

# 1971 PHILIPPINE *Yearbook*



**BUREAU OF THE CENSUS AND STATISTICS**  
**MANILA, PHILIPPINES**

**REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF COMMERCE AND INDUSTRY**

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## FOREWORD

The Bureau of the Census and Statistics has finally undertaken and completed the 1971 Yearbook of the Philippines. No publication of the Bureau has been as encompassing and as wide in scope as this Yearbook. It is the first of a series which will be published, designed primarily to give a qualitative and quantitative information on practically all aspects of the country's geographical, political, social, economic and demographic features. It presents a digest of changes that have taken place in the country which have modestly contributed in moulding it.

To be able to impart detailed discussions of important topics, the Yearbook is divided into twenty-six (26) chapters. The first two chapters relate the country's historical background and describe its geographical features and political set-up. Chapter III to IX is devoted to discussions of the Filipino people — their demographic characteristics, potentialities for development and the society in which they live. The remaining chapters convey a description and analysis of the country's economic structure including salient topics on factors contributory to the structural changes that the economy undergoes.

With this Yearbook it is anticipated that the needs of students, researchers and planners alike will be met and the layman's quest for a publication that will keep him well-informed of the country's status will be answered.

**TITO A. MIJARES**  
*Director*

*Manila, Philippines*  
*December 1973*

# ACKNOWLEDGEMENT

The voluminous and time-consuming job of compiling and presenting statistical information covering all aspects of the country would have rendered the publication of this Yearbook impossible were it not for the cooperation of major statistical agencies.

Data collection has been largely facilitated by the prompt and patient responses of requests for data and other relevant information by the following offices: the National Economic Council, Office of Statistical Coordination and Standards; the Department of Economic Research, Central Bank of the Philippines; the Bureau of Forestry, Bureau of Mines, Bureau of Agricultural Economics, Philippine Fisheries Commission, Reforestation Administration, and Parks and Wildlife Office, all of the Department of Agriculture and Natural Resources; the Weather Bureau, Bureau of Commerce, Securities and Exchange Commission, and the Board of Travel and Tourist Industry, Department of Commerce and Industry; the Bureau of Public Schools, Bureau of Private Schools, Bureau of Vocational Education and Board of National Education, Department of Education; the Bureau of Customs, Office of the Insurance Commission, and Bureau of Internal Revenue, Department of Finance; the Disease Intelligence Center, Bureau of Medical Services and Bureau of Health Services, Department of Health; the Bureau of Prisons and Board of Pardons and Parole, Department of Justice; the Labor Statistics Service of the Department of Labor; the Bureau of Public Highways, Bureau of Public Works, Bureau of Posts, and Bureau of Telecommunications, Department of Public Works and Communication; the Welfareville Institution and Bureau of Training Research and Special Project, Department of Social Welfare; the Land Transportation Commission, the Commission on Elections; the Civil Service Commission; the National Waterworks and Sewerage Authority; the National Electrification Administration and the National Power Corporation. Similarly, the Manila Electric Company, National Investment and Development Corporation, Private Development Corporation and other private institutions greatly helped in supplying data for this undertaking.

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## WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In the Philippines, as a rule, the English and Metric systems of weights and measures are followed, in addition to some local units of weights and measures. The following list of coefficients may be used to translate amounts expressed in one unit to the other. The local weights and measures are available for each province and may be obtained from the Agriculture Division of the Bureau of the Census and Statistic.

### Local Weights and Measures

1 chupa = 0.375 liters	1 picul = 63.25 kilograms
1 ganta = 8 chupas	= 100 catties
= 3 liters	1 bale = 2 piculs
1 cavan = 200 chupas	= 126.5 kilograms (abaca)
= 75 liters	= 2 1/2 quintals
= 25 gantas	= 115 kg. net (tobacco)
= 44 kilograms (palay)	1 quintal = 50 kg. gross
= 57 kilograms (corn)	= 46 kg. net (tobacco)
1 can (kerosene) = 5 gallons	1 metric quintal = 100 kilograms
= 20 liters	1 Spanish quintal = 101 pounds
1 gallon = 3.7853 liters	= 46 kilograms
1 catty = 1.394 pounds	= 4 arrobas
= 0.632 kilogram	1 hectare = 3,577 brazas cuadradas
1 arroba = 25.36 pounds	= 35.77 loanes
= 11.5 kilograms	= 3,577 balitas
1 picul = 139.44 pounds	= 0.3577 cuinon

### Metric Equivalent

#### Linear Measure

1 centimeter = 0.3937 in.
1 decimeter = 3.937 in.
= 0.328 foot
1 meter = 39.37 inches
= 1.0936 yards
= 3.28 feet
1 dekameter = 1.9844 rods
1 kilometer = 0.62137 statute mile
= 0.540 nautical mile
1 inch = 2.54 centimeters
1 foot = 3.048 decimeters
= .3048 meter
1 yard = 0.9144 meter
1 rod = 0.5029 dekameter
1 statute mile = 1.6093 kilometers
1 nautical mile = 1.852 kilometers

#### Square Measure

1 sq. centimeter = 0.1550 sq. in.
1 sq. decimeter = 0.1076 sq. ft.
1 sq. meter = 1.196 sq. yd.
= 10.76 sq. ft.
1 are = 3.954 sq. rods
= 100 sq. m.
1 hectare = 2.47 acres
= 10,000 sq. m.
= 100 ares
1 sq. km. = 0.386 sq. mile
1 acre = 0.4047 hectare
1 sq. mile = 2.59 sq. kilometers
1 sq. inch = 6.452 sq. cms.
1 sq. foot = 0.0929 sq. m.
1 sq. yard = 0.8361 sq. m.

## Weights

1 gram	= 0.03527 oz.
1 kilogram	= 2.2046 lbs.
1 ounce	= 28.35 grams
1 pound	= 0.4536 kilogram
1 short ton	= 2,000 pounds
	= 907.18 kilograms
	= 0.9078 metric ton
	= 0.8929 long ton
1 metric ton	= 2,205 pounds
	= 1,000 kilograms
	= 1.1023 short tons
	= 0.9842 long ton
1 long ton	= 2,240 pounds
	= 1,016 kilograms
	= 1.12 short tons
	= metric tons

## Volume

1 cu. cm.	= 0.061 cu. inch
1 cu. meter	= 35.31 cu. ft.
	= 1.308 cu. yds.
1 cu. inch	= 16.35 cu. cms.
1 cu. foot	= 0.0283 cu. meter
1 cu. yard	= 0.765 cu. meter

## Capacity

1 milliliter	= 0.0330 U.S. liquid ounce
1 liter	= 1.057 U.S. liquid quarts
	= 0.908 U.S. dry quart
1 U.S. fluid ounce	= 29.57 milliliters
1 U.S. fluid quart	= 0.946 liter
1 U.S. dry quart	= 1.101 liters

## Temperature

Fahrenheit ( $^{\circ}\text{F}$ )	= $9/5\ ^{\circ}\text{C} + 32$
Celsius ( $^{\circ}\text{C}$ )	= $5/9\ (^{\circ}\text{F} - 32)$
Absolute or Kelvin ( $^{\circ}\text{K}$ )	= $^{\circ}\text{C} - 273.15$

## Abbreviations or Symbols Used

CY	= Calendar Year	(Jan. 1-Dec. 31)
SY	= School Year	(June-April)
FY	= Fiscal Year	(July 1-June 30)

## CHAPTER I. — PHYSIOGRAPHY AND RELATED SCIENCES

### Introduction to Philippine History

The Philippines is a small country with wonderful treasures of tropical allure. It is a part of Asia and yet physically separated from it. It should belong to the Pacific Island group, but geographers have tagged it an Asian country. Its history is a fascinating story woven out of the lives of people cherished in their homeland and remembered in many other lands.

Magellan, the great navigator, shared this history by a misjudgment of facts which resulted in his untimely demise without knowing what he had accomplished. Miguel Lopez de Legaspi founded a great city (Manila) which, over 400 years afterwards, was to play host to six heads of states in a determined, unified effort to prevent another world holocaust. Commodore George Dewey defeated the Spanish navy, brought down the Spanish flag, and had it replaced by the Stars and Stripes. General Yamashita humbled the defenders of Bataan and Corregidor and forced the mighty Armed Forces of the United States to wave the white flag to an enemy. General Douglas MacArthur kept his word "I Shall Return" and finally liberated the Philippines in 1945.

For over 400 years the Philippines tried, and finally succeeded, in shedding off colonialism. Today, there is no bitterness within their way of life nor their attitude towards people who had made them suffer. Gaiety seems a trait and this trait can be found strongly expressed in the things they say, in the music they write and in the songs they sing. In their barrio fiestas, Filipinos are at their very best full of merriment and enjoying every moment of a village play or a native folk dance.

The Philippines is the only Christian country in Asia. The Filipinos are not only Christians, they are also devout Catholics. The country outnumbers many other countries of the world in number of churches.

The Philippines, small as it is, is a valuable part of world history and is bound to continue to play its part in it.

### Geographical Data of the Philippines

The approximate land area of the Philippines is 116,000 square statute miles (300,000 square kilometers), 9,470 square statute miles of which is contained within the eleven largest islands of the group, these being among the 357 islands with areas of one square miles or more, as shown in Table I.1. below.

Table I.1 — NUMBER OF NAMED AND UNNAMED ISLANDS, NUMBER OF SQUARE MILES, SQUARE KILOMETERS AND LOCATION

Principal Islands	Square Miles	Square Kilometers	Total	Principal Islands			Location
				Named	Unnamed	Area of one sq. mile or over	
1. Luzon	40,420.0	104,687.8	2,016	589	1,427	55	Northern part of the group
2. Mindanao	36,536.7	94,630.09	1,018	431	587	49	Southern part of the group
3. Samar	5,050.2	13,080.0	603	240	363	37	East Central part of the group
4. Negros	4,905.5	12,705.12	97	20	77	4	Southern part of the group
5. Palawan	4,550.2	11,785.11	1,169	649	520	63	Extending northeast from Borneo
6. Panay	4,446.0	11,515.14	407	133	274	23	West central part of the group
7. Mindoro	3,758.5	9,734.55	127	38	89	7	Northwest part of the group
8. Leyte	2,785.5	7,214.42	116	64	52	9	Southwest of Samar
9. Cebu	1,707.3	4,421.95	167	55	112	10	East of Negros Oriental
10. Bohol	1,492.2	3,864.80	118	81	37	10	Southeast of Cebu
11. Masbate	1,262.2	3,269.00	121	61	60	9	West of the north end of Samar
Sulu Group 1/			958	369	589	67	
Rombion Group 1/			158	26	132	9	
Marinduque 1/			25	17	8	5	

1/ Small group of islands considered as principal islands.

Source: Geographical Data of the Philippines, Revised January 1962, Bureau of Coast and Geodetic Survey.

The Philippines is a country of approximately 7,100 islands and lies between latitude 4° 23' North and 21° 25' North, between longitude 116° East and 127° East. The largest part of the island lies within an elongated ellipse with the major axis extending north by northwest and south by southeast. Palawan and Sulu Archipelago extend from this main body in a southwest direction towards Borneo forming the northwest and southeast boundaries of Sulu Sea, respectively. The greatest length extending from north to south of the archipelago is 1,150 statute miles and the greatest breadth east to west is 660 miles.

Politically, the Philippines is divided into three parts, Luzon, Visayas and Mindanao, consisting of 10 regions which are composed of 67 provinces (Manila is considered a province for census purposes), 60 cities, 1,425 municipalities, 32,048 barrios, and 20 municipal districts, with a population of 36,684,486 as of May 6, 1970.

Table I.2 shows the estimated land area and total number of cities, municipalities, barrios and municipal districts by region and province, as of the latest census in May 1970.

Table I.2.—ESTIMATED AREA AND TOTAL NUMBER OF CITIES, MUNICIPALITIES, BARRIOS, AND MUNICIPAL DISTRICTS, BY REGION AND PROVINCE: AS OF MAY 1970

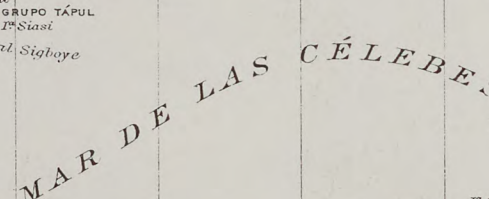
Region and province	Area (Hectares)	Cities	Municipalities	Barrios	Municipal districts	Region and province	Area (Hectares)	Cities	Municipalities	Barrios	Municipal districts
<b>PHILIPPINES</b>	30,000,000	60	1,425	32,048	-	<b>Sorsogon</b>	214,144	-	11	207	-
<b>Region I - Manila</b>						<b>Region VII - Western Visayas</b>					
Manila	3,828	1	-	-	-	Aklan	181,789	-	17	310	-
<b>Region II - Ilocos and Mt. Province</b>						Antique	252,201	-	18	545	-
Abra	397,555	-	22	266	5	Capiz	263,317	1	16	406	-
Benguet	265,538	1	13	133	-	Iloilo	532,397	1	46	1,795	-
Ifugao	251,778	-	7	103	-	Negros Occidental	792,607	6	25	478	-
Ilocos Norte	339,934	1	19	451	3	Romblon	135,993	-	14	190	1
Ilocos Sur	257,998	-	32	695	2	<b>Region VIII - Eastern Visayas</b>					
Kalinga-Apayao	704,764	-	18	189	-	Bohol	411,726	1	46	987	-
La Union	149,399	-	20	530	-	Cebu	508,839	5	48	1,064	-
Mountain Province	209,733	-	10	123	-	Eastern Samar	433,965	-	23	424	-
<b>Region III - Cagayan Valley and Batanes</b>						Leyte	626,826	2	49	1,250	-
Batanes	20,928	-	5	25	1	Leyte del Sur (Southern)	173,480	-	17	386	-
Cagayan	900,267	-	29	659	-	Negros Oriental	574,577	3	28	636	-
Isabela	1,066,456	-	34	882	2	Northern Samar	349,795	-	23	422	-
Nueva Visaya	696,107	-	15	210	2	(Western) Samar	559,103	1	22	664	-
<b>Region IV - Central Luzon</b>						<b>Region IX - Northern Mindanao</b>					
Bataan	137,296	-	12	399	-	Agusan del Norte	259,029	1	10	153	-
Bulacan	267,203	-	24	514	-	Agusan del Sur	896,550	-	13	146	-
Nueva Ecija	528,433	3	29	650	-	Bukidnon	629,378	-	19	340	-
Pampanga	213,968	1	21	517	-	Camiguin	22,977	-	5	48	-
Pangasinan	536,318	2	43	1,210	-	Lanao del Norte	309,204	1	18	434	2
Tarlac	305,345	-	17	450	-	Lanao del Sur	387,289	1	28	1,237	-
Zambales	371,440	1	13	168	-	Misamis Occidental	193,932	3	13	395	-
<b>Region V - Southern Luzon Islands</b>						Misamis Oriental	397,006	2	24	360	-
Batangas	316,581	2	32	884	-	Surigao del Norte	273,902	-	26	317	-
Cavite	123,755	3	19	315	-	Surigao del Sur	455,216	-	18	298	-
Laguna	175,973	1	29	599	-	<b>Region X - Southern Mindanao and Sulu</b>					
Marinduque	95,925	-	6	196	-	Cotabato	1,644,138	1	34	1,022	-
Occidental Mindoro	587,985	-	11	115	-	South Cotabato	735,567	1	14	237	-
Oriental Mindoro	436,472	-	15	330	-	Davao del Norte	812,979	-	19	296	-
Palawan	1,489,626	1	20	314	-	Davao del Sur	637,762	1	13	408	-
Quezon	1,194,515	1	47	1,175	1	Davao Oriental	516,446	-	11	135	-
Rizal	185,961	3	26	409	-	Sulu	268,784	-	21	415	1
<b>Region VI - Bicol and Masbate</b>						Zamboanga del Norte	607,519	2	18	366	-
Albay	25,257	1	17	592	-	Zamboanga del Sur	992,211	3	30	864	-
Camrines Norte	211,249	-	11	238	-						
Camrines Sur	526,682	2	35	922	-						
Catanduanes	151,148	-	11	207	-						
Marikina	404,769	-	21	462	-						

✓ Change to Samar instead of Western Samar.

The country is said to be of inexhaustible fertility. All tropical fruits flourish here, as well as abaca, coconut, sugar cane, tobacco and timber which are the principal exports of the country. Its climate is generally pleasant, with only two pronounced seasons, the wet and dry seasons.

Each province is independent with its own economic income and administers its own natural resources. The progress of its economy depends on its topography, climate, natural resources and geographical location.







## Inland Waters

The source of water supply comes from different river basins in which the rains play an important role.

Cagayan River with its tributaries drains a basin of approximately 10,000 square miles. The river is navigable for small streamers with six feet draft for twelve miles, and for launches and bancas of three feet draft for 75 miles. During wet seasons, bancas ascend the river to about 180 miles from its mouth.

The Central Plain of Luzon is drained by Agno River and its tributaries which empty into Lingayen Gulf in the north and by Pampanga River and its tributaries which flow into Manila Bay in the south. Their flows vary greatly with seasons and are not navigable except by small launches. The extent of this valley is only about 4,000 square miles although the area drained by two river is much greater. There are two important rivers in southeastern Luzon, though there are several plateaus and valleys of considerable sizes.

Visayan Islands have no large river although several islands can be entered by launches and small boats.

In Mindanao, Agusan River has its source in a comparatively low watershed that separates the valley from the one towards the north of Davao Gulf. The rivers are navigable by small streamers with about nine feet draft to Butuan about 5 miles up from its mouth. Small boats and launches having four feet draft can ascend the river about 70 miles. The valley land tributary to Agusan River is about 1,000 square miles.

Cotabato Valley or basin is drained by Mindanao (Cotabato) River which empties into the Moro gulf. Small streamers with 8 feet draft crossbar can ascend the river five miles toward the town of Cotabato. Launches with three and one-half feet draft can ascend the river 60 miles further. The river flows through a fertile valley, about 30 miles in width which scarcely shows any change of level.

There are thirty five (35) principal rivers with varying lengths and depths as shown in Table I.3 below.

Table I.3 — Principal Rivers, Length and Sizes of Ascending Vessels

Principal Rivers	Length (Miles)	Vessels	Draft (Feet)
1. Agusan River	20	ships	6
2. Polangi River	7	small steamers	—
3. Bicol River	25	vessels	9
4. Caluag River	6	small native craft	6
5. Talisey and Lanao Rivers	2	small native boat	2
6. Calumpang and Pansipit Rivers	5	rafts	—
7. Laboc River	3	boats	8
8. Mabanga River	3	boats	6
9. Ipil River	8.5	boats	5
10. Plaridel River	20	boats	—
11. Cagayan River	13	vessels	—
12. Panay and Aklan Rivers	10	small craft	—
13. Cabiangan River	3	bancas	—
14. Abra River	30	rafts	—
15. Jalarud River	60	rafts	—
16. Iloilo River	1	small ships	—
17. Jaro River	35	rafts	—
18. Pinacananan River	8	small crafts	—
19. Pagsanjan River	5	small native crafts	—
20. Magat River	6	small crafts	—
21. Binahaan River	15	cascos	—
22. Naujan River	6	small crafts	—
23. Mindanao River	40	small steamers	—
24. Tagum River	25	craft	5
25. Danao River	8	steamers	10
26. Ilug River	8	small boats	—
27. Himugan River	4	launches	—
28. Pampanga River	25	launches	—
29. Pasig River	10	launches	—
30. Agno River	60	small crafts	—
31. Pasig River	1	small ships	—
32. Carubig and Gandaro Rivers	20	small crafts	—
33. Putiso River	10	vessels	5
34. Donsoi	10	small crafts	—
35. Irosin or Cadacan River	13	cascos	5

## Inland Lakes

There are several principal lakes of great importance in the country. One such Lake is Laguna de Bay which is situated about 9 miles east of Manila. Along the shore of this lake are located 26 important towns. The entire shore is paralleled by first class roads.

Lake Taal is situated about 45 miles south of Manila, and is also in an important agricultural district. A volcano island in the middle of the lake has a crater lake that is known for its destructive eruption.

Lake Lanao is approximately in the middle of Lanao del Sur in Mindanao. Along the shores of Lake Lanao are 17 towns.

Lake Mainit is near the northern extremity of Mindanao. It is said to be the crater of an extinct volcano and a great source of fish. "Mainit" means hot which comes from the many hot springs found along its shore.

Naujan Lake is found in the north eastern extremity of Mindoro Island, separated from the sea by a strip of land about one mile wide. This lake abounds in crocodiles, ducks and fish.

Lake Buluan is situated in the center of the southern part of Mindanao island and is in the center of an important agricultural district in Cotabato.

Elevation and areas of principal lakes are shown in Table I.4 below.

**Table I.4—ELEVATION AND AREAS OF PRINCIPAL LAKES**

Principal Lakes	Elevation above sea level (feet)	Area (Square statute miles)
1. Laguna de Bay	6	356
2. Lake Lanao	2,297	134
3. Lake Taal	984	103
4. Lake Mainit	82	58
5. Lake Naujan	a/	27
6. Lake Buluan	a/	23

a/ Not available.

Source: Geographical Data of the Philippine Coast and Geodetic Survey.

On the other hand, Table 1.5 presents the list of lakes by province, showing the latitude, longitude, as well as area in square kilometers.

Table 1.5 — AREA AND LOCATION OF PHILIPPINE LAKES

Name of Lake	Province	Latitude		Longitude		Area in square km.
		(Degree)	(Min)	(Degree)	(Min)	
1. Laguna Encantada <sup>1/</sup>	Laguna	14	11.00	121	12.30	0.2600
2. Baso	Camarines Sur	13	28.00	123	19.00	6.7184
3. Balinasayao	Negros Oriental	9	21.80	123	04.35	2.8615
4. Balut	Cotabato	7	19.75	124	18.70	2.0695
5. Bato	Albay-Cam. Sur	13	20.00	123	22.00	37.9250
6. Bito	Leyte	10	47.35	124	58.75	1.6966
7. Blingkong	Cotabato	6	08.10	124	55.90	4.6119
8. Buhi	Camarines Sur	13	26.00	123	30.00	10.1580
9. Buluan	Cotabato	6	39.10	124	48.65	61.4138
10. Bunot	Laguna	14	04.85	121	20.75	0.2960
11. Buranibud	Cotabato	7	37.80	124	31.15	1.0223
12. Butig	Lanao	7	45.00	124	16.70	5.1401
13. Calabesigan	Cagayan	18	11.40	121	44.50	1.8400
14. Calapan	Mindoro	13	24.15	121	10.70	0.6438
15. Calibato	Laguna	14	06.45	121	22.80	0.4300
16. Calnangan	Mindoro	13	22.40	121	08.00	1.1173
17. Cambirog	Leyte	10	25.60	124	44.20	0.0979
18. Canarin	Tarlac	15	36.40	120	42.00	0.5024
19. Dagatan	Tayabas	14	00.40	121	22.15	0.0518
20. Dagianan	Lanao	7	54.72	124	02.40	0.8047
21. Danao	Leyte	11	04.60	124	01.75	1.9671
22. Danao	Leyte	10	52.20	124	51.20	0.3175
23. Danao	Negros Oriental	9	21.45	123	04.85	0.7358
24. Dapaw	Lanao	7	47.00	124	05.10	2.6655
25. Ibag	Leyte	11	18.35	124	49.30	0.1532
26. Labas	Cotabato	7	13.65	124	28.75	21.4000
27. Ladiaoan	Tarlac	15	44.50	120	23.60	0.4299
28. Laguna de Bay	Laguna-Rizal	14	20.00	121	15.00	890.7625
29. Lahit	Cotabato	6	12.10	124	42.35	2.4884

Name of Lake	Province	Latitude		Longitude		Area in square km.
		(Degree)	(Min)	(Degree)	(Min)	
30. Lamybyben	Bukidnon	7	29.00	125	03.85	0.6990
31. Lanao	Cebu	10	40.50	124	20.00	11.9200
32. Lanao	Lanao del Sur	7	53.00	124	17.20	339.9973
33. Loloog	Pangasinan	15	47.00	120	19.60	0.2290
34. Looc	Zambales	14	53.95	120	10.00	1.0360
35. Lumao	Agusan	8	26.00	125	42.50	16.8557
36. Lunay	Leyte	11	07.00	124	33.65	0.1073
37. Mainit	Agusan-Surigao	9	26.70	125	32.40	174.3017
38. Malinao	Cotabato	7	17.20	124	20.00	1.2978
39. Mangurao	Palawan	10	45.05	119	31.70	8.7500
40. Mantohod	Negros Oriental	10	11.00	123	12.95	1.0647
41. Maobog	Leyte	10	12.15	124	51.45	0.1411
42. Maugham	Cotabato	6	08.10	124	54.15	2.1228
43. Naujan	Mindoro	13	10.00	121	21.50	78.9951
44. Nunungan	Lanao	7	49.90	123	57.65	1.1756
45. Pacao	Pangasinan	15	54.10	120	17.40	0.0560
46. Pagusi	Agusan	9	18.10	125	33.20	25.3147
47. Paitan	Nueva Ecija	15	50.40	120	43.80	1.7100
48. Palacpaquen	Laguna	14	06.80	121	20.30	0.4350
49. Panden	Laguna	14	07.00	121	22.10	0.2400
50. Paoay	Ilocos Norte	18	07.45	120	32.50	4.0150
51. Patian	Lanao	7	47.20	124	37.10	1.9096
52. Sampaloc	Laguna	14	04.80	121	20.00	1.0540
53. Sebu	Cotabato	6	10.45	124	43.95	9.6412
54. Sultan	Cotabato	6	12.90	124	45.40	1.9734
55. Taal	Batangas	14	00.00	121	00.00	243.5636
56. Talao	Lanao	8	00.80	124	06.80	0.8062
57. Ticao	Tayabas	13	57.80	121	18.50	0.4144
58. Wood	Zamboanga	7	48.95	123	06.30	3.6519
59. Yambao	Laguna	14	07.20	121	22.00	0.3050

1/ Lake Alligator was changed to Laguna Encantada on July 22, 1969.

Source: Geological Data of the Philippines Coast & Geodetic Survey Revised 1962.

## Coastal Waters

The Philippines has an extensive coastline which "is greater than that of continental United States". The seacoast of the islands are indented with numerous bays, harbors, and gulfs. There are sixty-one fine harbors, eight landlocked bays, and numberless caves. Manila Bay, with rocky Corregidor standing guard at its entrance, is one of the finest harbors in the Far East.

There are no arid deserts nor bleak tundras in the country. The whole island is surrounded by the Celebes Sea, China Sea, Philippine Sea, and Sulu Sea.

## Mountains and Volcanoes

The Philippines has almost every variety of topographical features, from the low marsh, a foot or two above high water at the head of Manila Bay, to the high mountain masses of Mount Apo in Mindanao which is the highest peak of the Archipelago. However, the largest mountainous area as well as the most extensive valleys are found in the island of Luzon. The Cagayan Valley of northern Luzon extends southward from Aparri to a distance of over 120 miles, with an average width of 40 miles. The Sierra Madre Mountains to the east are steep, both from Cagayan valley and the oceans sides, and are largely unexplored. The Cordillera Mountains lie westward of the Cagayan valley and are the most extensive mountain ranges in the Philippines.

Mount Pulog is the second highest peak in the archipelago. This mountain is noted for its many fertile valleys, several of which open into an extensive coastal plain along the north and west coast of Luzon.

The Caraballo Mountains separate the Central Luzon plain or valley from that of Cagayan. Zambales Mountains lie westward and an extension of the Sierra Madre lies to the east of the Central Luzon Valley. These latter mountains continue southeastward and may be traced all along the east coast of the Philippines, as a fringe along the eastern edge of a shelf or fold. Further down south in the Bicol Region is the majestic Mount Mayon known for its perfect cone.

Mindoro, mountainous and high, is situated in the coastal plain on the east side and southwest side of the islands. Its interior topography is almost unknown.

Visayan Islands are generally rugged, having one or more mountain ranges with some coastal plains. Panay has the greatest area of level and rolling country, while Cebu has the least. Negros has high central mountains with most of its level land to the west and north-west. Masbate, Samar, Leyte and Bohol are more in the nature of rolling country and high plateaus.

Palawan is a high ridge with little level land. On the other hand, Mindanao has two large valleys, Agusan and Cotabato, with Cotabato valley having an area of about 1,800 square miles. Western Mindanao is mountainous with a rather narrow coastal plain.

Table I.6 shows the different mountains and volcanoes arranged in the descending order of their elevation in feet.

Table 1.6 - PRINCIPAL MOUNTAINS AND VOLCANOES

<u>MOUNTAINS AND VOLCANO</u>	<u>ELEVATION (In Feet)</u>
1. Mt. Apo	9,686
2. Mt. Pulog	9,606
3. Mt. Ragang	9,233
4. Mt. Canlaon or Malawspina	8,088
5. Mayon Volcano	7,946
6. Mt. Sto. Tomas (Mt. Tonglan)	7,416
7. Mt. Banahaw	7,141
8. Sierra Madre Mt.	6,560
9. Mt. Isarog	6,482
10. Mt. Cuernos de Negros or Mt. Magaso	6,244

Table 1.6- Principal Mountains and Volcanoes-continued

11. Mt. Bulusan	5,113
12. Mt. Malinao	5,077
13. Caraballo Mt.	4,920
14. Parker Greater Lake	4,000
15. Mt. Cagua or Caus	3,926
16. Mt. Pangasinan (Babuyan Claro)	3,805
17. Mt. Makiling	3,752
18. Mt. Arayat	3,378
19. Mt. Balut	2,895
20. Smith Volcano	2,198
21. Camiguin de Babuyan	2,043
22. Mt. Taal	1,312
23. Didicas Volcano (Submarine volcano)	748

Sources: "Catalogue of Philippine Volcanoes and Sulfatonic Area" 1966.

## Government Surveying and Mapping

The Board of Technical Surveys and Maps, with the cooperation of the coordinated agencies has prepared the topographical maps of Metropolitan Manila at scales 1:10,000 in eleven sheets, 1:25,000 in two sheets and the land maps of the same area at scale 1:25,000 in two sheets, covering approximately 880 square kilometers. These maps are for general circulation and are available to the public. Topographical maps of the Philippines at scale 1:50,000, 1:250,000 and 1:1,000,000 are now available to the general public, while topographical base maps at scale 1:1,000,000, 1:2,000,000 and 1:5,000,000 can be used now by the government agencies for the preparation of various economic maps.

The Presidential Advisory Council of Public Works and Community Development, with the assistance of various surveying and mapping agencies has completed the preparation of a Water Resources Atlas of the Philippines. This Atlas is limited in its distribution to certain government agencies and political sub-divisions. It has been prepared essentially for local consumption to meet urgent needs of political sub-divisions in their various economic activities.

Geological maps of Marinduque at scale 1:50,000 in six sheets, geological maps scale at 1:1,000,000, surface water resources map at scale 1:1,000,000 and soil cover map at scale 1:1,000,000 completed by the Bureau of Mines are now available to the public.

The Bureau of Coast and Geodetic Survey is responsible for the compilation, verification, printing and scaling of seven aeronautical charts at scale 1:1,000,000 and 1:500,000 and landing charts for local airports. These are also available to the public through the efforts of both the Bureau of Coast and Geodetic Survey and the Civil Aeronautics Administration. The country has horizontal and vertical control survey data but mostly of 2nd, 3rd and 4th order accuracy executed mostly in coastal regions to support hydrographic survey activities. The Bureau of Coast and Geodetic Survey has continued to expand the gathering of hydrographic data. It has surveyed about 6,900 statute miles of sounding lines which cover an area of about 750 square miles. It includes hydrographic and oceanographic survey of Manila Bay, Laguna de Bay, Cavite Harbour and other important harbours of the Philippines.

The Land Authority has completed approximately 40 percent of the aerial photography of the Philippines. This includes the Western, Central and Southern parts of Luzon, most of Palawan, the whole of Panay, 80 percent of Occidental Negros and about 90 percent of Mindanao islands. The Bureau of Forestry, in cooperation with the Philippine Air Force and the private sectors, has been supervising the aerial photography of various forest areas in Mindanao. Aerial photographs are made available to the public through the Department of National Defense.

The Reforestation Administration has surveyed and reforested 76,104.43 hectares of forest lands with the perimeter of 80,446 kilometers. It has also completed the ground survey of another 69,169 hectares preparatory to reforestation work.

The Bureau of Mines has surveyed and submitted for verification 170,208 hectares of mining claims and has approved 23,634 hectares of such surveyed claims.

The Bureau of Lands, which is in charge of coastal surveys has accelerated the issuance of land patents and executions of cadastral surveys implementing the land reform programme. It has issued about 300,000 patents covering about 589,800 hectares and has verified surveys of about 420,000 lots.

The Bureau has made a soil survey covering 7,486,003.8 hectares. It has also prepared reproducibles of soil maps of Camarines Norte and Ilocos Norte at scale 1:250,000.

The Board of Technical Survey and Maps extended its coordinative activities to foreign countries by acting as the Secretariat to the "Corresponding Working Group on the Co-operative Study of a Portion of South China Sea (Southwest of Palawan)". The Board also maintains a Library and Technical Information Unit to assist the general public. It has an exchange agreement with the U.S. Department of States for mutual exchange of surveying and mapping data materials and literature arranged through the Department of Foreign Affairs. This enabled the Board to acquire needed maps, books and other technical data. To date, the library has accumulated 2,516 technical and 789 non-technical publications, 246 control folios, 879 reference maps, topographical maps of the Philippines, 696 sheets at scale 1:50,000, 6 sheets at scale 1:1,000,000, 53 sheets at scale 1:25,000, economic maps of the Philippines, 6 sheets, soil cover maps at scale 1:1,000,000, 6 sheets Surface Water Resources maps at scale 1:1,000,000, 8 sheets Geological maps at scale 1:1,000,000 and 1 sheet surveyed Property maps at scale 1:250,000. The Board encourages its technical employees training and participate in technical seminars and conferences.

## **Geographic and Cartographic Activities of the Bureau of the Census and Statistics**

The Bureau of the Census and Statistics, aside from being the foremost statistical agency of the government and the central repository of all the civil registry records of the country, is also engaged, thru its Geography Division, in geographic and cartographic activities. This is to fill the Bureau's demand for maps with well defined boundaries, very essential in the conduct of efficient and accurate statistical surveys and censuses.

In the collection of statistics, enumeration areas have to be clearly defined and delimited to ensure that no areas are missed or overlap each other. Hand in hand with the mapping work is the research, compilation and maintenance of the lists, status and other pertinent data of all the political divisions and subdivisions of the country. These maps and listings must constantly be updated not only because they would be used in succeeding operations but also because other government and private entities, both local and foreign find great need for them.

Extensive mapping in the Bureau of the Census and Statistics had its early beginnings in 1956 when the Mapping and Census Preparation Unit, a joint project of the Bureau of the Census and Statistics and the National Economic Council was organized to undertake the preparatory work for the 1960 Censuses of Population, Housing and Agriculture. Thru extensive researches and various methods, this unit collected geographic data and mapping materials necessary to prepare the maps of all the political divisions of the country needed for the 1960 Censuses. It prepared detailed barrio, municipal, municipal district, provincial, congressional district and regional maps.

In 1958, the unit was integrated to the Bureau of the Census and Statistics, expanded and renamed Geography Division with the following objectives and functions: to maintain a complete system of maps for all administrative areas; to prepare maps of areas for use in the collection of census and survey data; to prepare graphic materials for the presentation of statistical data; to maintain a complete and up-to-date listing of the political divisions and subdivisions of the country; to determine standard forms of geographic and cartographic works; and, to coordinate with other government cartographic agencies in the execution of control surveys, topographic and map production.

The Geography Division constantly researches on laws like Executive Orders, Republic Acts, Provincial Board Resolutions, etc. as bases for updating the number and status of the country's political divisions and subdivisions.

## Geology

Some geologists, notably Dr. Bailey Willies, asserted that the Philippines was of volcanic origin. The eruption of sea-volcanoes in remote epochs caused the emergence of the islands above the waters, and in this way the Philippines was born.

The most popularly accepted theory, however, and one which is advocated by many scientists and scholars, states that the Philippines was once a part of Asia. During the post-glacial age, about 25,000 years ago, the world's ice melted, causing the level of the seas to rise; consequently, the lower region of the earth, including the land bridges connecting Asia and the Philippines, were submerged. Thus it came to pass that the Philippines was separated from the Asian mainland. Four reasons have been advanced in support of the theory, namely, (1) similarity of fauna and flora between Asia and the Philippines, (2) similarity of their rock structure, (3) existence of the shallow China Sea between Asia and the Philippines, and (4) presence of a fore deep at the eastern margin of the Philippines, indicating that the archipelago was the edge of the Asian continental platform.

Structurally, the Philippine Archipelago maybe considered as the crumpled edge of the Asiatic continental platform. The deepest known part of the Pacific is located 85 kilometers northeast of Mindanao. This fore deep is undoubtedly related to similar deeps off the coasts of Formosa and Japan, and from this it would seem that these island groups ought to bear about the same relationships to the mainland. However, it seems that between the Philippines and Formosa there is lack of connection marked by the Bashi Channel. Continued testimony from botanists say that the affinities in Formosa are all with Asia, while the Philippines are largely with Celebes, New Guinea, and Borneo. Similar relationships hold in the matter faunas.<sup>1/</sup>

West of the Archipelago is the much lesser deep of the China Sea, presumably a sunken area or Graben. This China Sea Graben is undoubtedly analogous to the submerged area between New Zealand and Australia, and the Asiatic mainland may bear the same relation to the Philippines that Australia does to New Zealand. The two long comparatively narrow interrupted land bridges between Borneo and the Philippines by way of Palawan and Sulu Archipelago, respectively, are significant features in the present framework of the Archipelago.

The land areas of the Philippines are merely the higher portions of partly submerged mountain mass, in part the crests of anticlinoria, in part the upthrust block and horst caused by faulting, in part the summit of volcanoes. Some of the Straits, consequently, are the downfolded areas of synclines, while others are Graben. There are volcanic intrusives and volcanic estrusives of different period, which further complicate matters.

As to the geologic time of the major deformation it can be stated with a fair degree of certainty that there was a period of intense deformation prior to the Tertiary when some of the schists were formed, although some schists appear very clearly to be the result of strong movements in Tertiary times. Toward the end of the Miocene, the widespread "Miocene Revolution", the Vigo and Batan formations were generally folded, in some places intensely crumpled and faulted. Again, late in the Pliocene, or early in the Pleistocene, there was another period of folding, though not so pronounced.

Finally, beginning with the Pliocene and continuing through the Pleistocene and Recent, much of the Archipelago has been subjected to a great uplift, amounting to some 1,800 meters in Luzon. Evidence of this is found in the fact that fossil plants, very closely related to species living in the lowlands near Manila, have been discovered in the extreme highlands of Luzon. It appears that the latest elevation was not uniform, but differential, perhaps a warping and great faulting. On the western side of the Archipelago there is much evidence of this recent uplift, especially indicated by raised beaches and reefs, notably on the

<sup>1/</sup> The large and important subject of the paleogeography, the region and the bearing it has upon the distribution of plants and animals will only be hinted here.



Ilocos and Batangas coasts, while part of the eastern coasts, especially in the Paracale region, drowned river valleys are found. In the eastern half of the groups, too, though not on the eastern coasts, there are two great rivers, the Cagayan in northeastern Luzon and the Agusan in northeastern Mindanao, where the tide runs for long distances. In spite of some local exceptions to this state of things like recent subsidence in Palawan, there has been a tilting of the Philippine block toward the Pacific, perhaps a down drag as a result of the subsidence of the oceanic block into the Mindanao deep.

There are principal arcs, and there exists a relation between these structural lines and the seismic regions of the Archipelago. These arcs fall into two series: an inner one, northeast and southwest, and the outer one, northwest and southwest. There is in addition a north and south series of trend lines, not arcs, giving with the others a threefold system.

The most important arcs and tectonic lines in the Archipelago beginning with the innermost to the west are as follows: the Palawan arc which is continued into northeast Borneo. This may be a fault line and not an arc of folding at all. This line seems to be continued through the Taal area and may have some connection with the Coast of Luzon northeast of Baler Bay. The Cagayan Arc is in the Sulu Sea. Then there is the Jolo arc, which is continued through Zamboanga Peninsula and also passes through Cebu Island. These three are the principal northeast and southwest trend lines. The northwest and southeast lines, including several that are nearly north and south, beginning at the west are: Zambales line through the extreme southwestern part of Luzon.

The Cordillera Central, running nearly north and south, is the backbone of Luzon. East of this, with synclinal intervening, lies the Sierra Madre line along the east Coast of Luzon. The Cordillera Central and Sierra Madre line coalesce in the Province of Nueva Ecija in what is called by Adams,<sup>2/</sup> the "Central Knot".

From the "Central Knot" a single line passes southeast through Tayabas Peninsula and eastern prong of Masbate, thence through Leyte and down the eastern margin of Mindanao. Well to the eastward of this line, in the extreme eastern part of Luzon, is the Camarines line, which runs more nearly east and west but the strikes of schistosity are not east and west but northeast. The three important points where these lines when projected appear to intersect are as follows: In southern Luzon, near Taal Volcano in northern part of Masbate, where there is an important gold field; northwestern Leyte, where petroleum residues from seeps have long been known. A fourth possible junction is in the northern part of Mindanao, near Camiguin Volcano.

Whether or not there is any direct connection between these facts is not certainly known, but they are strongly suggestive.

Although the principal tectonic lines in the Archipelago are in general north and south, the line of arcs makes a pronounced curve<sup>3/</sup> in the direction of Borneo, showing a tendency to fall in line with the principal tectonic lines of the rest of Malaysia, which have in great part an east and west direction. It is seen, therefore, that the Philippines form a part of a region, including Java, Borneo, Sumatra, etc., which, with reference to Asia and Australia, occupies a position analogous to that of Central America and the Antilles, with reference to North and South America. Therefore, the region is one of great importance in the study of the geology of the Pacific. Prior to the Miocene, there was undoubtedly sea connection with Europe by way of a greatly extended Tethys which reached from the Pacific to the Atlantic. Thus, the deposits formed in this depression and the structure subsequently produced are of great interest and importance.

As has been pointed out by some geologists, the outer arc is one of closely folded rocks, and within this outer arc is a line of volcanoes such as Taal, Canlaon and Camiguin. However, near the outer arc are two important cones that are active at intervals, Bulusan and Mayon<sup>4/</sup>. The innermost arc consists of folded rocks also, but with no sign of volcanism.

<sup>2/</sup> George Adams is one of the geologists who studied Philippine structures during his term of office at the Division of Mines, Bureau of Science, 1925.

<sup>3/</sup> There is objection to the use of the words "curve" and "arc" by some geologists who have studied the Philippine structure, but Warren D. Smith agrees with Becker (one of the geologists who studied Philippine structures and believes in curves and arcs).

<sup>4/</sup> Prof. W.H. Hobbs has indicated that the outer arc in the Philippine group is not the real outer arc toward the Pacific, but that this is to be found in the Marianas Islands, some 2,000 kilometers to the east of the Philippines.

Partially all of the principal rock types are found in the Philippines. On a basement complex of igneous rock there are many thousand meters of sediment, mainly of Tertiary age, with some small out crops of Mesozoic rocks, and these in turn are succeeded by lavas of the andesitic type, with great accumulation of more recent tuffs, and considerable areas of coral limestone.

Certain types of rocks predominate on the surface, at least in certain parts of the Archipelago; and it would seem that for a long time (for how many geologic periods it cannot be stated) there have been archipelagic conditions here, judging from the many islands of igneous rock, the erosion of which has produced the covering of sediments that are now found about those primordial cores.

The deep-seated rocks are naturally not very widely distributed on the surface and usually are found only in the canyons of the central ranges, whenever the streams have cut through the overlying more recent formations. They are particularly abundant in Northern Luzon, throughout Cordillera Central; in Palawan; the Cordilleras of Panay; the Central Cordilleras of Cebu and Leyte; the eastern Cordillera of Mindanao; and in Masbate.

In all parts of the island there is a large amount of extrusive materials which form a mantle over the deeper lying formations. These extrusive materials are naturally found around the volcanic areas, and they are pronounced in the Zambales Range of southwestern Luzon and various parts of Cordillera Central, lying above the old igneous rocks and Tertiary sediments. In Cordillera Central there exist great patches of andesite, marking early Tertiary volcanoes. In Zambales mountains, there is a development of andesite, indicating probably a still later period of volcanic activity. On Mount Arayat, which rises isolated out of the Central plain of Luzon, basalt occurs, and also around Taal Volcano and on Binangonan Peninsula. Extrusives are particularly well developed in the southeastern volcanic cluster of southeastern Luzon, comprising the well-known peak of Bulusan, Mayon, Isarog, etc. They are found overlying much of Masbate, particularly in the Central portion; also in western Panay; in a portion of Cebu; in most of northern Negros. In Central Leyte, and notably in Mindanao, a broad belt of extrusives is found running north and south through Apo and Matutum Ranges. There is a great patch of basaltic material around Lake Lanao, and Mount Malindag is the center of a great volcanic mass. There is also great development of these extrusives covering almost the entire islands of Basilan and Jolo and the lesser islands of the Sulu Archipelago. As yet, we know of extrusives in Palawan in only its northern part. The principal is largely andesitic.

Large and small laccoliths of diorite, granite and periodotite are innumerable throughout the islands. Cordillera Central's intrusions are generally diorite and quartz diorite. In the Camarines region, granitic intrusions cutting the diorite, and possibly, the sediments can be seen.

In Sulu Archipelago there is a number of small basaltic intrusions cutting some of the recent sediments.

Flanking all Cordilleras on both slopes, there is a greater or lesser development of sandstone, shells and limestones, which have been bowed upward in the Miocene and later uplifts with some minor crumpling at various points and accompanied by much faulting.

The folding in northern Luzon in many places has apparently been a gradual and gentle uplift of the strata. In Tayabas Peninsula (now Quezon) the flexures are sharper. In Zamboanga Peninsula the strata have been so intensely compressed that schists resulted. These schists have been considered by some to be older than the Tertiary, but there seems to be no good reason for not referring them, in part at least, to the Tertiary. The central portion of Mindanao consists of folded sediments and intrusives.

The major axis of folding in the Philippines is in general north and south; along the outside arc of the island, northwest and southeast; on the inside, northeast and southwest.

Metamorphic rocks occur more or less pronouncedly in various parts of the islands. In Ilocos Norte there is a considerable development of schist, and in Camarines region are schists and gneiss along the border of the granite intrusion referred to above. Schists have been found at several localities in Central Cordillera of Cebu; various points of Palawan; on

Zamboanga Peninsula, in Bukidnon Province, Mindanao, on Surigao Peninsula and just east of Davao Gulf; at one point on Tayabas Peninsula and Caramoan Peninsula, and southeastern Luzon. The schists appear to be for the most part metamorphosed sediments, although many are undoubtedly derived from basic igneous rocks.

Recent alluvium from the mountains deposited upon coral shelves has resulted in a greater or lesser development of coastal plains around many of the islands. The coastal plains are negligible, with the exception of the Occidental Negros plains, but some of the intermontane plains of Luzon are very important. The northwestern part of the Central plain of Luzon is largely alluvium. The Albay plain is also largely alluvium, as the great valleys of Cagayan, Agusan, and Cotabato Rivers. Also, the central plain of Panay showed a very considerable accumulation of detrital materials.

Around Manila there is, in addition, a great area of pyroclastic material which is cut through by Pasig River, known to be at least 300 meters thick. The Philippine sedimentary formation consists of the following in the order of their abundance: shells and clays, limestone, sandstone and conglomerates and tuffs (water inlaid and subaerial and cherts). The principal rocks in the order of their abundance are andesite, pyroclastics, quartz, diorite, old slates, small amount of limestone and alluvium.

## Archaeology

The Philippine National Museum was started in 1901 as the Insular Museum of Ethnology, Natural History and Commerce under the Department of Public Instruction. The name was changed from time to time since then on and after the Japanese occupation. On October 4, 1947, the National Museum was re-established with the status of a bureau by virtue of Executive Order No. 94. In 1951, by virtue of Executive Order No. 392 it was transferred to the Department of Education.

The first opportunity of the National Museum to study ancient man in the Philippines was made possible by the discovery of Tabon Caves,<sup>5/</sup> a number of limestone caves on the isolated southwest coast of Palawan Island. Excavations have recovered and disturbed fossils of *Homo sapiens* as well as revealed detailed data on occupation by Palaeolithic food gatherers, hunters and fishermen for at least 40,000 years. The flake assemblage IV in Tabon Cave is 121 centimeters, below the present floor. It was dated by the Associated Charcoal of the University of California, Los Angeles to be 30,500 years ago in 1100 A.D. and excavations are still going deeper. Artifacts are estimated to be 45,000 to 50,000 years old.

Excavations in Tabon Caves and many other sites in Palawan were made possible principally through the grants in aid from the Asian Foundation, National Science Development Board, and the National Geographic Society and these drew international recognition. Researches are still in progress and the detailed site reports of the caves which have diagnostic assemblages of cultural materials will be published when excavations and analysis are completed. The preliminary chronology is supported by 13 radiocarbon (C-14), dates of major interest to the Philippines and southeast Asian pre-history. A great wealth of archaeological materials were uncovered in Palawan. A number of archaeological expeditions were the highlight activities during the last 1968-69 fiscal year.

The Palawan project was also resumed with Jonathan Kress from Yale University working together with the National Museum teams.

The exploration on the western slopes of Cagayan valley by the museum's field team revealed 54 localities or sites, yielding Paleolithic tools, fossils of Pleistocene mammals or both, eroding from the slope and tops of grassy knolls and hills. The earliest artifactual and fossil materials found fall within the middle Pleistocene Epoch and date from 250,000 to 400,000 years ago. The excavations and research are the most complex and difficult ever attempted and the working set of the chronology and geomorphology of Paleolithic sites will require far greater resources, both in funds and technical personnel. The exploration of the fossil's sites are being made with 1:50,000 maps which the United States Army Engineers prepared from photogrammetric surveys.

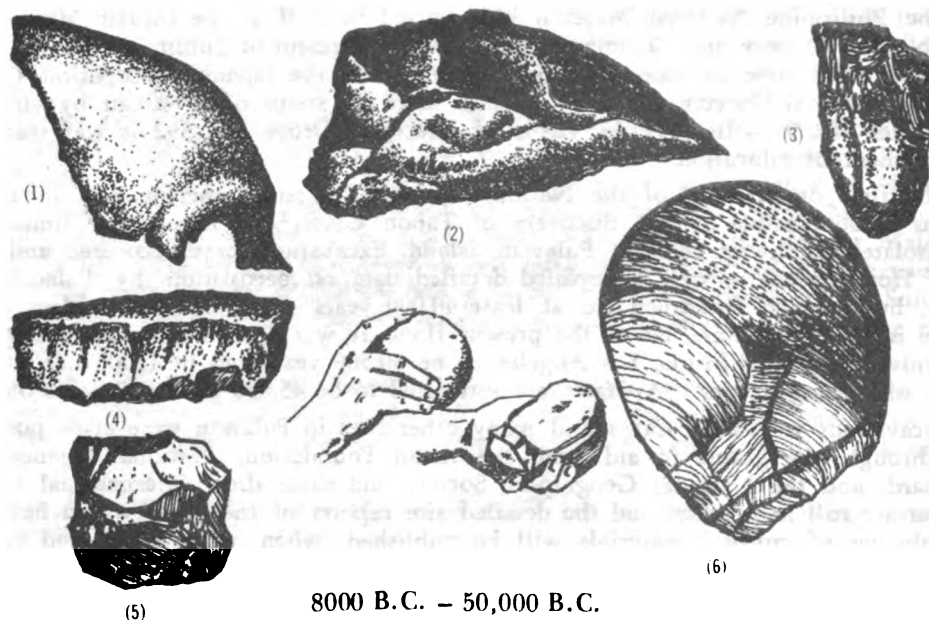
5/ The "Tabon Caves" archaeological explorations and excavations on Palawan Islands in the Philippines by Robert B. Fox.

Other sites known to contain relics and artifacts that will provide insights into the early cultures of the Philippines are among those found in Albay and Tamboc, Benguet Province. In Benguet, well-preserved mummies and burial jars were found. In collaboration with the Marine Science and Archaeology Foundation, researchers undertook archaeological work at Bolinao, Pangasinan. Studies and explorations were also conducted in Samar in relation with the multi-divisional project, "Ecology of Southern Samar", as well as in Batanes, and Cagayan. Exploration surveys and excavations were also done at Sanga-Sanga Islands in Sulu and Eastern Mindanao.

The team of Japanese scientists from the Osaka Museum of Natural History Research Project conducted joint scientific venture with some of the Philippine Natural Museum's botanists, entomologists and paleontologists covering parts of Luzon, Central Philippines and Mindanao.

A project study is being made for the proposed collection of Asiatic types including items from the Philippines to be set up by Australian Government in the Museum of Art and History at Canberra. Collection will reveal relationships between Philippines and Australia. Australia representatives expressed interest in assisting the National Museum's five-year archaeological program.

#### 50,000 YEARS OF PHILIPPINE PRE-HISTORY



8000 B.C. – 50,000 B.C.

#### OLD STONE AGE (PALAEOLITHIC)

Man is ancient in the Philippines having moved into the archipelago over land bridges during the Ice Age of Pleistocene epoch when the sea level was lower. As shown by the ancient stone tools and the fossil remains of a human (1) excavated in the famous Tabon Cave, located on the southwest coast of Palawan island, modern man (*Homo Sapiens*) reached the Philippines at least 50,000 years ago. . . .

The earliest Filipinos were food gatherers, hunters, and fishermen who sometimes lived in light and airy limestone caves, a common practice at that time throughout the world. Caves were also important as a source of edible bats and birds. The Tabon excavations have shown that the ancient Filipinos had very primitive tools made either from flakes or chert which had sharp cutting edges (2, 3, 4 and 5) or large chopping tools fashioned from pebbles (6). Excavations in Tabon Cave have shown that these types of tools did not change for more than 40,000 years.

In Cagayan Valley and in Pangasinan province, the fossil bones of extinct animals of the Pleistocene epoch have been found, including elephants, stegodons, rhinoceros, and giant tortoises, which date to perhaps 200,000 years ago. To this date, however, archaeologists have not found man-made tools in association with these ancient fossil mammals. But, the search continues.



500 B.C. - 200 B.C.

## NEW STONE AGE (NEOLITHIC)

When the sea level began to rise at the termination of the Ice Ages, the land bridges disappeared. The migrating peoples now used boats to sail into the Philippines. They brought with them tools which were vastly more efficient and the first agricultural techniques, probably the culture of rice & taro. Animals were domesticated such as the pig and chicken. Man moved out of the caves and began to settle along the coasts where fish, crabs, shrimps, and shellfish were plentiful. It is apparent that the people lived in small hamlets and that the population, except on Luzon, was small.

## LATE PHASE

The stone tool of the late Neolithic people were generally quadrangular in cross section (7, 8, 9 and 10) but included tools of other forms such as gouges (12) for boat building. Spear points (11) and ornaments (13) were also made of stone. During the Neolithic, clothing was made from the bark of trees in which beaters 14 & 15 fashioned from stone were used to pound the bark. About 1500 B.C., pottery (16) was introduced into the Philippines as well as the practice of placing the bones of the dead in pottery jars which were then hidden in the caves. The caves which had been used for habitation in the Old Stone Age now were used only for cemeteries.

## EARLY PHASE

The earliest Neolithic tools were ground only on the edge of the blade (19), the body of the early adzes being either natural or packed and flaked into axe-and adze-like forms. Later the stone tools were round or oval in cross-section (17) and (18).





1,000 A.D. – 200 B.C.

## METAL AGE

About 400 B.C. possibly earlier, the first metals – bronze (20) and (21), copper, gold – appeared along with beautiful ornaments made of jade (22) and (23), and other semi-precious stones. Shortly afterwards, by at least 200 B.C. iron appeared (24) sweeping throughout the archipelago so rapidly that it submerged any development of a true "Copper-Bronze Age" in the Philippines. The basic technological change was thus from stone-tool using to iron tools and weapons. It is believed that the type of forge used to work iron (25) was similar to that still found among the mountain peoples of the Philippines.

During the Metal Age the art of weaving with the back-loom (26) appeared. This type of loom is still used by mountain peoples such as the Ifugao of northern Luzon and the Mandaya of Davao. It is possible that glass-making was known during the metal age – beads and bracelets of green and blue glass being manufactured. Pottery-making continued to be highly developed as shown by the wide range of forms, commonly with high foot rims (27), and beautifully incised designs.

The dead continued to be buried in large earthenware jars either in caves or in open areas in which the jars had covers made of coral or a soft stone. The use of wooden coffins (28) appeared, for the first time, during the Metal Age. The coffins were also placed in caves.

This period saw a marked growth of the population along the coasts, bays, and rivers of the large islands, and by the latest phase of the Metal Age many of the basic features of present-day Filipino culture had emerged. Except for corn, the sweet potato, the cassava, and tobacco, all of which were introduced from the New World by the Spaniards, the basic crops which we know today – rice, millet, taro, root crops – were already planted during the Metal Age.



1100 A. D.

## CIVILIZATIONAL INFLUENCE

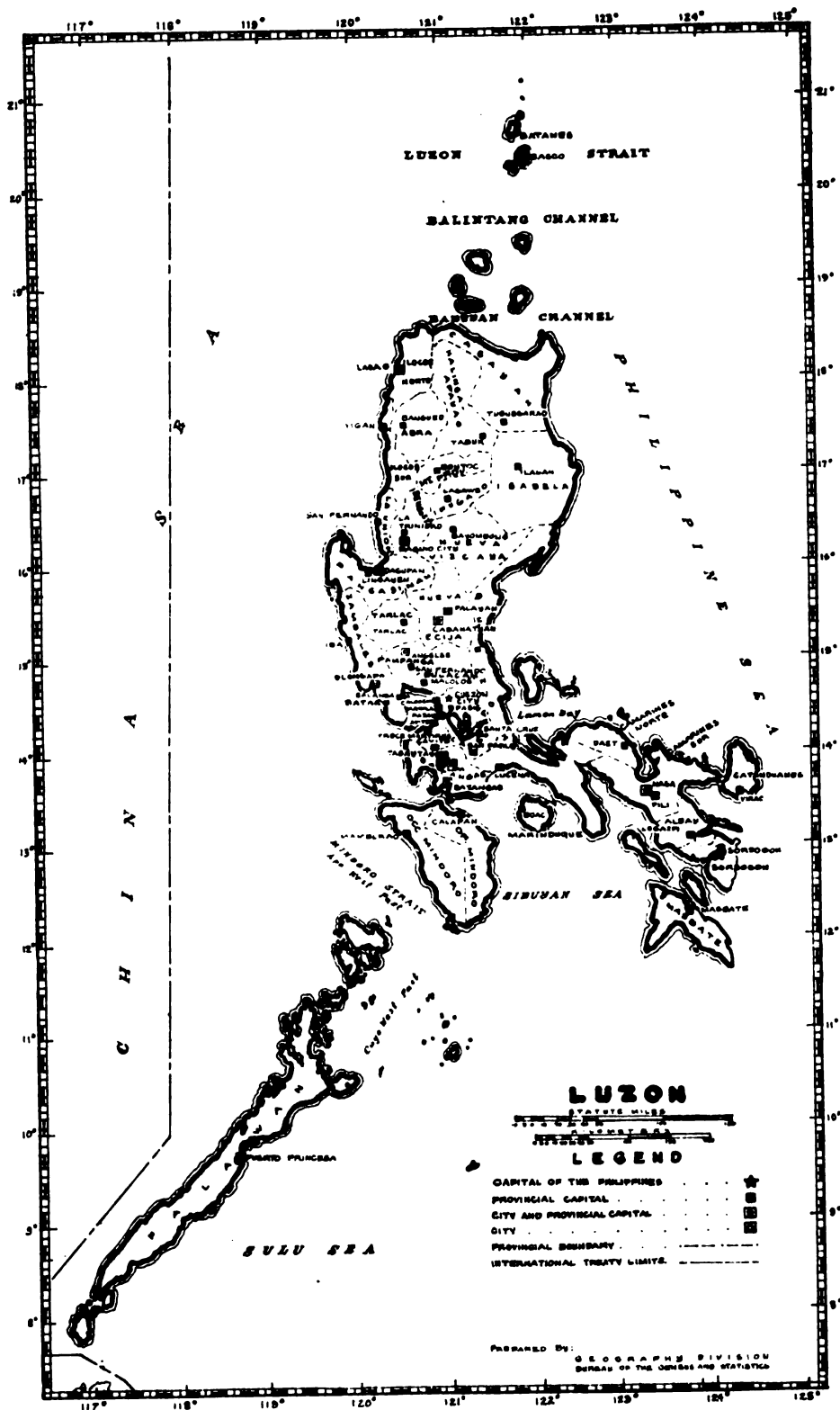
By the 12th century A.D., the coastal Filipinos were carrying on formal trade with India (Cambodia, Indo-China, Indonesia, Malaysia), China, Japan and Arabia. The principal trade was with South China merchants who, in junks (29), brought large quantities of pottery, (30), including jars (31), which became so highly valued that they replaced all Filipino-made pottery except those for household use (32). The Chinese also introduced the pottery stove (33) which is now so widespread in the islands.

In addition to pottery, the foreign merchants brought in cloth and iron and introduced new fishing devices, economic plants, new patterns of dress, and even traits of social life. The Filipinos in turn traded products of the land, sea and forest.

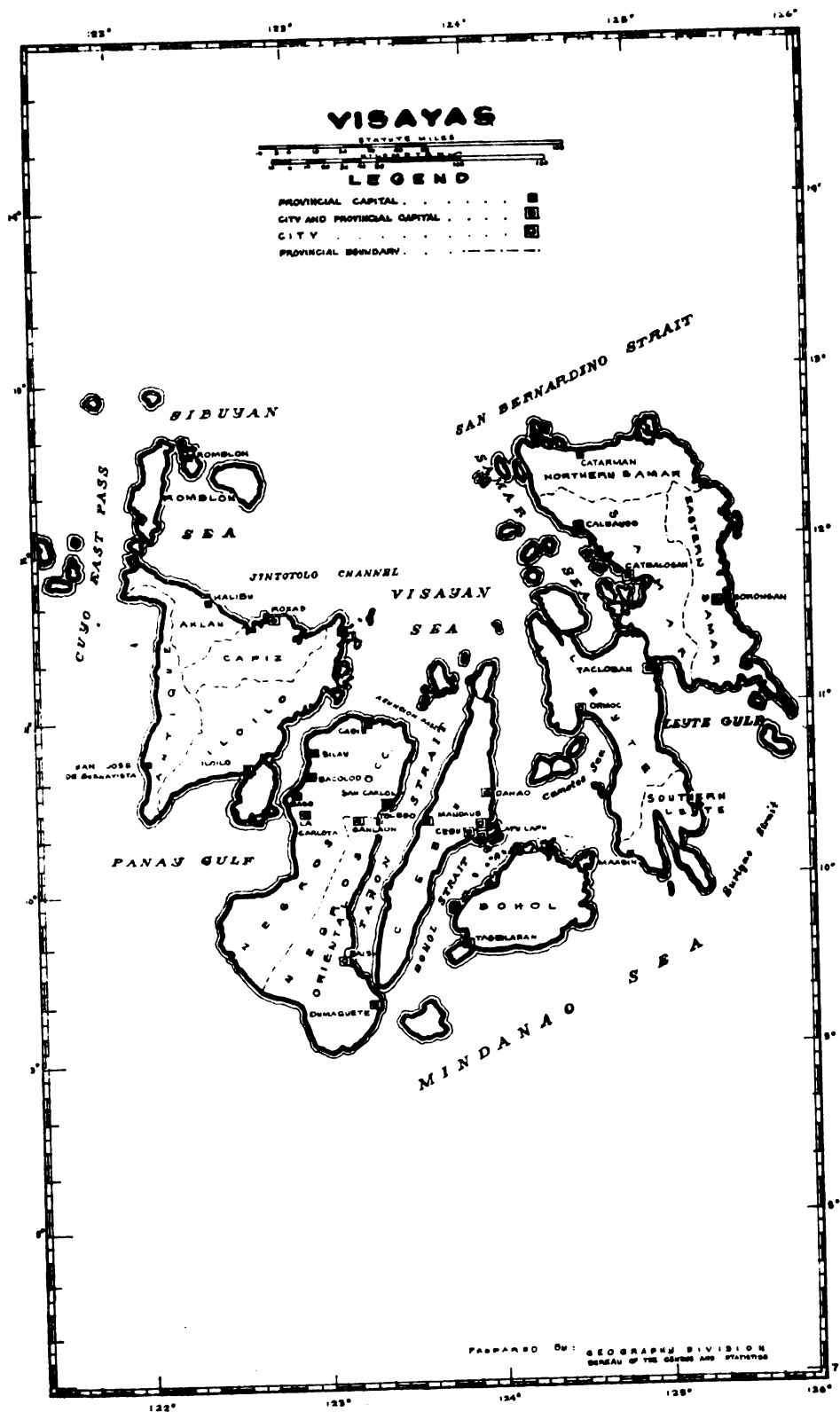
As contacts with the foreign merchants increased, trading centers emerged in Manila, Cebu, Jolo and other areas of the archipelago. By this time, too, most of the basic social and cultural features of contemporary Filipino life had crystallized and a generalized Filipino culture and society had emerged.

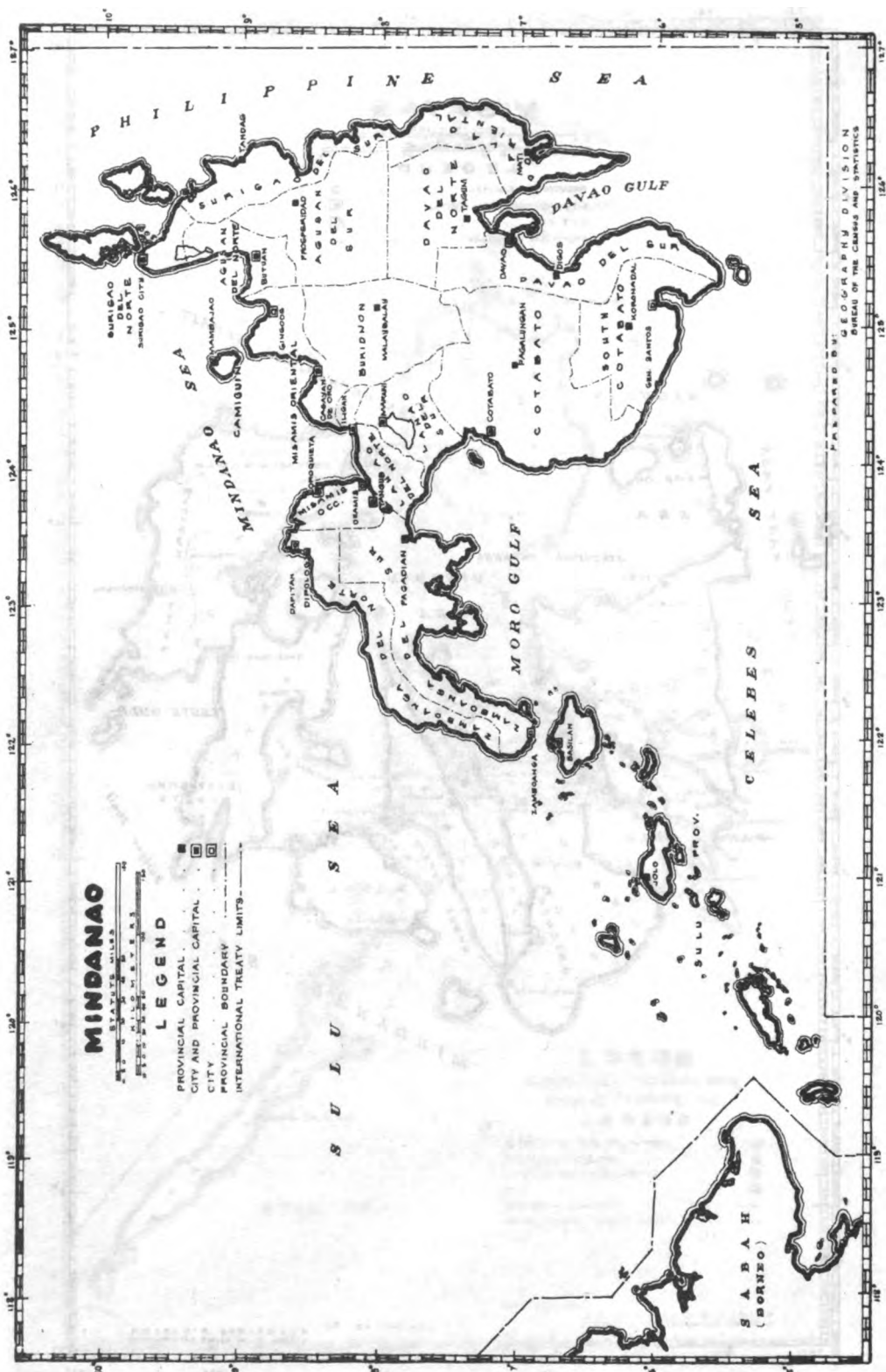
The Islamic religion was also introduced during this period, about the middle of the 15th century A.D., embracing the Filipinos of the Sulu Archipelago, southern Mindanao and Palawan. Still earlier, a type of syllabic writing was introduced from Indonesia and at the time of Spanish contact most of the coastal peoples in the Philippines were literate.

**Source:** Chart prepared by the Division of Anthropology, Philippine National Museum.









## Land Resources

Forests constitute one of the richest natural resources of the Philippines. They are found in all provinces. There are 3,000 species of trees in the Philippine forest, the most famous of which is the Narra, the best of Philippine woods.

As shown in Table I.7 below, 21,110,000 hectares, or 70.37 percent of the total land area of the Philippines is classified area while 29.63 percent or 8,889,900 hectares is still unclassified area.

Table I.7 - LAND RESOURCES OF THE PHILIPPINES, AREA AND PERCENTAGE, 1970

Description	Area (Hectares)	Per Cent
Total Area	30,000,000	100.00
Unclassified Area	8,889,900	29.63
Expected additional timberland	4,062,335	13.54
Occupied by squatters	727,494	2.42
Future disposable area	4,100,071	13.67
Classified Area	21,110,100	70.37
Timberland	8,537,665	28.46
Patented land	3,735,416	12.45
Judicially registered land	2,522,937	8.41
Claimed as private property or occupied by squatters	1,938,278	6.46
Public land applications pending approval	1,510,768	5.03
Reservation	1,328,283	4.43
Pending patent	1,154,504	3.85
Available for present allocation and disposition	311,209	1.04
Awarded leasees	70,970	0.24

Source: Bureau of Land.

Table I.8 below, shows the area for productive forest and unproductive forest as well as non-forest areas such as open lands, managed pastures, agricultural lands and urban centers, by regions.

Table I.8 - LAND AREA CLASSIFIED AS AGRICULTURAL OR FOREST LAND, BY REGION: AS OF JUNE 30, 1970

Description	Total		Luzon		Visayas		Mindanao		Palawan		
	Both	Public Forest Land	Allotted Land	Public Forest Land	Allotted Land	Public Forest Land	Allotted Land	Public Forest Land	Allotted Land	Public Forest Land	
<b>PHILIPPINES</b>	<b>30,000,000</b>	<b>27,427,363</b>	<b>12,772,437</b>	<b>6,381,000</b>	<b>2,139,498</b>	<b>2,471,608</b>	<b>3,307,375</b>	<b>6,436,092</b>	<b>3,765,789</b>	<b>1,210,422</b>	<b>278,804</b>
Total Forest	15,898,899	12,785,295	3,313,604	4,996,874	1,038,292	1,771,784	975,815	4,883,704	1,324,180	1,153,543	184,117
Productive Forest	14,114,387	11,076,765	3,097,962	4,064,986	1,023,495	1,638,907	957,198	4,538,201	1,302,922	819,731	173,967
Highwayway	13,610,655	10,608,510	3,002,145	3,829,549	1,003,018	1,571,266	940,034	4,425,606	1,291,937	782,109	167,143
Fire	215,637	207,082	8,555	207,082	8,555	60,663	17,164	112,555	10,985	37,622	6,804
Swamp	288,035	241,173	46,862	30,295	11,909	60,663	17,164	112,555	10,985	37,622	6,804
Unproductive Forest	1,784,512	1,708,530	36,042	909,748	14,797	139,487	17,817	345,305	11,258	333,812	12,170
Total Non-Forest	14,185,101	4,442,268	9,438,268	1,934,366	4,360,196	1,100,254	734,341	1,550,389	2,462,609	57,279	94,687
Non-Forest											
Open Land	2,446,468	1,002,719	1,443,789	493,865	551,366	366,814	596,822	113,815	28,225	30,456	...
Managed Pasture	839,676	792,794	66,882	341,078	9,777	77,995	37,305	35,985	...	10,135	...
Barren and small water	214,830	92,480	122,190	30,934	60,446	8,385	31,987	52,268	26,732	1,173	1,425
Undeveloped and plantation/urban and other	9,784,782	2,439,022	7,355,780	992,095	3,377,138	560,561	604,281	879,793	906,218	14,782	57,853
	609,345	305,113	280,132	76,413	181,269	86,999	62,566	160,748	31,534	923	2,885

✓ All denuded forest lands (less than 10% stocked) croplands, plantations and grazing lands that had been abandoned: also areas of exposed soil resulting from landslides or erosion.

✓ All natural, wet areas characterized by a cover of grass, weeds or fern and the absence of trees.

✓ Non-forest lands planted within the past 12 months to low crops such as vegetables, rice, corn or sugar cane, non-forest lands planted to high crops such as coconut, banana, abaca, citrus or rubber.

✓ Areas occupied by cities, towns, education institutions, industrial sites, quarries, waste fields, beaches, barren and desert, exposed rock, commercial fisheries, etc.

Source: Bureau of Forestry.

## Wild Life Resources and Conservations

Parks and Wildlife Office is an agency of the Department of Agriculture and Natural Resources, which is responsible for the administration of various laws relating to the promotion, construction, maintenance and operation of national parks, national monuments, game refuges, bird sanctuaries, and game farms. In addition, it cooperates with and provides assistance to provinces, municipalities and chartered cities in the development and maintenance of parks and recreational areas. It is the primary Philippine government agency concerned with planning, promoting and developing public recreation opportunities and conservation and protection of native flora and fauna for the benefit of present and future generations.

The Philippines is lavishly endowed with areas of scenic, scientific and historic qualities: verdant forest, scenic mountains, beautiful lakes and streams, waterfalls, mineralized hot springs, volcanoes, deep canyons and varied geological formations. To make these area available to the people and to protect them from exploitation and possible destruction, over 50 national parks have been created by legislative enactment and extensive areas have been established as game refuge and bird sanctuaries. Because of difficult accessibility and limited accommodation facilities, the vast outdoor recreational potentials of these areas are presently very limited.

In addition to the nationally established outdoor reservations, there are numerous provincial, city, municipal and barrio-established areas available for recreational use. Taking all types of outdoor recreation into account, the most popular are swimming, boating, picnicking at ocean beaches, rivers, streams and lakes.

The Philippines abound in animal life. There are more than 60 species of bats, five species of monkeys, three species of deer, and various species of horses, water buffaloes (carabaos), dogs, cattles, pigs, squirrels, and sheeps. Three unique mammals exist in the Philippines, namely: the *Tarsius*, the smallest monkey in the world found in Bohol and is believed by scientists to be an important link in the evolution of mammals; the Tamaraw, the cross between the carabao and boar, found only in Mindoro; and the mouse deer, the smallest deer on earth, found only in Palawan.

There are more than 750 species of birds in the Philippines, exceeding those of Japan, Australia, Celebes and other countries in the Pacific. Many of these birds are unusually interesting. The monkey-eating eagle is one of the biggest eagles known to man; the tiny curved-beak sunbirds, whose brilliant plumage shines with metallic gleam; the peacock pheasant, which skulks in the woods of Palawan; the parrot which can talk and sing like a human being; and, the woodthrush, the sweetest troubadour of Philippine skies. The largest bird in the Philippines is the "Tipol" (Sharpe's crane).

Both harmless and venomous snakes are found in the different islands. There are 25 varieties of venomous snakes including cobras and pythons. The lizards are of varied kinds while crocodiles exist in some regions which are sparsely populated. About 25,000 species of insects are known to exist and 2,000 kinds of fishes, sponges of variegated forms, land and sea shells, turtles, pearls, oysters, chambered nautilus and other mollusks abound in the Philippine seas.

The Philippines surpasses other Oriental countries in the propagation of flowering plants and ferns for having a variety of 10,000 species, and a tremendous collection of orchids in the whole world. Sampaguita (*Jasmin sambac*) considered as the sweetest of all the island flowers is known as the national flower of the Philippines.

## Scenic Beauties and Natural Wonders

The Philippines is a beautiful country embellished with scenic beauties and natural wonders. There are velvety beaches where the seas murmur their eternal monotonous; rippling crystalline waters where multi-colored fishes of fantastic shapes gambol in and out among emeraldine weeds and rainbow corals; cool towering highlands garlanded with gossamer-white mists of the morning and rolling vales basking redolently within the shadows of church bell-fries.

The crowning glory of nature's wonders beneath the Philippine skies is the Ifugao Rice Terraces of Northern Luzon. Built about 2,000 years ago on the massive slopes of the mountains, these terraces rise in gigantic steps toward the clouds. If placed end to end, they extend over 12,000 miles, eight times as long as the Great Wall of China and enough to embrace one-half of the earth's circumference.

Other Philippine wonders of nature are the famous Pagsanjan Falls and gorge in Laguna, the enchanting Crystal Caves in Baguio, the amazing salt spring of Salinas in Nueva Ecija; the thrilling Montalban Caves in Rizal; the lovely Sunset Beach in Cavite; the palm-fringed Atimonan Beach in Tayabas; the magnificent Maria Cristina Falls in Mindanao; the incomparable Mayon Volcano, whose perfect cone is unexcelled by the famous Fujiyama of Japan; the petite Taal Volcano in Batangas; the Chocolate Hills in Bohol; the inland Sampaloc Lakes of San Pablo in Laguna; the Hundred Islands of Lingayen Gulf in Pangasinan; famed underground river in Palawan, an amazing natural phenomenon without its equal in the world; and the Manila Bay Sunset, the memory of which lingers long in the beholder's heart like the spell of Hawaii's bewitching twilight.

#### NATIONAL PARKS IN THE PHILIPPINES

National Parks	Location	Established	Area in Hectares	Characteristics
1. Roosevelt	Bataan, Bataan	1933-65	2,618.99	Rock formation, natural hot spring, game refuge
2. Mt. Arayat	Arayat, Pampanga	1933-37	11,147.4400	Legendary mountain, waterfalls, natural waterhole, recreational
3. Ithmanan Caves	Ithmanan, Camarines Sur	1934	19.4	Natural swimming caverns and beautiful outcrops
4. Misol	Band and Dact, Camarines Norte, Lepi and Sipocot Camarines Norte	1934-40	9,426.00	Natural swimming pool, little zigzag, road and forest
5. Mt. Omalan	Bago, La Carlota, La Castellana, Murcia, San Carlos Oos. and Villahermosa, Negros Oriental	1934	24,577.00	Famous crater, waterfalls, hot springs gorges and peculiar rock formations
6. Queson	Atimonan, Padre Burgos and Pagbilao, Queson	1934-40	1,518.1530	Virgin forest, interesting wild life ideal for nature observation activities
7. Balasan Volcano	Casiguran, Barcelona, Balasan, Irosin and Juban, Sorsogon	1935	3,673.2928	Famous crater, mineral hot spring peculiar rock formation, verdant vegetation, beautiful lake
8. Callao Cave	Pedicalman, Cagayan	1935	192.00	Multi-chambered caves, deep canyon and beautiful streams, underground-river, rock formations
9. Subotom Natural Bridge	Rosay, Samar	1935	840.00	Natural stone bridge and rock formations, rivers, cathedral like caves
10. Sulfan	City of Cebu	1936	696.00	Caverns, waterhole, wonderful scenery, historical, temperate climate
11. Mt. Apo	Kidapawan, Cotabato and Sta. Cruz, Davao	1936-66	182,850.00	Medicinal hot spring, waterfalls, highest mountain in the Philippines, home of the rare monkey-eating eagles
12. Mt. Data	Atok, Bukid, Tullag, Kaganay, Kibangan, Marikayn, Impangan, Benguet, Kiangon and Bumban, Ifugao and Bukio, Bunsao, Kagan and Sabangan, Bontoc, Mt. Province	1936-40	11,024.00	Waterfalls, numerous springs, towering rocks, bottomless ravines, zigzag road, temperate climate, pine forest and wonderful natural scenery
13. Enayit Balineseayao	Baybay and Abulog, Leyte	1937	364.00	Home of bats and swifts, cave with guano deposits
14. Tongson Hot Spring	Ormos, Leyte	1937	272.00	Medicinal hot Spring, ideal summer resort
15. Maghamo Volcano	Burauen and La Pas, Leyte	1937	635.00	Multi-colored mud and rocks, beautiful lakes
16. Central Cebu	Balamban, Toledo, City of Cebu	1937	15,393.833	Place where Pres. Magaway met his death; used to be a forest park
17. Aurora Memorial Park	Bongabon, Nueva Ecija and Baler	1937	2,356.00	Camp built at 8,000 ft. above sea level is the recreation center, streams and rivers, springs, invigorating climate
18. Blak-na-Bato	San Miguel, Bulacan	1937	2,117.00	Place where pact of Blak-na-Bato was signed; geologic, panoramic and recreational

NATIONAL PARKS IN THE PHILIPPINES - Continued

19. Mt. Dajo	Patikul, Talipen, Jolo, Sulu	1938	213,3510	The only mountain in Jolo; historical caves, subterranean river and panoramic hills
20. Caramoan	Caramoan, Camarines Sur	1938	347.00	Scenery
21. Mayon Volcano	Albay, Camalig, Guintabatan Idag, Ibabog, Malilipot and Tabaco, Albay	1938	5,458.6500	Famous volcano; natural scenery; perfect cone; extinct
22. Mt. Isarog	Naga, Calabanga, Tinambac, Goa, Tigzon and Pili, Camarines Sur	1938	10,112,3478	Health resort, wonderful canyons, gorges, ravines, waterfalls, home of the Negritos (Filipine Aborigines)
23. Tired Pass	Angaki, Concepcion, Misamis Oriental and Oyo, Ilocos Sur	1938	6,320.00	Wonderful natural scenery, place where Gen. Gregorio del Pilar took his last stand during the Pil-American War
24. Payat Spring	Ilagan, Isabela	1938	819.00	Spring caves, rock formation
25. Pagsanjan Gorge	Cavinti and Lumban, Laguna	1938	152.6448	Pagsanjan Falls and other smaller waterfalls, gorges, natural swimming pools, caves and other rock formations, abundant vegetation
26. Basilan	Lamitan, Basilan City	1939	6,451.00	Waterfalls, natural swimming pools, forest
27. Mado Hot Spring	Awang, Cotabato	1939	48.00	Medicinal hot spring & health resort
28. Manlalnag Spring	Mangataren, Pangasinan	1940	91.7	Medicinal hot spring and health resort
29. Risal	Dapitan, Zamboanga	1940	10.00	Place where Dr. Jose Risal was exiled, historical relics, beautiful seascape
30. Hundred Islands	Alamogosa, Pangasinan	1940	1,944.00	Unique physical composition of islands, interesting marine life, wonderful white sandy beaches, caves, rock formations, ideal summer resort.
31. Mt. Banahaw, San Cristobal	San Pablo, Iloilo, Maguinday, Misal, Majayjay, Laguna and Lucena, Iloilo, Sariaya, Camalig and Dolores, Quezon	1941-66	31,322.8403	Twin-mountain resort, watershed natural scenery, forest.
32. Quezon Memorial	Diliman, Quezon City	1944-69	41,498.1849	Nursery, outdoor, picnic area
33. Bataan	Hermosa, Orani, Samal, Abucay, Balanga, Pilar, Bagao and Morong, Bataan	1945-66	61,253.00	Great historic park, watershed
34. Manila Bay, Beach Resort	Manila and Parafaque, Misal	1954-66	1,374.4668	Beautiful sunset, health resort
35. Tiwi Hot Spring	Tiwi, Albay	1954	47.12	Medicinal hot spring, health resort
36. Bessang Pass	Cervantes, Ilocos Sur	1954	304.00	Historical, natural scenery
37. Risal Park	Manila	1955-67	85.3599	The largest open space in the heart of Manila, ideal recreation center; site of big national events.
38. Naujan Lake	Naujan, Pola and Victoria Oriental Mindoro	1956-68	23,621.00 (plus lake proper)	Widest breeding place for marsh birds; interesting marine life
39. Maitit Hot Spring	Compostela, Davao	1958	1,381.00	Medicinal hot spring; natural scenery
40. Balabog-Putian	Dingle and San Enrique, Iloilo	1961	854.3300	"Tisok" natural holes in the ground where rain percolates, caverns, spring
41. Initao	Initao, Misamis Oriental	1963	57.00	Virgin forest, beautiful, sandy beaches; recreational
42. Northern Luzon Heroes Hill	Bo. Shiveo Santa and Marvacan Ilocos Sur	1963	1,316.00	Lagoon, waterfalls, rock formations Spanish tower, historical.
43. Pangkuman	Ramain, Linao del Sur	1965	Undetermined pending survey	Beautiful sparkling streams and rivers; invigorating climate, panoramic forest hills.
44. Lake Dapao	Pualas, Linao del Sur	1965	- do -	Unique lake surrounded by mountain ridge; one of the wonderful spots in Mindanao; recreational
45. Lake Butig	Butig, Linao del Sur	1965	- do -	Verdant vegetation; ideal swimming pools; soothing and invigorating climate
46. Sacred Mt.	Marsa City, Linao del Sur	1965	Undetermined pending survey	Panoramic mountain covered with deep forest; rich with interesting wild life; healthful climate

NATIONAL PARKS IN THE PHILIPPINES - Continued

47. Salikata	Lumba-o-bayabas, Lanao del Sur	1965	- do -	Basin of Gata River; natural swimming pool; peculiar rock formations; natural forest scenery
48. Dumortis Natural Seashore Park	Dumortis, La Union	1965	- do -	Extensive shoreline; marine life recreational
49. Pantanaraya Lake	Saguiran, Lanao del Sur	1965	- do -	Man-made lake surrounded by high land; invigorating and soothing climate; ideal recreational resort; marine life
50. Minalungao	Capen and Pagaya, Nueva Ecija	1967	2,018.00	Cathedral-like caves, exquisite rock formations, wonderful natural swimming pool
51. Taal Volcano Island	Antengas	1967	Entire volcano Island	Famous and picturesque volcano; Unique natural phenomena; has great scientific value
52. Olongapo Naval Base	Olongapo City	1968	9,0037	Undetermined pending ocular inspection
53. Paoy Lake	Ilocos Norte	1969	Undetermined 66 km. S.E.	- do -
54. Mt. Makiling	Los Baños, Laguna	1977	Manila	- do -
Total Area covered .....		222,242.7065 ha.		

✓ Number of Visitors to the other National Parks was negligible.

Sources: Parks and Wildlife Annual Report Fiscal Year 1968-69

Other places of interest in the Philippines and their location are listed below:

**Places of Interest**

1. Agusan del Norte — Nasipit Philippine Wall Board Factory (only one of its kind in the Far East)
2. Agusan del Sur — Bunawan, Agricultural and Logging Town
3. Albay — Cagsawa, half buried church in the ground result of the violent eruption of Mayon Volcano, Feb. 1, 1814.
4. Batan — Batan, Memorial Cross on Mt. Samat, scene of one of the bloodiest Battle of World War II.
5. Benguet — Camp John Hay "Playground of the Orient."
6. Bukidnon — Coffee and Pineapple Plantation Philippine Packing Corporation
7. Camarines Sur — Lake Buhi, where 2nd smallest fish in the world is also found.
8. Cebu — Magellan's cross, and Lapu-lapu's monument in Mactan Island.
9. Ilocos Sur — Old Spanish watch tower in San Esteban
10. Lanao del Sur — Historical Background and rallying point of Islam.
11. Leyte — Historic Red Boses, symbol of Liberation, Mac Arthurs' Landing Place.



12. **Manila** — Nerve-center of the country's social, religious and business activities and creation of new cultural frontiers.
13. **Marinduque** — Famous for its Moriones (ancient tradition and customs)
14. **Mt. Province** — "Sunflower Ville" site of Igorot village of cultivated flowering plants.
15. **Oriental Mindoro** — Puerto Galera, old town port used by the Dutch Warships for shelter when they besieged the City of Manila.
16. **Antipolo** — Object of annual pilgrimage and famous "Hinulugang Taktak."
17. **Sorsogon** — Masacrot Spring, Bulusan, naturally carbonated water.
18. **Surigao del Norte** — "Philippine Deep" approximately 35,400 feet depth which exceeds the height of the highest mountain in the world.
19. **Tarlac** — Capas, where the "Death March" World War II ended.



*Maria Cristina Falls, Iligan City*





*Mayon Volcano, Albay*



*Banaue Rice Terraces*





*Taal Volcano, Batangas*



*Salinas Salt Springs, Nueva Vizcaya*



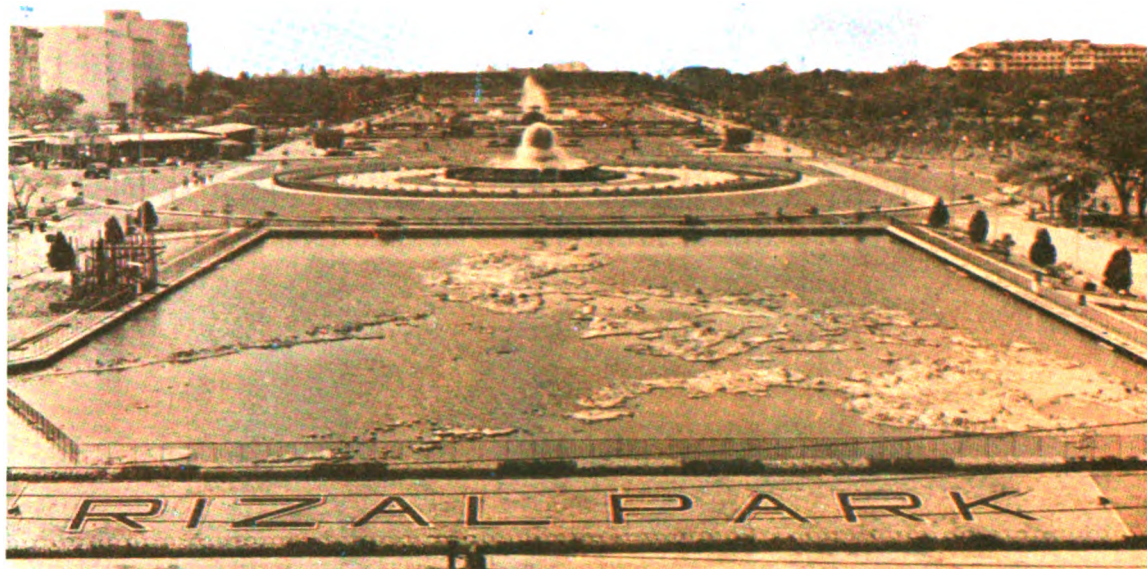


*Manila Cathedral*



*Chocolate Hills, Bohol*



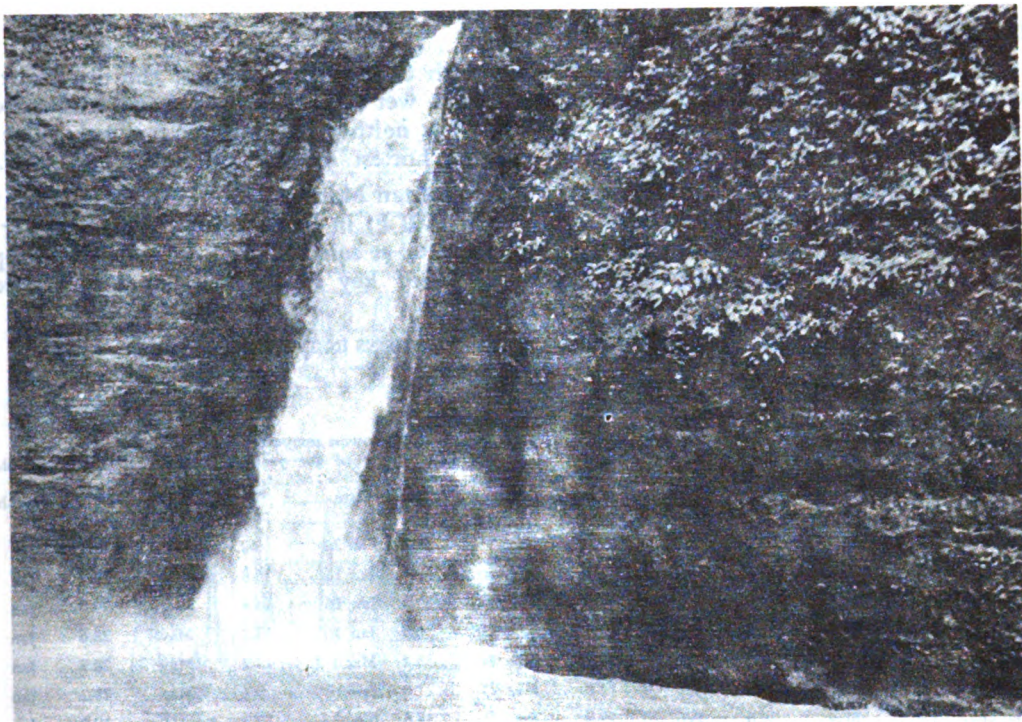


*Rizal Park, Manila*

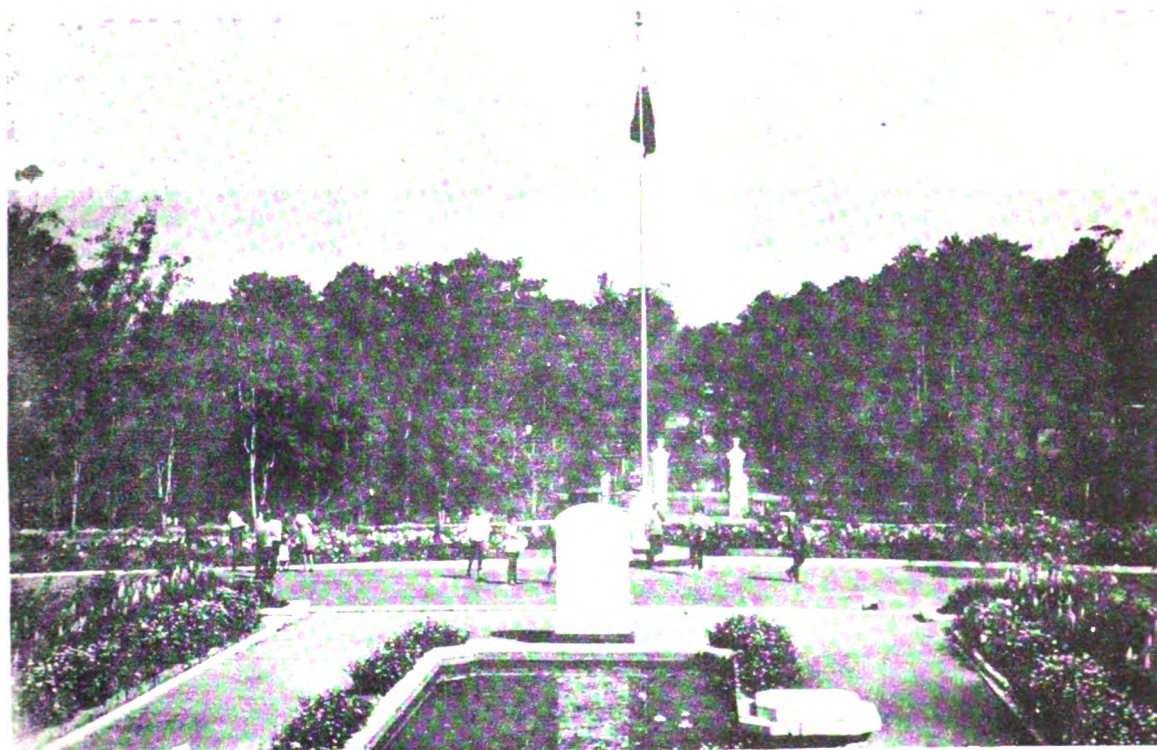


*Hundred Islands, Pangasinan*





*Pagsanjan Falls, Laguna*



*Mansion House Garden, Baguio City*

## Climate

The Philippines has a tropical climate with two distinct seasons; the dry and the wet. The dry season is from March to June, while the wet season is from June to October. The intervening period, from November to February, is neither too dry nor too wet. The coolest months are December through February, and the hottest months are April and May.

The average annual temperature in Metropolitan Manila is 27.6°C or 81.6°F; in Quezon City,<sup>6/</sup> the capital of the Philippines, 26.7°C or 80.0°F; in Baguio City,<sup>7/</sup> the summer capital resort of the country, 19.2°C or 66.5°F. Temperatures at selected stations in the Philippines is shown in Table I.9, while normal rainfall at selected key stations is shown in Figure I.1.

Table I.9 TEMPERATURE AT SELECTED STATIONS IN THE PHILIPPINES

Station	For the Year 1968								Normal *			
	Month with the highest average		Month with the lowest average		Highest temperature of the year		Lowest temperature of the year		Mean warmest month		Mean coolest month	
	Month	°C	Month	°C	Date	°C	Date	°C	Month	°C	Month	°C
1. Basco	May	32.3	Feb	18.2	July 17	33.4	Feb 24	15.2	Jun/Jul	28.3	Jan	22.3
2. Aparri	June	33.1	Feb	19.8	May 26	36.1	Jan 16	13.8	June	28.5	Jan	23.2
3. Tuguegarao	May	37.0	Feb	17.9	May 22	39.3	Jan 16	14.4	May	29.0	Jan	23.4
4. Laoag	May	33.6	Feb	17.1	Nov 20	36.0	Jan 16	13.2	May	28.6	Jan	24.7
5. Vigan	May	32.8	Feb	19.4	Nov 24	35.4	Mar 1-2	17.2	May	28.7	Jan	25.4
6. Baguio City	Mar	24.6	Feb	11.8	Mar 21	27.0	Jan 16	9.7	May	29.2	Jan	16.9
7. Dagupan City	May	34.6	Feb	19.8	Jun 21	37.6	Nov 14	17.4	Apr/May	29.0	Jan	25.8
8. Cabanatuan City	May	35.6	Dec	19.1	May 17	37.4	Jan 17	16.0	May	29.8	Jan	25.9
9. Baler	Jun	34.1	Feb	19.4	May 27	36.0	Dec 31	16.7	Jun	28.2	Jan	24.5
10. Iba	Nov	33.8	Feb/Dec	19.7	Apr 7	35.9	Feb 15	16.8	May	28.4	Jan	25.4
11. Manila	May	33.5	Feb	21.8	Jun 6-Oct 1	35.8	Jan 18	19.2	May	28.7	Jan	25.1
12. W. B. F. Center	May	36.1	Feb	19.5	May 18	37.3	Jan 10	7.0	May	29.4	Jan	25.4
13. Ambulong	Apr	34.4	Feb	20.7	May 10	36.9	Feb 14	17.7	May	28.7	Jan	25.5
14. Lucena City	June	35.0	Feb	20.5	June 3	36.7	Jan 11	17.2	May	28.7	Jan	25.3
15. Daet	June	34.2	Feb	21.3	June 12	36.3	Feb 17	17.2	Jun	27.9	Jan	25.1
16. Virac	May/June	34.0	Feb	20.3	Sept 2	36.8	Feb 17	17.7	Jun/Aug	28.1	Jan/Feb	25.9
17. Legazpi City	June	34.3	Feb	20.9	May 27	37.7	Feb 27	18.2	May	28.2	Jan	25.7
18. Roxas City	May	33.0	Feb	23.6	Sept 5	38.4	Feb 27	20.6	May	28.4	Jan	26.0

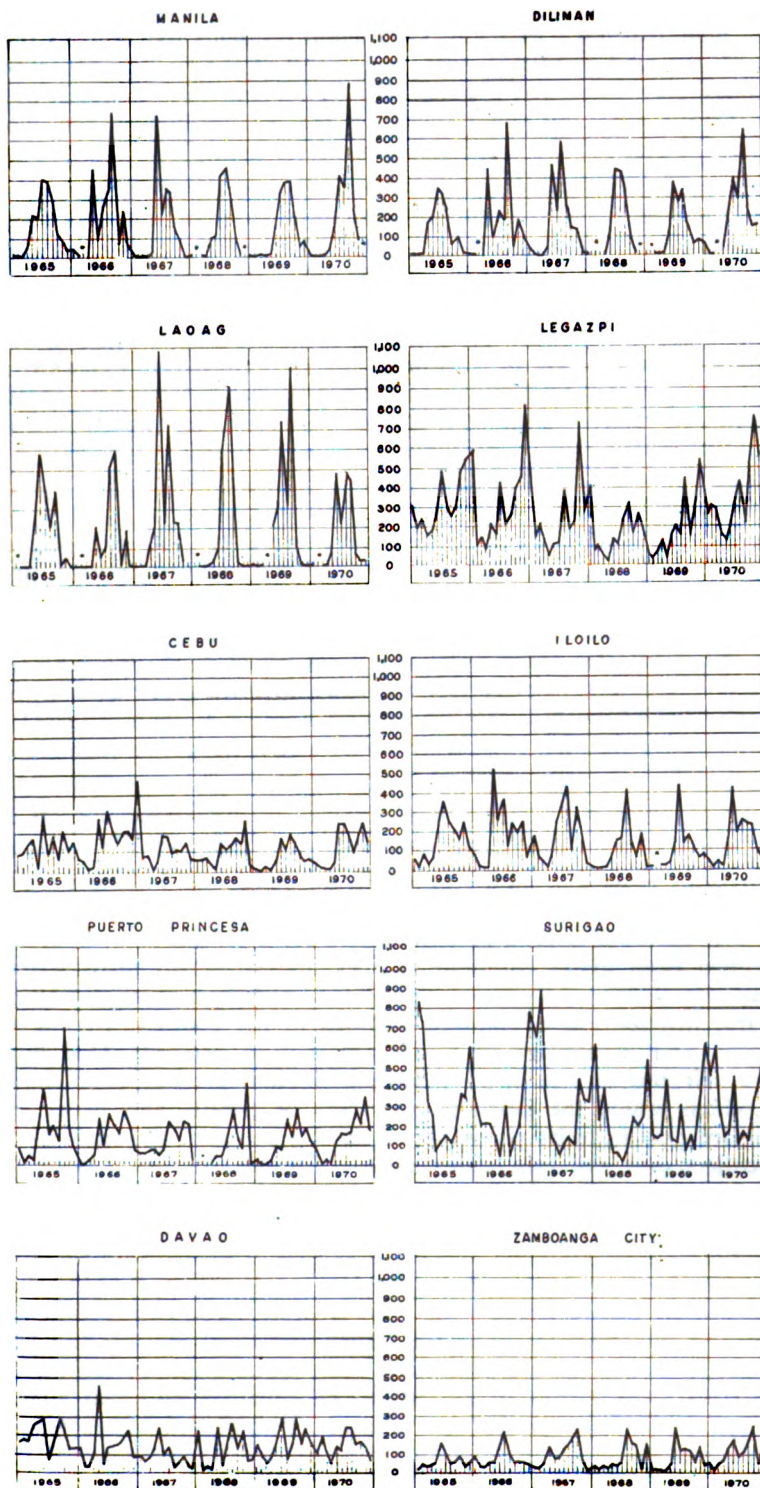
Source: Weather Bureau, Department of Commerce & Industry

6/ Based on annual average temperature from 1951 to 1970, Weather Bureau.

7/ Based on annual average temperature from 1961 to 1970, Weather Bureau.



FIGURE 1.1  
NORMAL RAINFALL IN THE PHILIPPINES  
BY KEY STATION: 1965-1970  
( IN MILLIMETERS )



MISSING DATA  
SOURCE: WEATHER BUREAU

Rainfall is heavy in all parts of the Philippines, except in Cebu and Zamboanga. In some places, it amounts to as much as 250 inches yearly. The world record of a 24-hour rainfall happened in Baguio, the mountain resort of the country on July 14-15, 1911.

Contrary to popular belief, the climate of the Philippines is not enervating nor harmful to the white man inasmuch as many Occidental residents live well in the country. As early as 1569, Legaspi, the first Spanish Governor-General of the Philippines, reported to the king: "This country is salubrious and has a good climate". And in the words of Justice Malcolm, "Broadly and truthfully speaking the climate of the Philippines is the most healthful and comfortable of any portion of the tropics inhabited by man".

The seasons in the Philippines are primarily due to the shifting north and south trade-wind belt in the Pacific. Although the Philippines is near the equator, the heat is tempered by the ocean breeze and the living conditions are greatly ameliorated thereby.

The humidity is high which is due to its proximity to the sea. It has abundant rainfall throughout the year. The winds and storms are nothing more than a tropical hurricane but destructive enough. Typhoons called "bagyo" are cyclones revolving, counterclockwise which form over the Pacific Ocean east of Ladrone Islands and move westward and then northward. Few typhoons swerve northward and northeastward. Most pass across or close to the Philippines. Storms are characterized by very low pressure, very gusty and intermediate high winds and deluges of rain.

### Meteorological Observations

Of the surface observation in 1968-69, there were 164,540 synoptic observations processed in conformity with the internationally established quality control procedure from 49 weather stations throughout the country.

Forecasting service includes service to shipping companies, aviation lines, and the general public. Two hundred fifty seven warnings were issued to shipping firms, 192 to the general public and 148 segment information for aviation during the time when the 16 tropical cyclones crossed or formed within the Philippine Area of Responsibility. Forecasting service also includes participation in the Manila Sub-continental broadcast, combined Meteorological Circuit and MC Circuit.

In Cotabato and Lanao del Sur, a newly installed agrometeorological station have complete instrument and facilities. Its operations started before July 1969.

The Department Area Duration Analysis were continued in line with International Hydrometeorological Decade. This analysis is used to determine the greatest precipitation for various size areas and duration over a certain region for a certain period. Rainfall-Intensity-Duration-Frequency had been given emphasis and its analysis is in line with the desire of the government to improve water resources development. Although there is lack of rainfall recorded data and sparse distribution of rainfall stations in the country, studies of typhoon tracks, rainfall distribution and occurrence of floods are still in progress. One hundred ninety-nine earthquakes were felt out of the 2,734 recorded, including the most damaging of all on August 2, 1968 which caused the death of hundreds of people and major property damages. Seismological Service also includes participation in the Tsunami (Tidal Wave) warning system. It continues to collect dust and rain water samples for the Philippine Atomic Energy Commission and the United States Atomic Energy Commission, Europe for Radio-actives.

### Standard Time

Giving the precise time is one of the services rendered by the Astronomical Service of the Weather Bureau. As before, radio time signals were broadcast through Weather Bureau and CAA transmitters on schedule. The total time broadcast during the fiscal year 1968-69 was 4,304 thru the Weather Bureau and Civil Aeronautic Administration. The accuracy of transmitted time ticks were within 10 seconds of coordinated universal time. Telephone time checks received and issued average 10 calls a day. Two chronometers from private concerns were rated and tested.



## CHAPTER II. — CONSTITUTION, GOVERNMENT AND FOREIGN RELATIONS

### CONSTITUTION

The Philippine Constitution is deeply rooted in the nation's past. It incorporates in its provisions, time-tested political institutions and the political philosophies of the people not undermining their experiences and the social and economic conditions of the country. Although the dominating influence was America, it bears the imprints of the Malolos Constitution, the German Constitution, the Constitution of the Republic of Spain, the Mexican Constitution and the Constitution of several South American countries, and the English unwritten constitution.

#### Historical Background

During the pre-colonial era, the lives of the early Filipinos were governed by unwritten laws consisting of customs and traditions, and written laws promulgated by the rulers some of which were codified. Two of these code of laws were the Code of Kalantiaw promulgated by King Kalantiaw of Panay in 1433 A.D., and the Maragtas Code which was published in the Maragtas, a pre-Spanish chronicle, in the early 13th century.

With the coming of the Spaniards, the government of the Philippines was regulated by laws, decrees, instructions and ordinances from Spain.

Filipino concepts of constitutional laws date to as far back as 1896 as evidenced by Emilio Jacinto's *Cartilla* (Charter) and the *Sangguniang-Hukuman* (Code of Laws and Morals of the Katipunan). This was followed by a provisional constitution for the Philippine Republic approved in Biak-na-Bato on November 1, 1897. A constitution for the island of Luzon was also promulgated on April 17, 1898 by General Francisco Makabulos along with other Filipino patriots. Likewise, upon the order of General Emilio Aguinaldo, Mariano Ponce prepared a provisional constitution for the Republic in April, 1898. Two months later, Mabini drafted a constitutional program for the country which he submitted to the revolutionary government in Cavite. On November 29, 1898, the Malolos Constitution was approved by the Malolos Congress, with Felipe Calderon as the reputed author.

During the early American rule, projects prepared by the Filipinos included a proposed constitution for the island of Negros and the National Constitution for the Philippine drafted by various Filipinos including among others, Cayetano Arellano. These projects were submitted to the Schurmann Commission in 1899.

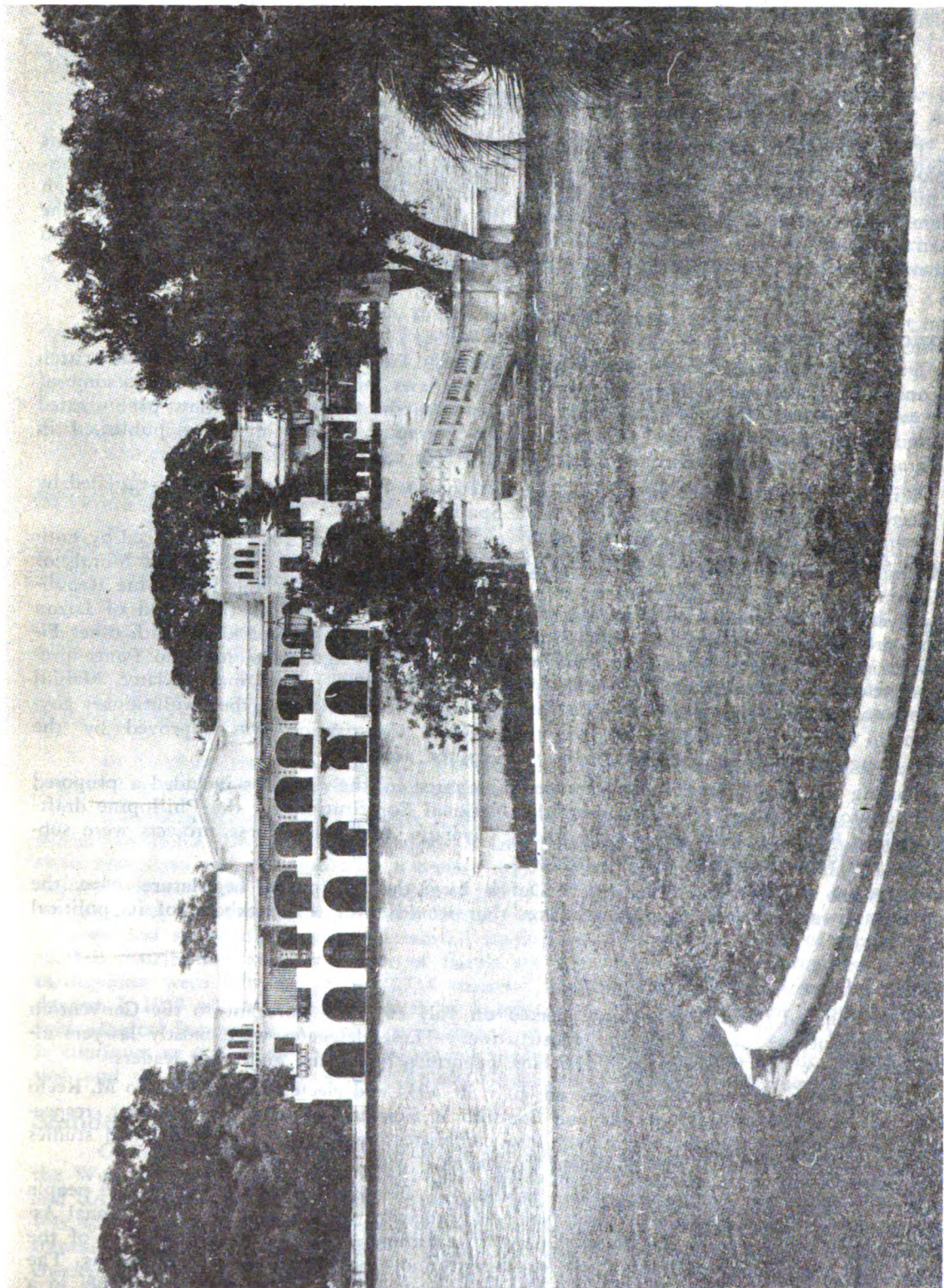
With the passage of the Tydings-McDuffie Law, the Philippine Legislature gave the people the power to frame the Constitution that would form the backbone of its political set-up.

#### Framing of the Constitution

Two hundred two delegates were elected on July 10, 1934 pursuant to the Convention Law for the purpose of drafting the constitution. These delegates were mostly lawyers although there were also businessmen, physicians, papermen and social and labor leaders.

The convention formally opened on July 30, 1934 and elected Delegate Claro M. Recto as President and Delegates Montinola and Sandiko as first and second Vice-President, respectively. The delegates organized themselves into committees in order to allow detailed studies and further investigations on the proposed provisions.

The Constitution was approved on February 8, 1935 and was submitted to the people for ratification on May 14th of the same year. However, it was amended by the National Assembly on such provisions as the establishment of a bicameral legislature, reeligibility of the President and the Vice-President and the organization of the Commission on Elections. The proposed Parity Amendment proposed by Congress was ratified by the Filipino people in a plebiscite on April 11, 1947. As amended, this constitution serves as the Constitution of the Republic of the Philippines.



*Malacañang Palace along the Pasig River*

## Basic Provisions

The Constitution of the Philippines is grounded on several basic political principles which are either directly expressed or implied. Upon these principles are based the objectives of the governmental system, the guarantees to be preserved and the limitations on the powers of the government. These principles include: 1) sovereignty of the people; 2) strong government; 3) separation of powers with its concomitant checks and balance; 4) independence of the judiciary; 5) strong executive power; 6) nationalization of natural resources and public utility; 7) high sense of public service morality; 8) national solidarity; 9) promotion of individual and social welfare; 10) social justice; 11) government of laws; and 12) majority rule.

The provisions of the Constitution are contained in 18 articles, introduced by a preamble which reads:

"The Filipino people imploring the aid of the Divine Providence, in order to establish a government that shall embody their ideals, conserve and develop the patrimony of the nation, promote the general welfare and secure to themselves and their posterity the blessings of independence under a regime of justice, liberty and democracy do ordain and promulgate this constitution."

The articles included in the constitution are: Article I — National Territory, Article II — Declaration of Principles, Article III — Bill of Rights, Article IV — Citizenship, Article V — Suffrage, Article VI — Legislative Department, Article VII — Executive Department, Article VIII — Judicial Department, Article IX — Impeachment, Article X — Commission on Elections, Article XI — General Auditing Office, Article XII — Civil Service, Article XIII — Conservation and Utilization of Natural Resources, Article XIV — General Provisions, Article XV — Amendments, Article XVI — Transitory Provisions, Article XVII — Special Provisions Effective Upon the Proclamation of the Independence of the Philippines, and Article XVIII — the Commonwealth and the Republic Ordinance Appended to the Constitution. The provisions of the Constitution with regards to these topics may be obtained in Appendix to Chapter II, Constitution of the Philippines.

## 1971 Constitutional Convention

Amendments to the constitution are necessitated by the changing social, political and economic climate in the Philippines. With the end in view of preparing a constitution that would embody Filipino aspirations to attain progress built upon Filipino energies, opportunities and resources, a Constitutional Convention was called for the purpose of revising and amending the Constitution.

Three hundred sixteen (316) delegates, representing all the congressional districts of the country were elected on November 10, 1970. These delegates formally convened on June 1, 1971. Former President Carlos P. Garcia was elected president of the convention on June 11, after which he delivered a short but challenging address expressing his appeal for mutual understanding and unity among the delegates. He further urged them to deliberate seriously and work hard to help promote and protect the highest interest of the common man and the people as a whole. This address marked his last public speech for 72 hours after his election as President of the convention, he died of heart attack at his residence in Bohol Avenue, Quezon City. Delegate Sotero Laurel was declared acting President until Delegate Diosdado Macapagal was elected for the position on June 29, 1971.



The following were the elected delegates to the Constitutional Convention enumerated by province:

**ELECTED DELEGATES TO  
THE 1971 CONSTITUTIONAL CONVENTION  
(NOVEMBER 10, 1970 ELECTION)**

**A B R A (Lone District)**

1. Arturo V. Barbero
2. Loreto L. Seares

**AGUSAN DEL NORTE (Lone District)**

1. Edelmiro A. Amante
2. Antonio R. Tupaz

**AGUSAN DEL SUR (Lone District)**

1. Vicente M. Guzman
2. Lamberto M. Mordeno

**A K L A N (Lone District)**

1. Augusto B. Legaspi
2. Godofredo P. Ramos

**A L B A Y**

(First District)

1. Jose A. Madrilejos, Jr.
2. Salvador C. Balane

**ANTIQUE (Lone District)**

1. Angel X. Salazar, Jr.
2. Arturo F. Pacificador

**BATANES (Lone District)**

1. Geronimo M. Cabal
2. Custodio A. Villalva

(Second District)

1. Domingo R. Imperial, Jr.
2. Julian J. Locsin

(Third District)

1. Elfren R. Sarte
2. Teresita Dy-Liaco Flores

**BATAAN (Lone District)**

1. Jose R. Nuguid
2. Armando L. Abad, Sr.

**BATANGAS**

(First District)

1. Felixberto Serrano
2. Antonio delas Alas

(Second District)

1. Honesto Mendoza
2. Jose P. Leviste, Jr.
3. Antonio C. Alano

(Third District)

1. Sotero H. Laurel
2. Artemio M. Lobrin
3. Oscar L. Leviste

**BENGUET (Lone District)**

1. Floro R. Bugnosen
2. Fernando Bautista

**BOHOL**

(First District)

1. Natalio R. Castillo, Jr.
2. Victor de la Serna

(Second District)

1. Teogenes Borja
2. Jose S. Zafra

(Third District)

1. Carlos P. Garcia (deceased)
2. Simplicio M. Apalisok

**BUKIDNON (Lone District)**

1. Dante P. Sarraga
2. Luis Lorenzo
3. Alfredo J. Lagamon

**BULACAN**

(First District)

1. Pablo S. Trillana III
2. Dakila F. Castro
3. Mateo A. T. Caparas

## (Second District)

1. Manuel C. Cruz
2. Justino P. Hermoso
3. Cesar B. Serapio
4. Magtanggol C. Gunigundo

**CAGAYAN**

## (First District)

1. Manuel T. Molina
2. Jose T. Antonio
3. Pedro N. Laggui

## (Second District)

1. Leoncio M. Puzon
2. Oscar L. Lazo

**CAMARINES NORTE (Lone District)**

1. Rogelio E. Panotes
2. Fernando S. Vinzons

**CAMARINES SUR**

## (First District)

1. Raul S. Roco
2. Ramon A. Diaz
3. Antonio M. Sison

## (Second District)

1. Edmundo B. Cea
2. Domingo M. Guevara
3. Eddie P. Alanis
4. Felix R. Alfeler, Jr.
5. Lilia B. De Lima

**CAMIGUIN (Lone District)**

1. Pedro P. Romualdo
2. Antonio V. Borromeo

**C A P I Z**

## (First District)

1. Enrique M. Belo
2. George H. Viterbo

## (Second District)

1. Dandy K. Tupaz
2. Pedro G. Exmundo

**CATANDUANES (Lone District)**

1. Clemente A. Abundo
2. Rafael P. Santelices

**CAVITE (Lone District)**

1. Juanito R. Remulla
2. Abraham F. Sarmiento
3. Jose P. Santillan
4. Alberto M. K. Jamir

**CEBU**

## (First District)

1. Lydia D. Rodriguez
2. Casimiro R. Madarang, Jr.

## (Second District)

1. Pedro L. Yap
2. Marcelo B. Fernan
3. Natalio B. Bacalso
4. Jesus P. Garcia

## (Third District)

1. Napoleon G. Rama
2. Antonio T. Bacaltos

## (Fourth District)

1. Oliveros E. Kintanar
2. Hilario G. Davide, Jr.

## (Fifth District)

1. Jorge M. Kintanar
2. Pedro B. Uy Calderon

## (Sixth District)

1. Andres R. Flores
2. Francis M. Zosa

## (Seventh District)

1. Antonio Y. de Pio
2. Gerardo M.S. Pepito

**COTABATO (Lone District)**

1. Midpantao L. Adil
2. Antonio E.R. Velasco
3. Sandiale A. Sambolawan
4. Duma D. Sinsuat
5. Linda U. Ampatuan

6. Anacleto D. Badoy, Jr.
7. Macario C. Camello
8. Michael O. Mastura
9. Sergio Ferraren Toca

**DAVAO DEL NORTE (Lone District)**

1. Gaudioso R. Buen
2. Camilo L. Sabio
3. Ramon A. Tirol
4. Lauro C. Arabejo

**DAVAO ORIENTAL (Lone District)**

1. Adolfo A. Angala
2. Antonio D. Olmedo

**DAVAO DEL SUR (Lone District)**

1. Ismael L. Veloso
2. Leon M. Garcia, Jr.
3. Pedro S. Castillo
4. Dominador F. Carillo
5. Samuel C. Occena
6. Jesus V. Matas

**EASTERN SAMAR (Lone District)**

1. Generoso A. Juaban
2. Jaime C. Opinion

**I F U G A O (Lone District)**

1. Gaspar R. Ponchinian
2. Raymundo Baguilat

**ILOCOS NORTE**

(First District)

1. Antonio V. Raquiza
2. Federico Ablan

(Second District)

1. Gregorio R. Puruganan
2. Emerito M. Salva

**ILOCOS SUR**

(First District)

1. Ramon S. Encarnacion
2. Melchor Padua, Jr.

(Second District)

1. Godofredo S. Reyes
2. Eduardo Ma. Guirnalda

**I L O I L O**

(First District)

1. Salvador B. Britanico
2. Lourdes S. Trono

(Second District)

1. Emilio N. dela Cruz II
2. Oscar R. Ledesma

(Third District)

1. Manuel C. Locsin
2. Amanio D. Sorongon

(Fourth District)

1. Ramon A. Gonzales
2. Licurgo P. Tirador

(Fifth District)

1. Sonia S. Aldeguez
2. Juan V. Borra

**ISABELA (Lone District)**

1. Benjamin C. Reyes
2. Heherson T. Alvarez
3. Francisco B. Albano, Jr.
4. Celso D. Gangan
5. Leocadio E. Ignacio

**KALINGA-APAYAO (Lone District)**

1. Infante S. Calaycay
2. Eubulo G. Verzola

**L A G U N A**

(First District)

1. Jose Yulo, Jr.
2. Manuel A. Concordia
3. Amado G. Garcia
4. Vicente G. Hocson

(Second District)

1. Estanislao A. Fernandez
2. Rustico F. de los Reyes, Jr.

**LANAO DEL NORTE (Lone District)**

1. Mariano Ll. Badelles
2. Francisco Abalos
3. Pangalian M. Balindong

**LANAO DEL SUR (Lone District)**

1. Hadji Ahmad Domocao Alonto
2. Mangontawar B. Guro
3. Lininding Pangandaman

**LA UNION**

(First District)

1. Victor Ortega
2. Pedro O. Valdez

(Second District)

1. Antonio M. de Guzman
2. Agaton D. Yaranon, Jr.

**LEYTE**

(First District)

1. Cirilo Roy Montejo
2. Eduardo T. Quintero

(Second District)

1. Damian V. Aldaba
2. Francisco Astilla

(Third District)

1. Ramon Ve. Salazar
2. Antero M. Bongbong

**MARINDUQUE (Lone District)**

1. Carmencita O. Reyes
2. Ricardo G. Nepomuceno, Jr.

(Fourth District)

1. Domingo Veloso
2. Flor Larrazabal-Sagadal

**MASBATE (Lone District)**

1. Andres Clemente, Jr.
2. Raul R. Estrella
3. Mateo A. Esparrago, Jr.
4. Venancio L. Yaneza

**MISAMIS OCCIDENTAL (Lone District)**

1. Timoteo C. Ruben
2. Julio H. Ozamiz
3. Elizabeth S. Chiongbian

**MISAMIS ORIENTAL (Lone District)**

1. Aquilino Pimental, Jr.
2. Rolando C. Piit
3. Felino F. Neri
4. Pablo S. Reyes

**MOUNTAIN PROVINCE (Lone District)**

1. William F. Claver
2. Felix F. Diaz, Sr.

**NEGROS OCCIDENTAL**

(First District)

1. Carlos Ledesma
2. Rodolfo A. Gamboa
3. Benito Montinola, Sr.
4. Emmanuel C. Aguilar
5. Ramon Hortinela, Jr.
6. Romeo C. Gonzaga

**NEGROS OCCIDENTAL**

(Second District)

1. Arsenio B. Yulo, Jr.
2. Carlos Hilado
3. Loreto V. Valera

(Third District)

1. Gregorio Tingson
2. Plaridel G. Villadelgado
3. Jacinto Montilla
4. Juan G. Yulo

**NEGROS ORIENTAL**

(First District)

1. Margarito B. Teves
2. Gonzalo O. Catan, Jr.
3. Vicente G. Sinco
4. Cicero D. Calderon

(Second District)

1. Emilio C. Macias II
2. Felix G. Gaudiel, Sr.

**NORTHERN SAMAR (Lone District)**

1. Emil L. Ong
2. Cesar A. Sevilla

**NUEVA ECIJA****(First District)**

1. Romeo T. Capulong
2. Ernesto R. Rondon
3. Rebeck Espiritu

**(Second District)**

1. Juan R. Liwag
2. Emmanuel T. Santos
3. Sedfrey Ordonez
4. Raymundo A. Padiernos

**NUEVA VIZCAYA (Lone District)**

1. Jose D. Calderon
2. Demetrio A. Quirino, Jr.

**OCCIDENTAL MINDORO (Lone District)**

1. Ricardo V. Quintos
2. Honofre Restor

**ORIENTAL MINDORO (Lone District)**

1. Jose A. Leido
2. Juan A. Lucas Luna
3. Amado S. Tolentino, Jr.

**PALAWAN (Lone District)**

1. Alfredo E. Abueg, Jr.
2. Jose N. Nollado

**PAMPANGA****(First District)**

1. Diosdado P. Macapagal
2. Amando M. Yuson
3. Jose E. Suares
4. Fidel Zosimo U. Canilao

**(Second District)**

1. Amelito R. Mutuc
2. Ricardo M. Sagmit, Jr.
3. Bren Z. Guiao

**PANGASINAN****(First District)**

1. Mauro O. Baradi
2. Jose F.S. Bengson, Jr.

**(Second District)**

1. Luis C. Catubig
2. Numeriano C. Tanopo, Jr.

**(Third District)**

1. Ricardo B. Primicias
2. Emiliano L. Abalos

**(Fourth District)**

1. Reynaldo A. Villar
2. Jose M. Aruego

**(Fifth District)**

1. Felix M. Mamenta, Jr.
2. Jesus M. Reyes

**QUEZON****(First District)**

1. Rodolfo D. Robles
2. Edgardo J. Angara
3. Vincent L. Recto
4. Leandro P. Garcia

**(Second District)**

1. Gil Jun G. Puyat, Jr.
2. Cesar A. Caliwara
3. Oscar P. Santos
4. Benjamin M. Campomanes

**R I Z A L****(First District)**

1. Raul S. Manglapus
2. Jesus G. Barrera
3. Enrique Voltaire R. Garcia
4. Salvador Z. Araneta
5. Jose S. Conception, Jr.
6. Jose Mari U. Velez
7. Jose Y. Feria
8. Augusto T. Kalaw
9. Jose Ma. V. Paredes
10. Miguel P. Cuaderno, Sr.
11. Teopisto T. Guingona, Jr.
12. Leonardo T. Siguion Reyna
13. Ceferino P. Padua
14. Alejandro A. Lichauco
15. Tomas C. Benitez (deceased)
16. Mary Jose J. Espeleta
17. Augusto Caesar A. Espiritu
18. Augusto L. Syjuco, Jr.



**(Second District)**

1. Pacifico A. Ortiz
2. Gilberto M. Duavit
3. Emilio N. dela Paz, Jr.
4. Francisco S. Sumulong
5. Augusto S. Sanchez

**ROMBLON (Lone District)**

1. Manuel F. Martinez
2. Ernesto G. Ang

**S A M A R (Lone District)**

1. Decoroso R. Rosales
2. Romualdo R. Mendiola
3. Ramon V. Mijares
4. Valeriano C. Yancha

**SORSOGON****(First District)**

1. Pacifico F. Lim
2. Bonifacio H. Gillego

**(Second District)**

1. Jose L. Lachica
2. Celso P. Tabuena

**SOUTH COTABATO (Lone District)**

1. Rodolfo A. Ortiz
2. Tomas T. Falgui
3. Fidel P. Purisima
4. Arturo P. Pingoy

**SOUTHERN LEYTE (Lone District)**

1. Gabriel O. Yniguez
2. Federico U. de la Plana

**S U L U (Lone District)**

1. Jal M. Anni
2. Tating A. Sangkula
3. Benjamin R. Abubakan

**SURIGAO DEL NORTE (Lone District)**

1. Constantino H. Navarro, Jr.
2. Fanny C. Garcia

**SURIGAO DEL SUR (Lone District)**

1. Vicente L. Pimentel
2. Eriberto B. Misa

**TARLAC****(First District)**

1. Mercedes Cojuangco Teodoro
2. Homobono C. Sawit

**(Second District)**

1. Jose Y. Feliciano
2. Ramon M. Nisce

**ZAMBALES (Lone District)**

1. Richard J. Gordon
2. Enrique J. Corpuz
3. Luis D. Santos

**ZAMBOANGA DEL NORTE (Lone District)**

1. Augusto G. Saguin
2. Adolfo S. Azcuna
3. Ernesto S. Amatong

**ZAMBOANGA DEL SUR (Lone District)**

1. Vincenzo A. Sagun
2. Roseller T. Lim
3. Wilfredo G. Cainglet
4. Antonio M. Ceniza
5. Caria Clara Lorenzo-Lobregan
6. Teodoro C. Araneta
7. Pedro M. Rodriguez, Jr.
8. Ramon V. Blanca
9. Benjamin A. Rodriguez

**M A N I L A****(First District)**

1. Reynaldo T. Fajardo
2. Salvador L. Marino
3. Fidel A. Santiago

**(Second District)**

1. Roberto S. Oca
2. Juan T. David

**(Third District)**

1. Gerardo S. Espina
2. Eduardo M. Sison
3. Feliciano Jover Ledesma

**(Fourth District)**

1. Carlos J. Valdes
2. Jose P. Marcelo
3. Antonio R. Araneta, Jr.

A total of fifty nine committees, eight of which are administrative in nature and the rest organic has been created with the task of preparing drafts of the different parts of the constitution. The committees created included: the Committee on Finance and Property, Committee on Personnel, Committee on Procurement and Printing, Committee on Election Protest and Credential, Committee on Legal Affairs, Committee on Privileges, Committee on Audit, Committee on External Affairs, Committee on Declaration of Principles, Committee on Legislative Power, Committee on Civil Service, Committee on Local Government, Committee on Education, Committee on National Integration, Committee on National Language, Committee on Arts and Culture, Committee on Human Resources and Manpower Development, Committee on Sciences and Technology, Committee On Civil and Political Rights, Committee on Social and Economic Rights, Committee on Duties and Obligations of Citizens and Ethics of Public Officials, Committee on Suffrage and Electoral Reforms, Committee on Political Parties, Committee on Social Welfare, Committee on Social Justice, Committee on Land Reform, Committee on Labor, Committee on Government Auditing, Committee on Preamble and National Identity, Committee on Citizenship, Committee on Judicial Power, Committee on Administrative and Specialized Courts, Committee on Taxation and Debt Management, Committee on Monetary and Fiscal Policies, Committee on Trade, Tariff and Commerce, Committee on Foreign Investment, Loans and Technical Assistance, Committee on General Provisions, Committee on Amendments to the Constitution, Committee on Franchises and Public Utility, Committee on National Territory, Committee on Executive Power, Committee on Agriculture and Natural Resources, Committee on Constitutional Bodies, Committee on Law Enforcement and Peace and Order, Committee on National Security, Committee on Foreign Relations, Committee on Mass Media, Committee on Health, Committee on Transitory Provisions, Committee on Church and State, Committee on Style, Committee on Public Works, Committee on Budget and Appropriations, Committee on Rural Community Development and Problems, Committee on Plebiscite and Ratification, Committee on Youth, Committee on Economic Planning and Implementations, Committee on Industrialization, and Committee on Housing and Urban Development.

These committees are expected to make thorough investigations and analyses of their respective subject matters as well as make recommendations and propositions to the body.

## THE PHILIPPINE GOVERNMENT

### Historical Background

Long before the coming of the Spaniards the Filipinos were organized into barangays (a group of thirty to one hundred families). This was the earliest unit of government under the rule of a "datu" who acquired his position either through bravery, wealth or inheritance. For purposes of trade and defense, several barangays were grouped into "Barangay Confederations".

With the coming of the Spaniards, the Filipinos were governed by a Governor-General who is directly responsible to the Spanish Crown. The employment of the 'encomienda' system and forced labor and the imposition of high taxes coupled with the abuses of the Spaniards drove the Filipinos to ardently work for their independence. Several attempts to overthrow the Spaniards and gain freedom made during whole duration of their foreign domination were in vain. It was the revolution of 1896-98 which finally put an end to Spanish rule in the Philippines, giving rise to the First Philippine Republic, an oriental democracy founded and maintained by the Filipinos. Considered as the Most Democratic Republic in Asia or the First Christian Republic in the Orient, this was inaugurated at Malolos, Bulacan on January 23, 1899.

Prior to its inauguration, a Revolutionary Congress, popularly known as the Malolos Congress, met in an inaugural session at Barasoain Church, Malolos, Bulacan on September 15, 1898. The Congress took up the problems of the new nation. It solemnly ratified the independence of the Philippines on September 29 of the same year. Its greatest achievement was the framing of the Constitution of the Philippine Republic, otherwise known as the Malolos

Constitution. However, its attempts at taking possible steps leading to civil government and constitutional rule and eventually developing a strong and stable democracy were futile, for it collapsed before America's might in 1901.

It was during this year, occasioned by the Capture of Manila, that the Americans and the Filipinos who fought hand in hand against Spain, parted ways. This event led to the War for Philippine Independence, more popularly known as the Filipino-American War, where the Filipino patriots gallantly resisted their much stronger foe. In the end, overwhelmed by superior forces, they laid down their arms and were forced to accept American sovereignty.

The American occupation lasted for more than three decades. In 1934, the approval of the Tydings-McDuffie Act, provided for the drafting of the Constitution and a ten-year period under a Commonwealth government.

The first election under the Constitution was held on September 17, 1935, with Senate President Manuel L. Quezon elected President of the Philippines and Senator Sergio Osmena Sr., as Vice-President.

On November 15, 1935, the Commonwealth Government was formally inaugurated. It was caught amidst the terrible conflicts of the Second World War, the life and death struggle for supremacy between democracy and totalitarianism. Immediately after the attack of Pearl Harbor, the Filipino people were drawn into the war owing to their love for freedom and democracy and their loyalty to the United States. Throughout the three dark years of enemy occupation, they patiently endured all sufferings and Japanese atrocities, they kept their faith in democracy, and awaited the dawn of liberation.

The Republic of the Philippines was born out of the ashes of the Second World War. It emerged with General Manuel A. Roxas, one of the Filipino heroes of the war, as President. The Republic, inaugurated on July 4, 1946, was the first democratic Republic to rise after the global conflict.

The difficulty of organizing and developing the country from the ruins of war beset the government. There arose the problem of building the necessary roads, bridges, buildings, houses and other infrastructure facilities out of the ravages of war. This was further complicated by the need to reorganize the country's social, economic and political structures. Through foreign aid, reparations and loans and proper direction from the government, the country managed to rise from a war devastated economy.

In the 1949 elections, Elpidio Quirino was elected president. He was succeeded by Ramon Magsaysay in 1953 who was not able to finish his term due to his death. Carlos Garcia assumed the presidential post, being the incumbent vice-president. He served for another four years with his election in 1957 and was succeeded by Diosdado Macapagal in 1961. In 1965, Ferdinand Marcos assumed the presidency and was reelected in the 1969 elections. He is the first president of the Philippine Republic to gain the honor of serving for two terms.

The last twenty five years of the Republic's life saw gradual development in the country's economic, social and political structures. The country's relations with other countries became more established and defined. Its stand over international issues became more or less firm, and it has continued to establish mutual trade and foreign relations with other countries of the world. The political system of the government is now characterized by clear-cut objectives and sound principles. The social relations of the people are now established, based on the concept of respect for each individual as a human being, rational and having free will.

The country is now experiencing a development in its economic structure as evidenced by the growing concern for industrialization and the improvement of the agricultural system. Proper incentives given by the government has impelled the private sector to engage in industries thereby contributing a lot to the gross national product of the country. The developments in all aspects of the Filipino life have been properly initiated and regulated by the government through the cooperation and assistance of the Filipinos themselves, and aid received by the country from foreign nations.

## National Government

For an efficient organization and performance of the Philippine governmental system, the national government is divided into the executive, legislative and judicial branches, each having specific and well-defined functions. These branches are separate and distinct from each other. The authority given to each is deliberately limited to prevent one from becoming dominant through the acquisition of too much power.

The executive branch operates the government and administers the laws, the legislative branch formulates and passes the laws while the judiciary interprets the laws and settles disputes.

**EXECUTIVE BRANCH.** The Constitution vests the executive power in a President of the Philippines elected by a direct vote of the people. In the event of his removal from office or of his death, resignation or inability to discharge the powers and duties of his office, the Vice-President will assume the vacant post.

The President and the Vice-President should be natural-born citizens of the Philippines, qualified voters, forty years of age or over and they must have been residents of the Philippines for at least ten years immediately preceding election. Both hold office for a term of four years although the President is limited to serve for two terms only.

**Powers of the President.** In the exercise of his constitutional powers, the President is responsible to no one but to the people and his conscience. His powers include those which are purely administrative in nature, the power of appointment and removal, military power, diplomatic power, pardoning power, budgetary power and legislative power.

His administrative power gives him control of all executive departments, bureaus or offices and supervision over all local governments as may be provided by law. He has the power to appoint: 1) heads of executive departments and bureaus; 2) officers of the army from the rank of colonel; 3) officers of the navy and air forces from the rank of captain or commander; 4) ambassadors, other public ministers and consuls; 5) members of the Supreme Court and all judges of inferior courts; 6) members of the Commission on Elections; 7) Auditor-General; 8) other officers of the government whose appointments are not otherwise provided for in the Constitution; 9) officers whom he may be authorized by law to appoint. On the other hand, he also exercises the power of removal over the appointments he made with the consent of the Commission on Appointments and over the purely executive officers. The Constitution designates him as the Commander-in-Chief of all the Armed Forces. As such he may call the armed forces to prevent or suppress lawless violence, invasion, insurrection or rebellion and when the public safety so requires, he may suspend the privileges of the writ of habeas corpus or place the Philippines or any part thereof under martial law. With regards to his diplomatic power, he is responsible for establishing foreign relations and negotiating treaties, pacts and agreements which become binding upon approval by two-thirds vote of all Senate members. The President shall also have the power to grant reprieves, commutations and pardons and remit fines and forfeitures after conviction for all offenses except in impeachment cases. His budgetary power consists of submitting to Congress a budget of receipts and expenditures expected for the following year after he has conferred with the Budget Commissioner. He also participates directly or indirectly in the process of law-making through his power to control the sessions of Congress, deliver messages, certify to the necessity of immediate enactment of measures, to veto measures and to direct or influence the legislative program of his political party.

**Executive Department.** Enforcement and administration of the laws, have been facilitated by the creation of different Executive Departments by Congress. At present there are twelve executive departments namely: the Department of Foreign Affairs, Department of Finance, Department of Agriculture and Natural Resources, Department of National Defense, Department of Education, Department of Labor, Department of Health, Department of Commerce and Industry, Department of General Services, Department of Justice, Department of Public Works and Communications, and Department of Social Welfare.

The heads of these departments, chosen by the President and approved by the Commission on Appointments, form a council called the "President's Cabinet". Their term of office depends largely on the whims and caprices of the President. They are convened into meetings whenever he wishes or he consults them individually on matters relating to their particular spheres of action.

**LEGISLATIVE BRANCH.** Upon the Congress of the Philippines is vested the legislative power of the Philippine government. Being bicameral in nature, it is made up of the Senate and the House of Representatives or the Upper House and Lower House, respectively.

The Senate has a total membership of twenty-four, one-third of which is renewed biennially. Its members are chosen at large by qualified electors of the country as provided by law to serve for a term of six years. On the other hand, the House Representatives has 120 members who are apportioned among the several provinces according to the number of their respective inhabitants. They are elected by the qualified electors from geographical districts into which the country is divided for the election of representatives.

While the members of both houses are natural born citizens and qualified electors, the Senators should at least be 35 years of age and residents of the Philippines for not less than two years immediately prior to their election and the representatives should be at least 25 years of age and residents of the province in which they are chosen for not less than a year immediately prior to their election.

Members of both houses elect officers to direct the activities of the legislative body. The Senate elects a President, a President Protempore and Sergeant-at-Arms, while the House of Representatives elects a Speaker, a Speaker Protempore, a Secretary and Sergeant-at-Arms. The functions of these officers depend upon the rules of the Senate or House adopted at a given session.

Congress meets in a regular session once every year which begins on the fourth Monday of January and lasts for 100 days exclusive of Sundays. They may be called into a special session by the President whenever necessary to settle matters requiring immediate concern.

**Functions of Congress.** Aside from considering legislative measures and engaging in legislative activities, Congress exercises other functions which may be classified as constituent, electoral, judicial, educational, policy-forming and administrative and supervisory. Its constituent functions lie in its power to initiate amendments or propose amendments to the Constitution or call a convention for that purpose. It performs electoral functions through each Electoral Tribunal in each house. Its judicial functions consist in judging election returns, and the qualifications of its members, in presiding over impeachment proceedings and in punishing members for disorderly behavior of expelling them with the consent of two-thirds of all its members; in punishing outsiders for contempt and disturbance of proceedings, interference with its procedures or performance of functions and refusal to answer legitimate questions or bring documents. Congress incidentally performs an educational function through the speeches made in session halls, reports of activities in newspapers and other publications and in their own journals which are all circulated in public. These materials constitute a veritable wealth of information.

Through its power to determine, the sources of revenue as well as the appropriation of money, Congress effectively helps in moulding policies particularly those with respect to the relation of labor and capital, education, foreign capital, dissident elements, industrial problems, national defense, foreign policies, and the priority of major government activities. It is also through its power of appropriations that it determines to a large extent the organization of administrative agencies. It has the power to require reports from them as prescribed in corresponding statutes, thus keeping it informed of their operations or activities, thereby being in a position to impose checks where checks should be made.

**Committees.** Factual foundation of the work of the legislative body is provided for by the different committees created for the said purpose. These committees are generally divided into standing committees, select committees and the committees of the whole House.

Standing committees are those created definitely in the rules of each House and are organized in the case of the House of Representatives at the beginning of each Congress continuing until the end of the Congress, unless the rules are changed earlier to affect them; and in the case of the Senate, at the organization session every two years. They study and investigate proposed measures after the first reading. If a study is to be made on a subject which is not within the scope of the subject matter assigned to the standing committees, select committees are created from time to time by resolution of each House. This resolution determines the composition of the committee and provide for its existence and termination. For the consideration of revenue or appropriation measures, a committee of the whole house is organized. It may be presided by the Speaker or the Senate President.

**JUDICIARY BRANCH.** In drafting a law, Congress can accurately express the overall intent of the legislation, but frequently the application of the statute to a particular situation is not immediately clear. Consequently, as the law is enforced, it has to be interpreted. The third branch of the National Government, the Judiciary has the duty of explaining and interpreting the national laws through the Courts. The interpretative duties of the Courts extend to treaties and agreements with foreign powers and even the highest law of the land, the Constitution itself.

The Courts also act as a check on both the Legislative and Executive branches of the National Government in deciding whether one or both has tried to exercise more authority than what has been explicitly provided for in the Constitution. Furthermore, it sees to it that equal justice is afforded to all persons accused of breaking the law.

**General Features of the Judicial System.** Certain features of the Philippine judicial system distinguish it from other legal systems of the world. Among these are: a) a single hierarchy of courts which hear both civil and criminal cases; b) uniformity of the law applied by all courts throughout the country; c) absence of trial by jury; d) a single system of regular courts trying cases against private individuals and public officials; e) observance of the doctrine of "Stare decisis"; f) appointive judges who serve until they reach the age of seventy; g) a Supreme Court created by the Constitution with the power to declare laws and executive acts as unconstitutional; and h) inferior courts created by law.

In the United States one state law may differ from another on such important matters as marriage and divorce, while in the Philippines a single and more simplified legal system is observed in every part of the archipelago. This difference may be partly explained by the fact that while the United States has adopted a federal system of government giving some kind of "sovereignty" to the member states, the Philippines has a unitary system with the local governments deriving their existence and power from the central government.

Furthermore, unlike the British system which recognizes a double hierarchy of courts based upon a vertical division between criminal and civil cases, the Philippines has only one set of courts trying both kinds of cases.

**Administration of Justice.** Courts are the greatest exponent in the administration of justice. By positive law, by usage or by convention, the administration of justice is their main duty and the reason for their existence.

**The Supreme Court.** The Supreme Court of the Republic of the Philippines, the highest court of the Nation, is the only court set up by the Constitution itself and as such it can not be abolished without amending the Constitution. Its decisions are final and it is the only court to which an appeal can be made.

The Supreme Court consists of a Chief Justice and ten Associate Justices. Its membership is not limited to natural-born citizens. However, no person may be appointed a member of the Supreme Court unless he has been a citizen of the Philippines for five years, at least forty years of age and he must have been a judge of a court of record or he must have engaged in the practice of law in the Philippines for at least ten years. They are appointed by the President with the consent of the Commission on Appointments, and they hold office during good behavior until they reach the age of seventy years, or become incapacitated to discharge the duties of their office. They can be removed only by impeachment for conviction of culpable violation of the Constitution, treason, bribery or other high crimes.

**Chief Justice and Justices of the Supreme Court, as of October 1971.  
(In order of seniority)**

Name	Assumption of Office
Hon. Roberto Concepcion, Chief Justice	June 4, 1966
Hon. Justice Jose B. L. Reyes	June 30, 1954
Hon. Justice Arsenio P. Dizon	Aug. 14, 1960
Hon. Justice Querube C. Makalintal	May 23, 1962
Hon. Justice Calixto O. Zaldivar	Sept. 12, 1964
Hon. Justice Fred Ruiz Castro	June 30, 1966
Hon. Justice Enrique M. Fernando	June 30, 1967
Hon. Justice Claudio Teehankee	Dec. 17, 1968
Hon. Justice Antonio P. Barredo	Dec. 17, 1968
Hon. Justice Julio Villamor	Jan. 24, 1970
Hon. Justice Felix V. Makasiar	Aug. 3, 1970

The Chief Justice acts as a presiding officer of the Supreme Court, and all the justices may sit either "en banc" or in division as may be provided by law. All decisions of the court are reached by a majority vote of the justices who have taken part in the hearings. The opinions, ideas and principles reached by the Supreme Court form the basis of the legal profession thus exerting a great influence on jurisprudence.

The jurisdiction of the Supreme Court is defined by the Constitution and the law. Its original jurisdiction over cases affecting ambassadors, other public ministers and consuls and its appellate jurisdiction to review, revise, reverse, modify or affirm on appeal, fiscal judgments and decrees of inferior courts as in: 1) all cases in which the constitutionality or validity of any treaty, law, ordinance or executive order or regulation is in question; 2) all cases involving the legality of any tax, impost, assessment or toll, or any penalty imposed in relation thereto; 3) all cases in which the jurisdiction of any trial court is in issue; 4) all criminal cases in which the penalty imposed is death or life imprisonment; and 5) all cases in which an error or question of law is involved, may not be deprived from it.

By statutory provisions, the Supreme Court may act on appeals from a decision of the Court of Tax Appeals; from an award, order or decision of the Public Service Commission or the Securities and Exchange Commission; from an order or decision of the Auditor General; from an order or decision of the Director of Patents and by constitutional provisions from decisions, orders and rulings of the Commission on Elections.

The Supreme Court is also vested the rule-making power by the Constitution. This consists of the power to promulgate rules concerning pleading, practice and procedure and the admission to the practice of law. These rules shall be uniform for all courts of the same grade and it shall not diminish, increase or modify substantive rights.

*Courts of Appeals.* Next to the Supreme Court in the judicial hierarchy is the Court of Appeals, which is higher than the Courts of First Instance, the Court of Agrarian Relations and the Court of Industrial Relations. It was created by a law passed by the National Assembly under the original constitution.

The Court of Appeals is composed of a presiding justice and seventeen associate justices. It may sit either in banc or in six divisions of three justices each. Eleven justices constitute a quorum for its session in banc and three for the sessions of a division.

It has exclusive appellate jurisdiction over all cases, actions and proceedings — not granted to the Supreme Court — properly brought to it from Courts of First Instance. It has original jurisdiction to issue Writs of mandamus, prohibition, injunction, certiorari, habeas corpus and all other auxiliary writs and process in aid of its appellate jurisdiction. In such cases, its decisions shall be final, consequently not appealable to the Supreme Court. However,

in cases where the question of law is involved, the Supreme Court in its discretion may require that the case be certified to it for review and determination.

*Courts of First Instance.* Higher than the municipal and city court in the judicial pyramid are the courts of first instance. At least one of this courts is found in each of the sixteen judicial districts into which the Philippines is divided. These courts are presided by district judges who have engaged in the practice of law within the country for at least ten years.

The courts of first instance try and decide cases appealed from the municipal and city courts as well as civil and criminal cases which are considered more serious in nature than those handled by municipal and city courts. These courts are not only courts of record but also trial courts.

*Municipal Courts.* Municipal courts (formerly known as justice of the peace courts) are at the base of the judicial pyramid. They are scattered throughout the Philippines, generally one in every town, although in some of the undeveloped and thinly populated towns, two, three or four towns are grouped as a circuit with one municipal court. They are the ones close to the people and in many cases the only courts of justice known to them. They are presided by a single judge known as a municipal judge who is under the supervision of the district judge and of the Secretary of the Department of Justice.

These courts try minor civil and criminal cases. Not being a court of record, proceedings in these cases are not recorded.

*City Courts.* City courts correspond to the municipal courts of the towns in their position in the judicial hierarchy.

## Local Government

The Philippines is politically subdivided into provinces, cities, municipalities and barrios. Each political subdivision is independently run by a set of elective officials directly responsible to the national government.

**PROVINCIAL GOVERNMENT.** The province is the largest political subdivision in the Philippines. It is created by law as a public corporation endowed with certain powers to be exercised by and through their respective provincial governments. As of 1970, there were 66 provinces in the Philippines, 29 in Luzon, 19 in Visayas and 18 in Mindanao. The provinces listed by geographical region are as follows:

### LUZON

Abra  
Albay  
Bataan  
Batanes  
Batangas  
Benguet  
Bulacan  
Cagayan  
Camarines Norte  
Camarines Sur  
Catanduanes  
Cavite  
Ifugao  
Ilocos Norte  
Ilocos Sur  
Isabela  
Kalinga-Apayao  
La Union  
Laguna  
Mt. Province  
Nueva Ecija  
Nueva Vizcaya  
Pampanga  
Pangasinan  
Quezon  
Rizal  
Sorsogon  
Tarlac  
Zambales

### VISAYAS

Aklan  
Antique  
Bohol  
Capiz  
Cebu  
Eastern Samar  
Iloilo  
Leyte  
Marinduque  
Masbate  
Negros Occidental  
Negros Oriental  
Northern Samar  
Occidental Mindoro  
Oriental Mindoro  
Palawan  
Romblon  
Southern Leyte  
Western Samar

### MINDANAO

Agusan del Norte  
Agusan del Sur  
Bukidnon  
Camiguin  
Cotabato  
Cotabato  
Davao del Norte  
Davao Oriental  
Davao del Sur  
Lanao del Norte  
Lanao del Sur  
Misamis Occidental  
Misamis Oriental  
South Cotabato  
Sulu  
Surigao del Norte  
Surigao del Sur  
Zamboanga del Norte  
Zamboanga del Sur



Each of these provinces is a political corporate body possessing certain powers to be exercised in conformity with the laws among which are: (1) to have continuous succession in its corporate name; (2) to sue and be sued; (3) to have and use a corporate seal; (4) to acquire and dispose of personal property; (5) to make contracts for labor and materials needed in the construction of duly authorized public works; and (6) to exercise such other rights and incur such other obligations as are expressly authorized by law.

*Chief Officials.* The chief officials of the provincial government are the governor, vice-governor, provincial treasurer, and members of the provincial board. Except for the provincial treasurer who is appointed by the President with the consent of the Commission on Appointments, these officials are elected by a direct vote of the people.

To be eligible for election to a provincial office, a person must at the time of election be: (a) a qualified voter of the province; (b) a bonafide resident therein for at least one year prior to election and (c) not less than twenty-five years of age. In the case of provincial board members (other than the governor and the vice-governor), the law requires that they must be at least twenty-three years old. It is to be noted that only Filipino citizens may hold a provincial office, whether elective or appointive.

*Provincial Governor* — The provincial governor is the chief executive officer of the provincial government. He is consulted by the national officials on matters concerning his province. He occupies a position which carries both political and social distinctions.

It is his duty to exercise general supervision over the government of his province in conformity with the law. He should further see to it that these laws are faithfully executed by all the officers therein, updating the latter's knowledge of all laws and orders issued and/or approved by the national officials. To enforce these laws and to promote order in his province he shall have control of the military authority in the province. He may call the Philippine Constabulary to suppress disorder, riot, lawless violence or rebellion or sedition, conspiracy or to apprehend violators of the law. When the violence is beyond the power of the local police and the Philippine Constabulary, he may call upon the President to settle the case.

*Provincial Board* — The provincial board is composed of the provincial governor, who is the presiding officer, the vice-governor and three or two other members elected at large by the qualified electors of the province depending on the class of the province.

Provinces are classified into seven classes according to their average total revenue per annum for the preceding five consecutive years. Accordingly, they are classified as follows:

CLASS	AVERAGE TOTAL REVENUE PER ANNUM
First	P1,500,000 or more
Second	P1,000,000 or more but less than P1,500,000
Third	P700,000 or more but less than P1,000,000
Fourth	P500,000 or more but less than P700,000
Fifth	P300,000 or more but less than P500,000
Sixth	P150,000 or more but less than P300,000
Seventh	Less than P150,000

The first three classes have three other members, in addition to the governor and vice-governor, to compose the provincial board; while the last four classes have only two other members.

The provincial board performs administrative functions which include providing a seal for the province, offices for the provincial and court officials, courthouse, jailhouse and equipment therein including the needs of schools in the province. It is responsible for appropriating money for the general welfare of the province and its inhabitants. It also directs the bringing or defense of civil suits in behalf of the provincial government. Furthermore, it orders public works projects and improvements in accordance with the law.

*Other provincial officials* — The other provincial officials include the provincial auditor, who represents the Auditor General in the province; the provincial fiscal, who acts as the chief legal adviser of the province; the district health officer, who is the representative of the Bureau of Health in the province; the district engineer, who represents the Bureau of Public Highways in the province; the superintendent of schools, who represents the Bureau of Public Schools in the province; the register of deeds, who records all instruments or deeds affecting lands situated in the province; and the provincial commander who represents the chief of the constabulary in the province.

**CITY GOVERNMENT** — Cities are corporate political bodies endowed with the attributes of perpetual succession and possessed with the powers which pertain to municipal corporation to be exercised by them in conformity with the provisions of their respective charters. Each city, unlike municipalities which are created under a general law, is created by a special law known as the city's charter passed by Congress. The charter provides for the organization of the city government, the chief city officials, and the powers and duties of the said officials. Cities derive their existence from the laws that create them. The charter of a city, just like any other law, may be repealed by Congress.

As of 1971 there are sixty-one chartered cities in the Philippines which are as follows:

- |                    |                    |                             |
|--------------------|--------------------|-----------------------------|
| 1. Manila          | 22. Davao          | 43. Pagadian                |
| 2. Angeles         | 23. Dipolog        | 44. Palayan                 |
| 3. Bacolod         | 24. Dumaguete      | 45. Pasay                   |
| 4. Bago            | 25. General Santos | 46. Puerto Princesa         |
| 5. Baguio          | 26. Gingoog        | 47. Quezon                  |
| 6. Bais            | 27. Iligan         | 48. Roxas                   |
| 7. Basilan         | 28. Iloilo         | 49. San Carlos (Neg. Occ.)  |
| 8. Batangas        | 29. Iriga          | 50. San Carlos (Pangasinan) |
| 9. Butuan          | 30. La Carlota     | 51. San Jose                |
| 10. Cabanatuan     | 31. Laoag          | 52. San Pablo               |
| 11. Cadiz          | 32. Lapu-Lapu      | 53. Silay                   |
| 12. Cagayan de Oro | 33. Legazpi        | 54. Surigao                 |
| 13. Calbayog       | 34. Lipa           | 55. Tacloban                |
| 14. Caloocan       | 35. Lucena         | 56. Tagaytay                |
| 15. Canlaon        | 36. Mandaue        | 57. Tagbilaran              |
| 16. Cavite         | 37. Marawi         | 58. Tangub                  |
| 17. Cebu           | 38. Naga           | 59. Toledo                  |
| 18. Cotabato       | 39. Olongapo       | 60. Trece Martires          |
| 19. Dagupan        | 40. Ormoc          | 61. Zamboanga               |
| 20. Danao          | 41. Oroquieta      |                             |
| 21. Dapitan        | 42. Ozamiz         |                             |

Except for Manila, Baguio and Quezon City, these chartered cities are classified according to their revenues during the preceding fiscal year as follows:

CLASS	TOTAL ANNUAL REVENUE DURING THE PRECEDING FISCAL YEAR
First	P1,000,000 or more
Second	700,000 or more but less than P1,000,000
Third	500,000 or more but less than P700,000
Fourth	300,000 or more but less than P500,000
Fifth	Less than P300,000

A readjustment of this classification shall not be made oftener than once in five consecutive years, except in cases of diminishing revenues when the President, upon the recommendation of the Office of the Local Government, may order the adjustment of the local classification of any city. The President shall order a general readjustment of the classification of all chartered cities for each period of five consecutive years from the date of the initial classification as provided for in Republic Act No. 840 approved on April 7, 1953. The classification of the chartered cities was made in 1958 pursuant to the provision of this Act.

The charters of the different cities provide for their corporate powers such as the right to have a common seal, and alter the same at pleasure, to purchase, hold, lease, convey, and dispose of real and personal property for the general interest of the city; to condemn private property for public use; to contract and be contracted with; to sue and be sued; and to exercise all other powers as may be conferred by law.

*City chief officials* — The chief officials of the chartered cities in the Philippines are the Mayor, the Vice-Mayor, and members of the Municipal Board or City Council. These officials are all elected at large by the qualified voters of the city on the same date as the elections for provincial and municipal officials.

Other officials include the city fiscals or attorneys, municipal judges, city engineers, city treasurers, city assessors, city health officers, and chiefs of police, who are appointed by the President of the Philippines with the consent of the Commission on Appointments.

Prior to the enactment of Republic Act No. 2259, approved on June 19, 1959, some city officials were elective, and others appointive. But in 1959, all the chief officials of the cities became elective. The first local election under the law was held on November 10, 1959.

A city mayor, vice-mayor, or councilor must be at least twenty-five years of age, resident of the city for at least one year prior to his election and a qualified voter before qualifying for the city post. Elective officials of the chartered cities can be removed and suspended for dishonesty, disloyalty, oppression and misconduct in office, the same grounds accounting for the removal or suspension of provincial elective officials. Where the charter does not provide for any ground, the elective officials of said city may be removed on the same grounds as provincial elective officials, aside from the ground of disloyalty.

*City Mayor* — The city mayor is the city's chief executive. His powers and duties, described in the charter of the city, include the giving of orders for the faithful enforcement and execution of the laws and ordinance; the safeguarding and control of all the lands, buildings, records, money, credit and other property of the city; the enforcement of tax collections and other revenues; the institution of judicial proceedings to recover property and funds of the city; supervision over all executive officers and employees of the city government; the

examination and inspection of goods, records and papers of the officers, agents and employees of the city government; the recommendation of measures to the Board; representation of the city in all business matters, including sessions of the Board; the taking of the necessary measures to prevent fires, floods, storms, and other public calamities; the appointments of city officers or employees whose appointment is not otherwise vested in the President, and the submission of the budget of the city to the board as required by law.

*City Council* — The composition of each city council as well as the legislative powers vested in each vary as provided for in each charter.

In Manila, the board is composed of the vice-mayor and twenty councilors (five from each representative districts) vested with the following powers: 1) To provide for the levy and collection of taxes in accordance with the law; 2) To fix the tariff of fees and charges for all services rendered by the city; 3) To provide necessary buildings for the use of the city; 4) To provide for the establishment and maintenance of free public schools for intermediate instructions and to acquire sites for school-houses for primary and intermediate classes; 5) To provide for the establishment and maintenance of an efficient police force; 6) To maintain the city courts established by law; 7) To regulate the manner of constructing and repairing buildings; 8) To establish and maintain engine houses, fire engines, and other equipment for the prevention and extinguishment of fires; 9) To regulate and fix the amount of license fees on certain individuals and business firms as enumerated by law; 10) To tax, fix and regulate the licenses on and the sale of intoxicating liquors; and 11) To provide for the maintenance of waterworks in order to supply water to the inhabitants of the city.

*City Departments.* City departments are organized to facilitate the functioning of the city government as provided for in their respective charters. The heads of these departments and their assistants are appointed by the President with the consent of the Commission on Appointments. They shall control and administer the affairs of their respective departments, under the direct supervision and control of the mayor. They shall certify to the correctness of all payrolls and vouchers of their departments. They shall prepare and present to the mayor an estimate of the receipts and appropriation necessary for the operation of their respective departments, for submission to the Board. They shall present to the mayor, reports covering the operations of his department as often as required.

**MUNICIPAL GOVERNMENT** — Municipalities are subdivisions of provinces. These units of local government are political corporate bodies and as such they are endowed with the faculties of municipal corporations. As public corporations, they can sue and be sued, acquire and convey property, and perform such other corporate functions as the law may allow. However, they are primarily agents of the central government assisting the latter in the administration of smaller units of local government.

Every municipal corporation has a twofold character, it is public or governmental and private or corporate. It is governmental in character in that it acts as an agent of the State in governing the territory and the inhabitants within the municipal limits. This includes the function of maintaining peace and order and protecting its inhabitants against fire and epidemic. In the performance of these functions, the municipal corporations cannot be held liable to private persons. Its private aspects lies in its performance of functions which are not strictly governmental or political; i.e., it acts in a similar category as a business corporation. It supervises the construction of markets and the establishment of municipal waterworks for the use of the inhabitants. In performing these corporate functions it has the same liability as an ordinary corporation or private individual.

*Chief officials.* The chief officials of the municipal government are the mayor, the vice-mayor, the treasurer, and the councilors. Except for the municipal treasurer who is appointed by the provincial treasurer in accordance with the Civil Service Law, these officials, are all elected by the qualified voters of the municipality for a term of four years. The elective municipal officials assume office on the first day of January next following their election.

The law prescribes certain qualifications of an elective municipal officer. At the time of his election he must be a qualified voter in his municipality; a resident of the said municipality for at least one year; not less than twenty-three years of age; and able to read and write intelligently either Spanish, English or the local dialect.

However, the ecclesiastics, soldiers in active service, persons receiving salaries or compensation from provincial or insular funds, or contractors for public works of the municipality cannot be elected or appointed to any municipal office.

An elective municipal officer may be allowed to resign in the interest of public service, but he may resign only with the approval of the provincial board. Thus, the presentation of a resignation does not cause a vacancy and he continues as municipal officer until his resignation is approved by the provincial board.

**Municipal Mayor.** The municipal mayor is the chief executive officer of the municipal government. It is his duty to exercise general supervision over local administrative affairs in conformity with the law and to see to it that all laws and municipal ordinances are faithfully executed in his municipality. He approves or disapproves ordinances and resolutions passed by the municipal council. He issues orders relating to the maintenance of public safety and order for the purpose of avoiding conflagrations, floods and the effects of storm or other public calamities. He presides at meeting of the municipal council and recommends measures connected with public health, cleanliness or ornament of the municipality or the improvement of its finances as he shall deem expedient. In the enforcement of sanitary laws and regulations, he cooperates with the health authorities. He also lends assistance and gives support to the provincial treasurer in the collection of taxes.

**Municipal Council.** The municipal council is composed of the mayor, vice-mayor and councilors. The number of councilors depends on the class of the municipality.

Municipalities in the Philippines are classified according to their average total revenue per annum during the last four fiscal years as follows:

CLASS	AVERAGE TOTAL REVENUE PER ANNUM FOR FOUR YEARS
First	P300,000 or more
Second	P200,000 or more, but less than P300,000
Third	P100,000 or more, but less than P200,000
Fourth	P 50,000 or more, but less than P100,000
Fifth	P 30,000 or more, but less than P 50,000
Sixth	P 15,000 or more, but less than P 30,000
Seventh	Less than P15,000

(Classification as embodied in R.A. 2368 Laws & Regulations, Vol. XIII — XV.)

The first five classes have eight councilors in the municipal council while the sixth and seventh have only six. Municipalities having an average total revenue of less than five thousand pesos per annum during the last four fiscal years have only four councilor members in the municipal council.

Members of the municipal council should represent the interest of the people of the entire municipality and participate in the exercise of the powers vested in the municipal council. They are supposed to exercise supervision over the barrios or districts under their care, informing the inhabitants on the council's acts or other governmental measures which concern them and informing the mayor in turn of unusual or disturbing events in his district.

The municipal council shall have the duty to: 1) to fix the salaries of all municipal officers and employees except treasurers and teachers in the public school; 2) to provide for expenditures of the lawful activities of the municipal government; 3) to provide for the collection of municipal taxes, fees, and charges constituting lawful sources of revenue; 4) to maintain an efficient police department and an adequate municipal jail; 5) to regulate the construction, care, and use of streets, sidewalks, canals, wharves and piers in the municipality; 6) to construct, repair and regulate the bridges and viaducts; 7) to regulate the selling or dispensing of intoxicating or fermented liquors at retail; 8) to declare and abate nuisances; 9) to restrain riots, disturbances, and disorderly assemblages; 10) to prohibit intoxication, gambling, prostitution and other disturbances of peace; 11) to provide for the suitable collection of garbage and the keeping of streets and parks clean; and 12) to establish and regulate the use of slaughter-houses and markets. The exercise of these duties however, should be done in accordance with the law.

**GOVERNMENT OF THE BARRIOS** — Barrios are units of the municipalities or municipal districts in which they are situated. They are quasi-municipal corporations endowed with such powers as are necessary for the performance of particular governmental functions to be exercised by and through their respective barrio governments in conformity with the law.<sup>1/</sup>

A barrio may, in its corporate name, sue and be sued, contract and be contracted with, acquire and hold real and personal property for purposes specified in the law, and generally to exercise the powers conferred upon them by law.

**Creation of Barrios.** The organization of barrio government is governed by the Barrio Charter, or Republic Act No. 2370, which was approved by the President of the Philippines on June 20, 1959. The legal existence and organization of barrios existing on the said date in the cities, municipalities and municipal districts are confirmed by the Barrio Charter.

Barrios shall not be created or their boundaries altered nor their names changed except under the provision of the Barrio Charter or by act of Congress. Upon petition of a majority of the voters in the area concerned, a new barrio may be created or the name of an existing one may be changed by the provincial board of the province, upon the recommendation of the council of the municipality or municipalities in which the proposed barrio is situated. The recommendation of the municipal council shall be embodied in a resolution approved by at least two-thirds of the entire membership of the said council. No new barrio may be created if its population is less than five hundred persons.

Boundary disputes between barrios within the same municipality shall be heard and decided by the municipal council, subject to appeal within thirty days from receipt of notice of the decision by the barrio council concerned to the corresponding provincial board whose decision shall be final.

**The Barrio Assembly.** The barrio assembly consists of all the qualified electors, who are duly registered in the list of barrio assembly members kept by the secretary of the said assembly, and have been residents of the barrio for at least six months.

The barrio assembly meets at least once a year to hear the annual report of the barrio council concerning the activities and finances of the barrio. It also meets when members of the barrio council are to be elected, upon call of the barrio council, and upon written petition of at least one-fifth of the members of the barrio assembly.

The barrio captain acts as the presiding officer at all meeting of the barrio assembly. The barrio council secretary shall be the secretary of the barrio assembly; and in his absence or inability, the assistant barrio council secretary shall discharge the duties of secretary of the barrio assembly.

<sup>1/</sup> Sec. 3 R.A. 2370, approved on June 20, 1959.



The barrio assembly has the power to elect members of the barrio council, act upon their resignation, if presented, and fill the vacancies therein by election. It is further vested with the power of providing a reasonable compensation of barrio council members when authorized by two-thirds vote of the barrio assembly, and adopting measures for the raising of funds for the barrio by taxation and by voluntary contributions. It should adopt measures for the good of the barrio and decide on measures submitted to it in accordance with law. Furthermore, it may enter into contracts for and in behalf of the barrio and it may authorize the barrio council to do so.

*The Barrio Council.* A barrio council is organized in each barrio with a barrio captain, a barrio treasurer, barrio vice-captain, and four council members who are all elected at a meeting of the barrio assembly.

The barrio council has the power to promulgate barrio ordinances consistent with the law or municipal ordinances. All barrio ordinances must be submitted within fifteen days after their approval to the municipal council. These shall take effect thirty days after their approval, unless the municipal council disapproves the same, in which case, they shall be returned to the barrio council for adjustments or repeal. Any disagreement between the barrio council and the municipal council shall be referred to the provincial fiscal for final action. Any violation of barrio ordinance shall be punishable by a fine of not more than one hundred pesos or imprisonment of not more than fifteen days, or both fine and imprisonment at the discretion of the court.

It is also responsible for constructing and/or maintaining within its boundaries certain public works as specified in the law, and for this purpose, to exercise the power of eminent domain with the approval of the municipal council.

It is also charged with undertaking cooperative enterprises that will improve the economic condition and well-being of the barrio residents as well as lectures of community assemblies which may serve to educate and enlighten the people in matters of public interest.

It may also accept any financial, technical, and advisory assistance from municipal, provincial or national government agencies in connection with any public works and cooperative enterprises.

## The Electorate

As provided for in the Constitution, sovereignty resides in the people and all governmental authority emanates from them. The Constitution is an expression of their will, and through their right of suffrage they safeguard their interests.

In 1969, the Philippines was divided into ten regions with a total of 66 provinces, composed of 110 representative districts and 59,975 precincts.

During the last presidential elections held in November 11, 1969, there were approximately 10,300,898 registered voters. Of these total, the male voters accounted for 5,581,590 or 54 percent, while female voters numbered 4,719,308 forming 46 percent. However, the female voters who actually voted surpassed their male counterparts with 80.20 percent as against 79.07 percent for the latter.

The percentage of voters who actually voted ranged from as low as 57.89 percent in Batanes to as high as 96.67 percent in Abra. On the whole, however, only 79.63 percent of the total voters actually voted during the said election as may be observed from Table II.1.

The 8.2 million who actually voted during the last presidential election voted for a president, vice-president, eight senators and members of the House of Representatives. A list of these elected officials, with their position and party affiliations are shown below.

NAME OF ELECTED OFFICIALS	Party Affiliation 1/
<b>PRESIDENT</b>	
Ferdinand E. Marcos	NP
<b>VICE-PRESIDENT</b>	
Fernando H. Lopez	NP
<b>SENATORS</b>	
Arturo M. Tolentino	NP
Gil J. Puyat	NP
Jose W. Diokno	NP
Lorenzo Sumulong	NP
Ambrosio Padilla	LP (Guest Of NP)
Gerardo M. Roxas	LP
Rene Espina	NP
Mamintal Tamano	NP

## MEMBERS OF THE HOUSE OF REPRESENTATIVES (110 seats)

Province	Representative District	Name of Representative	Party Affiliation
1. Abra	Lone	Carmelo Z. Barbero	LP
2. Agusan del Norte	Lone	Guillermo R. Sanchez	NP
3. Agusan del Sur	Lone	Democrito O. Plaza	NP
4. Aklan	Lone	Rafael B. Legaspi	NP
5. Albay	First	Amando D. Cope	NP
	Second	Carlos R. Imperial	NP
	Third	Roberto M. Sabido	NP
6. Antique	Lone	Enrique A. Zaldivar	LP
7. Bataan	Lone	Pablo R. Roman	NP
8. Batanes	Lone	Jorge A. Abad	LP
9. Batangas	First	Roberto C. Diokno	No Party
	Second	Expedito M. Leviste	NP
	Third	Jose B. Laurel, Jr.	NP (used)
10. Benguet	Lone	Andres A. Cosalan	NP
11. Bohol	First	Natalio P. Castillo	NP
	Second	Pablo Malasarte	NP
	Third	Teodoro B. Calagar	NP
12. Bukidnon	Lone	Cesar M. Fortich	NP
13. Bulacan	First	Teodulo C. Natividad	NP
	Second	Rogaciano M. Mercado	NP
14. Cagayan	First	Tito M. Dupaya	NP
	Second	David M. Puzon	NP
15. Camarines Norte	Lone	Fernando V. Pajarillo	NP
16. Camarines Sur	First	Ramon H. Felipe, Jr.	LP
	Second	Felix A. Fuentebella	NP
17. Camiguin	Lone	Jose P. Neri	NP
18. Capiz	First	Juliano A. Alba	LP
	Second	Cornelio T. Villareal, Sr.	NP
19. Catanduanes	Lone	Jose M. Alberto	NP
20. Cavite	Lone	Justiniano S. Montano	LP
21. Cebu	First	Ramon M. Durano	NP
	Second	John H. Osmeña	LP
	Third	Eduardo R. Gullas	NP
	Fourth	Gaudencio Beduya	NP
	Fifth	Emerito S. Calderon	NP
	Sixth	Manuel A. Zosa	NP
	Seventh	Celestino N. Sybico, Jr.	NP
22. Corabato	Lone	Salipada K. Pendatun	LP
23. Davao del Norte	Lone	Lorenzo S. Sarmiento	NP
24. Davao Oriental	Lone	Constancio B. Maglana	NP
25. Davao del Sur	Lone	Artemio Al. Loyola	NP
26. Eastern Samar	Lone	Felipe J. Abrigo	NP
27. Ifugao	Lone	Romulo B. Lumaig	NP
28. Ilocos Norte	First	Roque R. Ablan, Jr.	NP
	Second	Simeon M. Valdez	NP
29. Ilocos Sur	First	Floro Crisologo	NP
	Second	Lucas V. Cauton	NP
30. Iloilo	First	Jose C. Zulueta	No Party
	Second	Fermin Z. Caram, Jr.	NP
	Third	Gloria M. Tabiana	NP (IND)
	Fourth	Mariano B. Peñaflorida	NP
	Fifth	Jose M. Aldeguez	NP

<i>Province</i>	<i>Representative District</i>	<i>Name of Representative</i>	<i>Party Affiliation</i>
31. Isabela	Lone	Rodolfo B. Albano, Jr.	NP
32. Kalinga-Apayao	Lone	Felipe B. Almazan	NP
33. Laguna	First	Joaquin E. Chipeco	NP
	Second	Leonides C. de Leon	NP
34. Lanao del Norte	Lone	Mohamad Ali Dimaporo	NP
35. Lanao del Sur	Lone	Macacuna Dimaporo	NP
36. La Union	First	Joaquin Ortega	NP
	Second	Jose D. Aspiras	NP
37. Leyte	First	Artemio E. Mate	NP
	Second	Ma. Salud V. Parrefio	NP (Deceased)
	Third	Marcelino R. Veloso	NP
	Fourth	Rodolfo Rivilla	NP
38. Marinduque	Lone	Francisco M. Lecaroz	LP
39. Masbate	Lone	Emilio Espinosa, Jr.	NP
40. Misamis Occidental	Lone	William L. Chiongbian	NP
41. Misamis Oriental	Lone	Pedro N. Roa	NP
42. Mountain Province	Lone	Alfredo G. Lamen	LP
43. Negros Occidental	First	Armando C. Gustilo	NP
	Second	Roberto L. Montelibano	NP
	Third	Agustin M. Gatuslao	NP
44. Negros Oriental	First	Herminio G. Teves	NP
	Second	Lamberto L. Macias	NP
45. Northern Samar	Lone	Raul Daza	LP
46. Nueva Ecija	First	Leopoldo D. Diaz	NP
	Second	Angel D. Concepcion	NP
47. Nueva Vizcaya	Lone	Benjamin B. Perez	NP
48. Occidental Mindoro	Lone	Pedro C. Medalla	NP
49. Oriental Mindoro	Lone	Jose J. Leido, Jr.	NP
50. Palawan	Lone	Ramon V. Mitra, Jr.	LP
51. Pampanga	First	Jose B. Lingad	LP
	Second		
52. Pangasinan	First	Aguedo F. Agbayani	LP
	Second	Jose de Venecia, Jr.	NP
	Third	Corazon V. Primicias	NP
	Fourth	Antonio P. Villar	NP
	Fifth	Roberto B. Estrella	NP
53. Quezon	First	Moises A. Escueta	LP
	Second	Godofredo M. Tan	NP
54. Rizal	First	Neptali A. Gonzales	LP
	Second	Frisco F. San Juan	NP
55. Romblon	Lone	Esteban S. Madrona	LP
56. Samar	Lone	Fernando R. Veloso	NP
57. Sorsogon	First	Salvador Encinas	NP
	Second	Rafael C. Aquino	NP
58. South Cotabato	Lone	James L. Chiongbian	NP
59. Southern Leyte	Lone	Nicanor E. Yñiguez	NP
60. Sulu	Lone	Indanan M. Anni	NP
61. Surigao del Norte	Lone	Constantino C. Navarro	NP
62. Surigao del Sur	Lone	Jose G. Puyat, Jr.	NP
63. Tarlac	First	Eduardo M. Cojuangco, Jr.	NP
	Second	Jose V. Yap	LP
64. Zambales	Lone	Antonio M. Diaz	NP
65. Zamboanga del Norte	Lone	Felipe V. Azcuna	NP (IND)
66. Zamboanga del Sur	Lone	Vicente M. Cerilles	NP
CITY OF MANILA	First	Francisco G. Reyes	NP
	Second	Joaquin R. Roces	NP
	Third	Ramon D. Bagatsing	NP
	Fourth	Pablo V. Ocampo	NP

Table III.1 — Number of Representative Districts, Precincts, Registered Voters and Persons Who Actually Voted, By Region And Province: November 1969

Region and province	Representative Districts	Precincts	Registered voters			Persons who actually voted			Percentage of voting		
			Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>PHILIPPINES</b>											
Region I-Manila City of	4	2,748	491,035	275,136	217,899	335,651	183,682	151,969	68.36	67.25	69.74
Region II-Ilocos and Mountain Province	11	3,238	542,371	294,255	248,116	455,989	247,404	208,485	84.07	84.00	84.03
Abra	1	258	45,087	24,283	20,804	45,587	23,440	20,147	96.67	96.53	96.84
Benquet	1	586	66,406	39,749	26,657	51,534	30,861	20,673	77.60	77.64	77.55
Iligan	1	101	15,943	9,486	6,457	13,115	7,835	5,280	82.26	82.60	81.77
Ilocos Norte	2	665	116,278	59,498	56,780	101,022	51,775	49,247	86.88	87.02	85.73
Ilocos Sur	2	771	125,123	64,840	60,283	104,786	53,793	49,993	82.95	82.96	82.91
Kalinga Apayao	1	208	35,051	20,879	14,172	28,591	17,427	11,164	81.57	83.47	78.78
La Union	2	702	116,378	62,272	54,306	98,914	52,645	46,169	84.85	84.54	85.02
Mountain Province	1	147	21,905	13,248	8,657	15,440	9,628	5,812	70.49	72.68	67.14
Region III-Cagayan Valley and Batanes	5	2,090	347,328	194,967	152,361	287,519	161,796	125,723	82.78	82.99	82.52
Batanes	1	31	4,902	2,516	2,386	2,838	1,455	1,383	57.89	57.83	57.96
Cagayan	2	842	143,145	79,169	63,976	121,218	67,259	53,959	84.68	84.96	84.34
Isabela	1	904	144,116	82,119	61,997	117,183	67,055	50,128	81.31	81.66	80.86
Nueva Vizcaya	1	313	55,165	31,163	24,002	46,280	26,027	20,253	83.89	83.52	84.38
Region IV-Central Luzon	15	9,171	1,506,760	818,919	687,841	1,230,725	670,567	560,158	81.68	81.88	81.44
Bataan	1	421	73,650	40,464	33,186	63,754	32,991	27,763	82.49	81.55	83.66
Bulacan	2	1,733	283,414	153,834	129,580	234,136	127,355	106,781	82.68	82.79	82.56
Nueva Ecija	2	1,529	254,240	148,787	114,453	206,132	113,450	92,682	81.40	81.74	80.98
Pampanga	2	1,563	208,512	119,874	88,638	162,218	95,063	67,155	77.80	79.70	75.76
Pangasinan	5	2,590	413,281	226,990	206,291	366,874	191,894	174,980	84.67	84.54	84.82
Tarlac	2	927	151,965	83,558	68,407	120,327	66,730	53,597	79.18	79.57	78.70
Zambales	1	608	102,700	55,112	47,588	80,084	43,084	37,000	77.98	78.18	77.75
Region V-Southern Luzon and Islands	14	11,770	1,966,757	1,067,434	899,323	1,527,132	822,973	704,159	77.65	77.10	78.30
Batangas	3	1,775	285,073	152,958	132,115	241,532	129,794	111,738	84.73	84.86	84.58
Cavite	1	1,007	170,673	90,564	80,109	138,060	72,870	65,190	80.89	80.46	81.38
Laguna	2	1,343	222,081	117,459	104,622	191,737	101,315	90,422	86.34	86.26	86.43
Marinduque	1	255	42,768	22,380	20,388	36,547	19,132	17,415	85.45	85.49	85.42
Occidental Mindoro	1	244	42,597	23,611	18,986	35,594	19,788	15,806	83.56	83.81	83.25
Oriental Mindoro	1	545	87,490	48,075	39,415	73,055	39,761	33,294	83.50	82.71	84.47
Palawan	1	363	56,857	34,113	22,744	45,229	26,644	18,585	79.55	78.11	81.71
Quezon	2	1,701	280,019	154,570	125,469	223,800	122,796	101,004	79.92	79.44	80.51
Rizal	2	4,537	779,199	423,704	355,495	541,578	290,873	250,705	69.50	68.65	70.52
Region VI-Icoel and Masbate	10	4,487	775,876	417,746	358,130	641,308	344,452	296,856	82.66	82.45	82.89
Albay	3	1,026	182,732	96,784	85,948	156,794	82,835	73,959	85.81	85.59	86.05
Canamores Norte	1	411	73,645	41,597	32,048	58,950	33,044	25,906	80.05	79.44	80.83
Canamores Sur	2	1,440	235,527	128,334	105,193	189,621	104,091	85,530	81.20	81.11	81.31
Canaduanes	1	266	51,448	26,323	25,125	44,142	22,614	21,528	85.80	85.91	85.68
Masbate	1	661	111,519	59,669	51,850	87,375	46,967	40,408	78.73	78.71	77.93
Sorsogon	2	683	123,005	65,039	57,966	104,426	54,901	49,525	84.90	84.41	85.44
Region VII-Western Visayas	13	6,351	1,098,307	553,550	544,757	900,572	449,676	450,896	82.00	81.24	82.77
Aklan	11	468	83,105	38,779	44,326	67,725	30,977	36,748	81.49	79.88	82.91
Antique	1	445	74,933	35,375	39,558	63,103	29,365	33,738	84.21	83.01	85.29
Capiz	2	611	111,266	57,431	53,835	90,602	45,270	45,332	79.29	78.96	79.62
Iloilo	5	2,131	409,678	179,687	189,991	303,491	146,295	157,196	82.10	81.42	82.74
Negros Occidental	3	2,381	408,276	218,105	190,171	335,175	177,691	157,574	82.10	81.43	82.86
Romblon	1	285	48,019	24,273	23,746	40,176	20,168	20,008	84.24	83.09	85.41
Region VIII-Eastern Visayas	20	8,711	1,507,711	766,325	741,386	1,235,985	625,623	610,362	82.51	81.64	83.41
Bohol	4	1,711	208,413	98,742	109,671	171,622	82,566	89,056	84.41	83.63	85.19
Cebu	7	2,727	510,742	265,345	245,397	428,241	219,119	209,122	83.85	82.58	85.22
Eastern Samar	1	437	71,115	34,738	36,377	57,469	27,747	29,722	80.67	79.87	81.44
LeYTE	3	1,890	306,462	152,016	154,446	233,807	119,901	113,906	79.93	78.87	80.95
Negros Oriental	2	920	160,405	85,447	74,958	136,946	72,693	64,253	85.32	85.07	85.82
Northern Samar	1	456	74,743	38,492	36,251	58,798	30,181	28,617	78.68	78.41	78.96
Southern Leyte	1	456	74,535	36,591	37,944	60,640	30,053	30,587	82.16	82.13	82.79
Western Samar	1	653	107,614	54,273	53,340	85,522	43,384	42,139	79.17	78.92	81.05
Region IX-Northern Mindanao	10	4,753	895,138	480,601	414,534	712,450	378,967	333,483	79.50	78.85	80.15
Agusan del Norte	1	552	108,886	57,912	50,974	85,504	43,394	42,110	78.53	76.66	81.65
Agusan del Sur	1	269	66,981	38,740	28,241	50,943	29,094	21,849	76.06	74.87	77.68
Bukidnon	1	442	77,272	47,852	29,420	55,292	32,669	22,623	68.97	68.97	70.10
Comogon	1	106	18,906	9,117	9,789	16,558	8,265	8,293	90.15	90.66	90.25
Lanao del Norte	1	567	108,981	63,017	45,967	88,122	50,994	37,128	80.80	80.92	80.77
Lanao del Sur	1	670	129,635	65,802	63,833	102,783	52,551	50,232	79.79	79.66	79.92
Misamis Occidental	1	563	101,581	51,762	49,819	87,662	43,198	44,464	85.90	85.90	86.71
Misamis Oriental	1	742	126,758	67,684	59,074	100,505	53,058	47,447	79.60	78.59	80.42
Surigao del Norte	1	351	82,470	49,235	33,235	66,383	32,064	34,319	80.37	79.71	81.00
Surigao del Sur	1	393	74,265	38,493	35,772	60,798	31,504	29,294	81.87	81.84	81.89
Region X-Southern Mindanao and Sulu	8	6,664	1,169,615	714,654	454,961	867,462	527,953	339,509	74.17	73.88	74.62
Cotabato	1	1,442	243,664	161,137	82,527	182,076	122,226	59,850	74.72	75.85	72.52
South Cotabato	1	638	108,977	65,661	43,316	77,832	46,495	31,337	71.42	70.81	72.35
Davao del Norte	1	615	105,416	64,869	40,547	78,351	47,692	30,659	74.33	73.52	75.61
Davao del Sur	1	978	179,610	108,006	71,604	128,346	76,455	51,891	71.46	70.79	72.47
Davao Oriental	1	329	56,622	34,228	22,394	43,087	26,018	17,069	76.10	76.01	76.22
Sulu	1	842	166,542	96,690	69,852	127,257	72,991	54,266	76.41	75.49	77.69
Zamboanga del Norte	1	549	92,307	51,932	40,375	78,274	43,866	34,408	84.80	84.47	85.22
Zamboanga del Sur	1	1,271	216,477	132,131	84,346	152,239	92,210	60,029	70.33	69.79	71.17

Source: Commission on Elections.

## PHILIPPINE FOREIGN RELATIONS

A developing country such as the Philippines requires changes in its economic structure to achieve growth and development. The feasibility of accepting foreign aid and establishing foreign trade relations should be properly studied in the light of its effects on investments and capital accumulation. The impact of social and cultural relations with the foreign countries in the people's attitude and philosophy should also be well taken into account.

The indispensability of establishing foreign relation not only in effecting economic development but also for ensuring mutual protection and safety impelled the government to intelligently consider promoting foreign relations.

The Philippines is now adopting a more liberal foreign policy. It has relaxed its relations with the Soviet Union and Eastern Europe, particularly in cultural affairs, trade and travel. It is re-examining its agreements and treaties with the United States. It has expanded its relations with countries in Asia and Latin America. It has joined world and regional organizations founded on mutual relations among the member nations. All these the country saw fit for its economic, political, social and cultural welfare.

### Early Philippine Foreign Relations

Long before the arrival of the Spaniards in the Philippines, the Filipinos had commercial, political, and cultural relations with India, China, Japan, Arabia, Malaysia, Borneo, Java, Siam, and Sumatra. History records, for instance, that about the middle of the 13th century, ten Borneo Malays led by Datu Puti visited the Philippines and successfully negotiated with King Marikudo, a native ruler, for the purchase of the island of Panay for a gold salakot (a wide brimmed headgear) and a gold necklace. This was one of the earliest "international" agreements recorded in Philippine history.

On March 16, 1865, Miguel Lopez de Legaspi of Spain and Sikatuna of Bohol entered into a blood compact attesting their friendship, marking another Filipino experience in foreign relations.

During the Spanish regime, the Filipinos did not participate in directing the course of its foreign relations and domestic affairs. The Spanish Governor-General was in charge of the external affairs. He had the sole power to declare war and make peace and to enter into treaties with other countries.

With the advent of American rule, Filipinos were given their first opportunity to be represented in a foreign land. The Filipino Resident Commissioners in Washington performed the duties of the ambassadors we have today. But still they were not allowed to direct the foreign relation of their own country.

Under the Philippine Bill of 1902 and the Jones Law of 1916, the Philippines was entitled to send two Resident Commissioners to the United States. Under the Tydings-McDuffie Law of 1934, the Philippines sent a Resident Commissioner to the United States as "representative of the Commonwealth Government".

During the Commonwealth (1935-1946), the foreign affairs of the Philippines, by expressed provision of the Tydings-McDuffie Law, was under the direct supervision and control of the United States. It was only when the Philippines became a sovereign and independent Republic on July 4, 1946, that it started to manage its own foreign affairs.

In preparation for the independence of the Philippines, Congress enacted Commonwealth Act No. 683, approved on September 25, 1945, creating the Office of Foreign Relations under the control and supervision of the President of the Philippines. This office was to take charge of all matters affecting the relations of the Government of the Philippines with the United States, and of other matters relating to international relations which the President of the Philippines may consider proper to be placed under its charge.

## Department of Foreign Affairs

Commonwealth Act No. 732, approved on July 3, 1946, abolished the Office of Foreign Relations and created in its place the Department of Foreign Affairs. This Department is the Philippine counterpart of the U.S. State Department. The Department of Foreign Affairs is responsible for the coordination and execution of the foreign policies of the Republic of the Philippines and the conduct of its foreign relations. By executive orders the President is authorized to provide for the organization and operation of the Department of Foreign Affairs and the foreign service of the Republic of the Philippines.

The Department of Foreign Affairs is under the executive authority of a Secretary, assisted by an Undersecretary, both of whom are appointed by the President, with the consent of the Commission on Appointments. The Secretary of Foreign Affairs is both the agent and adviser of the President in the conduct of relations with other countries. Among his duties are: 1) the formulation and implementation of the foreign policy of the Philippines; 2) the conduct of its foreign relations; 3) the negotiation of treaties, conventions, and other agreements of similar force; 4) the administration of citizenship, immigration and navigation law of the Philippines abroad; 5) the protection of the rights and interests of Filipino citizens and juridical persons abroad; 6) the sending abroad of ambassadors, ministers, and other diplomatic and consular officers, and the reception of officers of friendly states in the Philippines; and 7) the performance of all functions concerning the relations of the Republic of the Philippines with other states and with international organizations of which the Republic of the Philippines is a member, or in which it is interested.

Since it is not possible for the Secretary of Foreign Affairs to be in different states at the same time, diplomatic agents are appointed to serve abroad under the authority and supervision of the Secretary. These agents are classified according to the regulation of the Congress of Vienna of March 19, 1815, and the Protocol of Aix-la-Chapelle of November 21, 1818, as:

- 1) ambassadors, legates or nuncios
- 2) envoys, ministers, or other persons accredited to sovereignty
- 3) minister residents
- 4) charge d'affaires accredited to the Ministers of Foreign Affairs.

The Foreign Service of the Philippines consists of embassies, legations, missions, consulate, and honorary consulate in 49 countries as listed below.

### PHILIPPINE REPRESENTATION ABROAD AS OF OCTOBER 1971

C O U N T R Y	Embassies & Consulate General Present Status of Representative	A D D R E S S
1. Agana	Consulate-Consul General	Perez Bros. Building Marine Drive/ P.O. Box CG, Agana Guam 96910 Tel. 7726-762 7726-703
2. Bad Godesberg	Embassy-Ambassador	West Freidrich Ebert 25 532 Bad Godesberg, Germany Tel. 6-99-96
3. Bangkok	Embassy-Ambassador	No. 760 Sukkumvidja, Amphus Phra Amphus Phra Kanong, Bangkok, Tel. 910008 910211
4. Berne	Embassy-Charge d' affaires	Korhausplatz 7, Berne Switzerland Tel. 22-62-32 22-62-33
5. Brazil	Embassy-Ambassador	252 Avenida N.S. de Copracabana, Apt. 501 Rio de Janeiro, Brazil Tel. 257-0890
6. Brussels	Embassy-Charge d' affaires	193 Chaussee de la Hulpe, 1170 Brussels Tel. 72-33-73 72-43-92

8. Cairo	Embassy-Ambassador	No. 5, Ibn El Walid St., Dokki, Cairo, U.A.R. Tel. 800074 804661
9. Canberra	Embassy-Ambassador	1 Moonah Place, Yarralumla, Canberra City, A.C.T. Australia Tel. 73-2535 73-2536
10. Chicago	Consulate-Consul General	6 North Michigan Avenue, Chicago, Illinois 60602 Tel. DE 2-6458
11. Colombo	Embassy-Charge d' affaires Ambassador	23 Havelock Road, Colombo 5, Ceylon Tel. 88746 82073
12. Djakarta	Embassy-Ambassador	6 and 8, Djalan Iman Bondjol, Djakarta, Indonesia Tel. 47942 43745 48917
13. Geneva	Embassy-Permanent Representative	Phil. Mission to the UN. & other International Organization, Rue de Lausanne, Geneva, Switzerland Tel. 31-83-20/29 31-68-88 31-11-20/29 31-73-06
14. Hague	Embassy-Ambassador	Laan Copes van Gattenburch 125, The Hague, Netherlands Tel. 60-48-20 60-48-21 65-63-98
15. Hamburg	Consulate-Consul General	2000 Hamburg 13, Jungfrauethal 13 Tel. 45-29-52 45-29-53
16. Hongkong	Consulate-Consul General	Lee Gardens, Room 222, 2nd Fl. 37 Haysan Ave., Hongkong Tel. H-760281 H-765978 H-7655524
17. Honolulu	Consulate-Consul General	2433 Pali Highway, Honolulu, Hawaii 96817, U.S.A. Tel. 556-316 556-317 556-318
18. Islamabad	Embassy-Ambassador	No. 68 Shaliman, 6/2 Islamabad, Pakistan Tel. 21327 22654 22721 23250
19. Kobe	Consulate-Consul General	Kobe International House, 5th Fl., 9/1 8-Chome, Gokodori, Fukiaku, Kobe, Japan Tel. 22-46-01 22-46-02
20. Kuala Lumpur	Embassy-Ambassador	No. 1 Changkat Kia Peng, Kuala Lumpur Tel. 22489 27464
21. Lagos	Embassy-Charge d' affaires	8 Mekunwen Road, Southeast Ikoyi 13, Lagos, Nigeria Tel. 2-03-24
22. Laos	Embassy-Charge d' affaires	Km. 4, Route de Thadeua, Vientiane, Laos Tel. PTT-2261
23. Lisbon	Embassy-Ambassador Charge d' Affaires	Avenida Engr. Duarte Pacheco 31, 7A Lisbon, Portugal Tel. 68-88-50 69-8859 Commercial Sec. 68-94-58
24. London	Embassy-Ambassador	9a Palace Green, Kensington W, 8, London, England Tel. 937-3646/7/8
25. Los Angeles	Consulate-Consul General	3075 Wilshire Boulevard, Los Angeles, California Tel.
26. Madrid	Embassy-Ambassador	Plaza de Alonzo Martinez 3, Madrid 4, Spain Tel. 224-86-90 224-86-98 224-86-99



27. Menado	Consulate-Consul General	Djalan, Brig. Gen. Katamo No. 100, Sario, Menado Tel. 987
28. Mexico	Embassy-Ambassador	Edificio Jena, 10 Piso, Lieja 8, Esquina Paseo de la Reforma, Mexico 6, D.F. Tel. 5-14-81-17 5-14-81-21 5-28-91-52
29. New Delhi	Embassy-Ambassador	50-H, Nyaya Marg. Chanakyapuri New Delhi 21 Tel. 78491 78942 78493
30. New Orleans	Consulate-Consul General	Suite 1440-43 International Trade Mart, No 2, Canal St., Louisiana, New Orleans 70130 Tel. 524-2755 524-2756
31. New York	Consulate-Consul General	15 East 66th Street, New York, New York 10021 Tel. (212) 879-0800
32. Ottawa	Embassy-Ambassador	130 Albert Street, Suite 607, Ottawa 4, Ontario, Canada Tel. Area Code 613-233-1121
33. Paris	Embassy-Ambassador	26 Georges Mandel Avenue, Paris 16e, France Tel. 704-65-50 704-65-51 704-65-52
34. Phnom Penh	Embassy-Ambassador	65 Sanidech Pann, Phnom Penh, Cambodia Tel.
35. Rangoon	Embassy-Ambassador	Manaw Hari Road 50, Rangoon, Burma Tel. 12652
36. Rome	Embassy-Ambassador	Via San Valentino 12, Rome Tel. 803-503 803-531-598
37. Saigon	Embassy-Charge d' affaires	(South) 42 Doan-Thi-Diem Street, Saigon, Saigon Republic of Vietnam Tel. 22-869 22-425
38. San Francisco	Consulate-Consul General	170-24th Avenue, San Francisco California 94121 Tel. 387-3322
39. Seattle	Consulate-Consul General	Suites 835-838 Central Bldg. 810-3rd Avenue, Seattle Tel. Ma-4-7703 Ma-4-7704
40. Seoul	Embassy-Ambassador	7th & 8th., Yun Bang Bldg., 30-1 Mook Jung Dong, Jung Ku Seoul, Korea Tel. Yongsan 6461 54-2861 54-2862
41. Singapore	Embassy-Ambassador Charge d' Affairs	Rm. D-1 Fourth Fl., International Bldg., 360 Orchard Road, Singapore 9 Tel. 373977 3732993
42. Sydney	Consulate-Consul General	261 George Street, Sydney Tel. 27.2324 27.2325
43. Taipei	Embassy-Ambassador	No. 80 Jen-ai Road, Sydney 4, Taipei Tel. 773141 773142 773143
44. Tel-Aviv	Embassy-Ambassador	No. 4 Karem Hayesod Street Herzliya, Israel, Tel-Aviv Tel. 930063 930062
45. Tokyo	Embassy-Ambassador	No. 6-15 Roppongi, 5-chome Minato-ku Tokyo, Japan Tel. 5834101/7
46. United Nations	Embassy-Permanent Representative	13 East 66th Street, New York, United Nations, U.S.A. 10021 Tel. Yukon 8-9100

47. Vancouver	Consulate-Consul General	525 Seymour Street, Suite 909-915 Vancouver, B.C. Canada (Area Code 604) Tel. 685-7645
48. Vatican	Embassy-Ambassador	Via Gian Giacomo Porro 18, 00197 Rome, Italy Tel. 870.717 802.464
49. Washington	Embassy-Ambassador	1617 Mass. Ave., N.W., Washington, D.C. Tel 462-1400

Some foreign countries have established diplomatic or foreign relations with the Philippines and they have sent their ambassadors, charge d' affaires, and consuls general to Manila to represent their secretary or ministers of Foreign Affairs.

As of October, 1971, thirty five such countries are represented in the Philippines as shown in the list below.

### REPRESENTATION OF OTHER COUNTRIES IN THE PHILIPPINES

C O U N T R Y	Embassies & Consulate General Present Status of Representative	A D D R E S S
1. Argentina	Embassy-Ambassadors	Chancery: Rms. 408-411 4th Fl., Oledan Bldg. 131-133 Ayala Ave., Makati Rizal P.O. Box 1034 Tels. 87-56-55 88-69-38
2. Australia	Embassy-Ambassadors	Chancery: 3rd Fl. CBS Bldg., Paseo de Roxas, Makati, Rizal Tel. 88-26-72, 87-49-61, 88-26-71
3. Belgium	Embassy-Ambassadors	Chancery: 10th Fl., Filipinas Life Bldg., 6786 P.O. Box 890 Mla. 12106 Tels. 88-07-33 88-35-25
4. Brazil	Embassy-Ambassadors	Chancery: 11th Fl. Ramon Magsay- say Center 1680 Pres. Roxas Blvd., Tels. 58-18-45 58-19-24 Manila
5. Burma	Embassy-Charge d' affaires	Chancery: Ground Fl., ADC Bldg. 6805 Ayala Ave., Makati Rizal Tels. 88-90-61 87-23-24
6. Ceylon	Embassy-Charge d' affaires	Chancery: 507 Buendia Ave., Ext., North Forbes Park Makati, Rizal Tel. 88-45-24
7. Chile	Embassy-Charge d' affaires	Residence-18 Tanquile Rd. North Forbes Park, Makati, Rizal Tels. 88-29-20 88-43-75
8. China	Embassy-Ambassadors	Chancery: 2018-2038 Pres. Roxas Blvd., Manila Tels. 50-26-31 to 35
9. Denmark	Consulate-Consul General	Mla. Office: Rm. 212 L & S Bldg. 1414 Pres. Roxas Blvd., Manila Tel. 50-52-85 Consular Section 6th Fl. Shudut Bldg. Gen. Luna St., Intramuros Mla. P.O. Box No. 300 Tel. 40-81-16
10. France	Embassy-Ambassadors	Chancery: Filipinas Life Assurance Bldg. 5th Fl. 6786 Ayala Ave., Tels. 87-65-61 to 63 Makati, Rizal Commercial Section: 9th Fl. Insular Life Bldg. 6781 Ayala Ave., Makati, Rizal

11. Germany	Embassy-Ambassador	Chancery: Sixth Fl. L & S Bldg. 1414 Pres. Roxas Blvd., Manila P.O. Box 24 Tel. 59-20-91
12. Holy See	Apostolic Nunciature Apostolic Nuncio	Chancery: 2140 Taft Ave., Manila P.O. Box 3604 Tel. 58-30-72
13. India	Embassy-Ambassador	Chancery: Room 502, Campos Rueda Bldg. 101 Tindalo St., Makati, Rizal Tels. 87-24-45 87-33-39
14. Indonesia	Embassy-Ambassador	Chancery: Mayflower Bldg. 2515 Leon Guinto Sr. St., Malate, Mla. P.O. Box 2719 Tels. 59-98-11 59-98-14
15. Israel	Embassy-Ambassador	Chancery: R-538 Metropolitan Bank Bldg. 6813 Ayala Ave., Makati, Rizal D708 P.O. Box 374 Tels. 88-53-29 88-53-20
16. Italy	Embassy-Ambassador	Chancery: 7th Fl. Vicente Madrigal Bldg., 6793 Ayala Ave., Makati Rizal D-708 Commercial Center P.O. Box 1131 Tels. 87-61-41 88-78-43 88-71-37
17. Japan	Embassy-Ambassadors	Chancery: Third Fl. Sikatuna Bldg. 6762 Ayala Ave., Makati, Rizal Tels. 88-23-91 89-18-30 89-18-36 89-43-41
18. Khmer Republic	Embassy-Ambassador	Chancery: 3rd Jalandoni Bldg. 1444 A. Mabini St., Ermita, Manila Tels. 59-49-48 59-12-39
19. Korea	Embassy-Ambassador	Chancery: Second Fl. Rufiro Bldg., 6784 Ayala Ave., Makati, Rizal Tels. 88-64-24 88-64-17
20. Malaysia	Embassy-Ambassador	7th Fl. Architectural Center Bldg. Ayala., Makati, Rizal Tels. 87-45-76 87-45-77 87-45-78
21. Malta	Legation of the Sovereign	Chancery: No. 3 Harvard Rd. Forbes Park, Makati Rizal P.O. Box 1220 Makati, Rizal D-708 Tel. 87-21-95
22. Mexico	Embassy-Ambassador	Chancery: L & S Bldg. 1414 Roxas Blvd. P.O. Box 2924 Manila Tel. 59-83-16 59-82-01
23. Netherlands	Embassy-Ambassadors	Chancery: Metropolitan Bank Bldg. 6th Fl. 6813 Ayala Ave., Makati Rizal P.O. Box 909 Mla. Tels. 88-77-53 88-77-68
24. Norway	Embassy-Ambassadors	Chancery: Rm 205 L & S Bldg. 1414 Roxas Blvd. P.O. Box 1241 Manila Tels. 59-11-34 50-25-92
25. Pakistan	Embassy-Ambassador	Chancery: 3rd Fl. Consolidated Mines Inc., Bldg. 6799 Ayala Ave., Makati, Rizal D-708 Tels. 88-27-76 88-58-53 88-27-60
26. Portugal	Embassy-Ambassador	Chancery: Rms. 425-427 Philam- life Bldg. U.N. Ave., Manila Tels. 48-19-95 40-19-19

27. Singapore	Embassy-Ambassador	Chancerry: 5th Fl. JMT Bldg., Ayala Ave., Makati, Rizal Tels. 89-45-96 89-45-97
28. Spain	Embassy-Ambassador	Chancerry: 2285 Roxas Blvd., Pasay City Tels. 80-10-50 80-10-59 Consular Section 2285 Roxas Blvd Mla. Office.
29. Sweden	Embassy-Consul General	10th Fl. PAL Bldg. 6780 Ayala Ave., Makati, Rizal P.O. Box 1125 Makati Commercial Center Tels. 88-25-10 88-51-22 (Consulate General)
30. Switzerland	Embassy-Ambassador	Chancerry: Gochangco Bldg. 616 T.M. Kalaw St., Ermita, Mla. P.O. Box 2515 Mla. Tels. 40-38-56 & 57
31. Thailand	Embassy-Ambassador	Chancerry: Sixth Fl. Rms. 603-606 Oledan Bldg. 131 Ayala Ave., Makati, Rizal P.O. Box 41 Makati, Rizal, Rizal D-708 Tels. 87-64-91 87-64-96
32. Republic of United Arab	Embassy-Ambassador	Third Fl. Gochangco Bldg. 610 Teodoro M. Kalaw St., Ermita Mla. Tels. 40-45-07 40-47-91
33. United Kingdom of Britain & Northern Ireland	Embassy-Ambassador	Eighth Fl. L & S Bldg. 1414 Pres. Roxas Blvd., Manila Tels. 59-24-61 to 65 58-27-71 to 73
34. U.S.A.	Embassy-Ambassador	Pres. Roxas Blvd., Manila Tel. 59-80-11
35. Viet-Nam	Embassy-Ambassador	554 Vito Cruz, Malate, Mla. Tels. 50-33-95 Office of Ambassador 59-78-16

### Philippine American Relations

In the formulation of Philippine foreign policies, the relations between the Philippines and the United States occupy a special position. In fact, on the very same day that the Philippines became an independent Republic, it entered into a treaty of general relations with the United States.

*The Treaty of Good Relations.* On July 4, 1946, the United States and the Republic of the Philippines, "being animated by the desire to cement the relations of close and long friendship existing between the two countries" signed the Treaty of Good Relations in Manila with Ambassador Paul V. McNutt signing for the United States, and President Manuel Roxas signing for the Republic of the Philippines.

This treaty provided for the withdrawal of American sovereignty in the country and the recognition of the independence of the Republic of the Philippines. It was stipulated, however, that the surrender of American authority in the Philippines did not include military bases which the United States might establish by agreement with the Republic of the Philippines for their mutual protection. The diplomatic and consular representatives of each country were to enjoy the privileges and immunities under international law, and pending the establishment of a Philippine Foreign Service, the United States would represent the interest of the Republic of the Philippines abroad.

It was also provided in the treaty that the Republic of the Philippines was to assume the debts and liabilities of the Philippines; that Philippine cases pending before the Supreme Court of the United States were to continue to be subject to the review of said court even after the granting of Philippine independence; that property rights of the two countries were to be promptly adjusted and settled; and that the Republic of the Philippines was to assume all continuing obligations of the United States under the Treaty of Paris, dated December 10, 1898, and under the Treaty between the United States and Spain concluded at Washington on November 7, 1900.

*Military Base Agreement.* On March 14, 1947 the Military Base Agreement was signed at Manila with Ambassador Paul V. McNutt representing the United States, and President Manuel Roxas signing for the Republic of the Philippines.

Under the Agreement, the Philippines gave the United States the right to retain the use of the military bases as specified in the Agreement itself. The Philippines agreed to give the United States the right to exercise jurisdiction over: a) any offense committed by any person within any base except where the offender and the offended parties are both Philippine citizens (not members of the Armed Forces of the United States on active duty) or the offense is against the security of the Philippines; b) any offense committed outside the bases by any member of the Armed Forces of the United States in which the offended party is also a member of the Armed Forces of the United States; and c) any offense committed outside the bases by any member of the Armed Forces of the United States against the security of the United States. It was also provided that the Philippines shall have jurisdiction over all offenses committed outside the bases by any member of the Armed Forces of the United States.

A week after the signing of the Military Base Agreement, the Agreement on Military Assistance was executed. Under this Agreement, the Republic of the Philippines received military equipment, and naval vessels from the United States Army and Navy. American officers aided the Philippine Army in the latter's training program, thus laying the ground for the active participation of the Philippines in military operations.

## The Philippines and Her Asian Neighbors

Part of the Philippine foreign policy is the development of closer ties with her Asian neighbors on the basis of mutuality of interests and subject to the limitations imposed by ideological differences. Geographical propinquity and racial affinity have brought the Asians together.

The Philippines and the Republic of China signed a Treaty of Amity on April 18, 1947 in order to strengthen and perpetuate the friendly relations between the two countries. It was agreed that there shall be perpetual peace and everlasting amity between the Republic of the Philippines and the Republic of China. Since then, the Philippines has signed similar treaties with other countries not only in Asia but also in Europe and Latin America.

On April 26, 1959, the Philippines and Vietnam signed a Treaty of Friendship. It was agreed in this treaty that any dispute between the two parties which cannot be resolved through ordinary diplomatic means shall be referred to the International Court of Justice for final adjudication.

On April 28, 1959, a cultural agreement was signed between the Philippines and Indonesia, wherein they agreed to stimulate the exchange of government publications, literary and scientific publications, non-commercial radio broadcasts on culture, art, science and technical data, and the exchange of individuals and groups of individuals particularly professors, students, and technical experts.

The Philippines and Japan, former enemies in war, are now friends in peace. Payment of war reparations accelerated the return of normal relations between Japan and the Philippines. Capital goods and technical services furnished by Japan helped greatly in the rehabilitation of the Philippines. The signing of the Treaty of Friendship, Commerce and Navigation on December, 1960 was another step taken in the mutual efforts of the two countries to normalize foreign relations between them; although the Senate of the Philippines has not ratified this treaty until now.

The Philippines has further intensified its efforts in regional cooperation by its participation in the Association of Southeast Asian Nations (ASEAN) and the Asian and Pacific Council (ASPAC) out of the growing awareness of the need for rallying to one another's side in order to secure their independence within the competing spheres of influence of the super-powers.

*The Southeast Asia Collective Defense Treaty.* On September 8, 1954, a conference attended by representatives of eight nations was held in Manila to form a regional defensive alliance, which is now popularly known as SEATO or the Southeast Asia Treaty Organization. These nations are Australia, France, New Zealand, Pakistan, Philippines, Thailand, United Kingdom and the United States.

Under the Treaty, each party "recognizes that aggression by means of armed attack in the treaty area against any of the parties or against any State or territory which the parties by unanimous agreement may designate, would endanger its own peace and safety and agrees that it will in that event act to meet the common danger in accordance with the constitutional processes." The Protocol to the Southeast Asia Collective Defense Treaty includes Cambodia, Laos and the "free territory under the jurisdiction of the State of Vietnam" within the treaty area.

## The Philippines and the United Nations

The Philippines adopts the generally accepted principles of international law as a part of the law of the Nation. With this declaration, which is contained in its Constitution, the Philippines recognizes the existence of a family of nations of which it is a member.

As early as 1942, the Philippines showed its interest in international affairs when it signed the United Nations Declaration pledging all her resources with other 25 states in their common struggle against their enemies. The Philippines participated in the San Francisco Conference of 1945, and signed and ratified the Charter of the United Nations as an original member. Then on, the Philippines has always been an active member of the United Nations. In fact, in 1949, Carlos P. Romulo, a Filipino was elected President of the General Assembly. The Philippines was also a member of the Security Council in 1957 sharing the two-year term (1956-57) with Yugoslavia which took the first half of the term. She is also a member of the UN specialized agencies, such as the FAT, UNESCO, WHO, ILO, ICAO, ECAFE, IMF and the WORLD BANK. In 1960, the Philippines became a deputy member of the governing body of the ILO; vice-chairman of the special committee; member of the UN Commission on the Status of Women; and chairman of the 26th Session of the Trusteeship Council.

In 1968, she played an important role in the meeting of the United Nations Conference on Trade and Development (UNCTAD) in New Delhi which is a corollary of the first meeting of the said organization in Geneva in 1964 which adopted the principle that the developed countries grant non-reciprocal trade preference to the developing countries as a corollary of the Second Development Decade. This policy was reiterated in the Charter of Algiers in 1967 and in New Delhi in 1968.







**EMILIO AGUINALDO**  
1898-1901



**MANUEL L. QUEZON**  
1935-1944



**JOSE P. LAUREL**  
1943-1945



**SERGIO OSMEÑA**  
1944-1946



**MANUEL ROXAS**  
1946-1948



**ELPIDIO QUIRINO**  
1948-1953



**RAMON MAGSAYSAY**  
1953-1957



**CARLOS P. GARCIA**  
1957-1961



**DIOSDADO MACAPAGAL**  
1961-1965



**FERDINAND E. MARCOS**  
1965 —

## CHAPTER III. POPULATION

### CENSUS OF POPULATION

This section presents the Philippine population from the earliest census or estimate available until the latest census of May 6, 1970. Emphasis will be placed on the results of the 1970 population census, but inasmuch as a few of the demographic characteristics such as civil status, mother tongue, and principal religious denominations of the population are still being processed, information on these matters will be taken from censuses prior to 1970.

#### Early Censuses and Estimates

The earliest estimate of the population of the Philippines dates back to the time of the conquest of the islands by Legaspi, about 1570. This gives the total number of people at about half a million.

A second estimate was made for the year 1591, which was based on the number of tributes comprising an "encomienda." There were 166,903 tributes counted, each of which supposedly represented four persons, giving a total population of 667,612. This was the only estimate based on "encomiendas" for the system ceased in 1600.

Other estimates were based mostly on church records because the people were distributed among religious orders by parishes. All the church attendants were counted including births, deaths, and marriages and a record thereof was made to serve as basis of population estimate by church authorities. In 1799, the christian population was 1,502,574 as compiled by Buzeta.

Another source of information concerning the population is in the number of "cedulas" sold. A "cedula" is a per capita tax which was obligatory upon all males between certain ages. The number of such "cedulas" multiplied by an arbitrary factor is presumed to give an approximation to the population.

In 1877 and 1887, civil censuses were taken by the Spanish authorities which formed the basis of the estimated population for the year 1896.

Table III. 1 shows the results of the early estimates of the Philippine population from 1799 to 1899. For this period, the average annual growth rate of the population was 1.61 per cent.

Table III.1—PHILIPPINE POPULATION AND GROWTH RATE: 1799 TO 1899

Year	Population	Average Annual Rate of Increase	Source of Data
1799 <sup>a</sup>	1,502,574	-	Buzeta
1800 <sup>a</sup>	1,561,251	3.90	Buzeta
1812 <sup>a</sup>	1,933,331	1.80	Cedulas
1819 <sup>a</sup>	2,106,230	1.23	Cedulas
1829 <sup>a</sup>	2,593,287	2.10	Church
1840 <sup>a</sup>	3,096,031	1.62	Local officials
1850 <sup>a</sup>	3,857,424	2.22	Buzeta
1859 <sup>a</sup>	4,290,381	1.34	Bouring
1870 <sup>a</sup>	4,712,006	0.78	Gula official
1877 <sup>a</sup>	5,567,685	2.41	Census
1887 <sup>a</sup>	5,984,727	0.72	Census
1896 <sup>a</sup>	6,261,339	0.50	Prof. Flein's estimate based on census records
1899 <sup>a</sup>	6,703,311	2.30	Fr. Algue

<sup>a</sup> Does not include non-Christians.

Source: Bureau of the Census and Statistics, Population Division.

## Growth in the Present Century

Table III.2 shows the growth of the Philippine population in the present century. In 1903, the Philippine population was 7,635 thousand. During the next 15 years, the population grew by 2,679 thousand, bringing the total to 10,314 thousand, or an average annual rate of growth of 1.89 percent. Between 1918 and 1939, 5,686 thousand were added reaching a total of 16,000 thousand. Military losses during the Second World War and losses owing to internal strife brought about a retardation in population growth so that by 1948 the population was only 3,234 thousand more than that in 1939. This decreased the average annual rate of growth from 2.23 percent during the period 1918 to 1939 to only 2.06 percent between 1939 and 1948. In the next census year, 1960, or an interval of almost 12 years the population increased by 7,854 thousand — more than twice that of the preceding nine years. In 1970, the population increased further by 9,597 thousand to become 36,685 thousand.

From 1903 to 1939 the average annual increment was 233,591; this average went up to 808,258 between 1948 and 1970, giving an overall average annual rate of increase of 2.82 percent from 1903 to 1970 as compared to 1.61 percent of the last century.

Table III.2.—POPULATION AND AVERAGE ANNUAL RATE OF GROWTH BY PROVINCE CENSUS YEARS: 1903, 1918, 1948, 1960 AND 1970

Provinces	Population (in thousand)						Average annual rate of growth				
	1970	1960	1948	1939	1918	1903	1960-70	1948-60	1939-48	1918-39	1903-18
<b>PHILIPPINES</b>	<b>36,685</b>	<b>27,088</b>	<b>19,234</b>	<b>16,000</b>	<b>10,314</b>	<b>7,635</b>	<b>3.01</b>	<b>2.08</b>	<b>2.06</b>	<b>2.23</b>	<b>1.61</b>
Abra	146	115	87	88	73	52	2.36	2.48	-1.13	.93	2.17
Agusan del Norte	278	271	126	99	45	31	5.16	6.97	2.71	4.00	2.36
Agusan del Sur	175	226	197	177	137	114	1.49	1.22	1.49	1.28	1.17
Albay	674	915	395	334	260	201	2.67	2.36	1.88	1.26	1.64
Antique	289	238	234	199	155	136	1.92	0.15	1.81	1.25	0.83
Bataan	226	145	93	86	58	47	3.98	3.78	0.87	1.98	1.34
Batanes	12	10	11	10	8	8	1.80	-0.3	1.06	1.12	0.00
Batangas	926	681	510	442	340	258	3.05	2.58	1.60	1.32	1.76
Benguet	254	683	553	492	358	269	1.39	.62	1.30	1.60	1.82
Bohol	415	194	63	58	40	21	7.72	10.40	.92	1.87	4.15
Bukidnon	837	556	411	333	249	224	4.08	2.69	2.36	1.46	.67
Bulacan	981	445	311	292	191	148	2.64	3.20	.70	2.14	1.62
Camarines Norte	262	188	104	98	52	46	3.30	5.15	.66	3.21	.78
Camarines Sur	948	820	554	386	219	194	1.43	1.50	4.09	2.86	.77
Camiguin	54	316	245	229	155	117	2.18	2.26	.75	3.49	-1.11
Capiz	162	156	112	99	64	39	.77	2.96	1.38	2.20	3.18
Catanduanes	520	778	263	239	157	118	2.17	3.24	1.07	2.13	.96
Cavite	1,634	1,333	1,123	1,068	855	654	2.01	1.52	.56	1.11	1.71
Cebu	1,136	1,029	440	299	172	126	4.43 <sup>a</sup>	7.76	4.38	2.79	1.99
Cotabato	443	893	365	293	107	65	5.04	8.19	2.47	5.14	3.20
Davao del Norte	785	668	737	546	380	266	1.98 <sup>b</sup>	1.21	3.69	1.82	2.28
Davao del Sur	248	91	251	238	219	179	1.72	1.22	.99	.42	1.28
Davao Oriental	271	288	276	272	247	150	1.28	1.80	.16	.48	1.67
Eastern Samar	91	816	816	744	503	410	1.88	1.50	1.03	1.97	1.30
Ifugao	343	442	264	220	113	76	3.81	4.64	2.04	3.37	2.54
Ilocos Norte	363	294	237	208	178	138	2.38	1.91	1.46	.78	1.62
Ilocos Sur	385	472	321	280	196	149	3.93	3.45	1.53	1.79	1.75
Iloilo	1,168	700	132	99	21	22	2.53	6.53	3.24	8.03	-2.58 <sup>c</sup>
Isabela	648	472	321	280	196	149	1.85	5.42	4.38	3.66	1.46
Kalinga-Apaya	136	271	1,077	916	598	389	1.45 <sup>d</sup>	1.35	1.06	2.15	2.75
La Union	374	1,131	1,079	984	623	285	1.54	1.29	5.20	3.97	1.65
Laguna	700	472	321	280	196	149	3.93	3.45	1.53	1.79	1.75
Lanao del Norte	350	271	132	99	21	22	2.53	6.53	3.24	8.03	-2.58 <sup>c</sup>
Lanao del Sur	1,456	778	212	144	70	-	1.85	5.42	4.38	3.66	1.46
Leyte	1,131	1,173	1,077	916	598	389	1.45 <sup>d</sup>	1.35	1.06	2.15	2.75
Manila	1,331	1,139	984	623	285	220	1.54	1.29	5.20	3.97	1.65
Marinduque	144	115	86	82	57	52	2.22	2.59	.53	1.83	.98
Masbate	493	335	211	182	68	44	3.85	4.15	1.65	5.02	.78
Misamis Occidental	340	248	208	210	81	45	2.53	1.56	-1.11	4.86	3.78
Misamis Oriental	473	389	370	214	127	87	3.02 <sup>e</sup>	.44	6.26	2.63	2.42
Mountain Province	93	436	278	297	194	136	2.90 <sup>f</sup>	4.04	-7.3	2.14	2.27
Negros Occidental	1,504	1,332	1,039	825	397	308	1.20	2.21	2.59	3.71	1.62
Negros Oriental	715	598	443	395	273	201	1.76	2.67	1.28	1.86	1.95
Northern Samar	326	608	468	417	227	134	3.34	2.33	1.29	3.07	3.39
Nueva Ecija	222	139	83	79	36	20	4.69	4.64	.55	3.99	3.78
Nueva Vizcaya	144	84	43	39	28	13	5.42	6.07	1.09	1.66	4.97
Occidental Mindoro	328	229	125	92	44	24	3.98	5.47	3.46	3.74	3.90
Oriental Mindoro	237	163	106	69	36	26	3.73	3.86	3.34	1.55	4.30
Palawan	507	617	417	375	258	224	3.84	3.51	1.18	1.88	.90
Pangasinan	1,386	1,124	920	742	566	443	2.07	1.78	2.41	1.36	1.56
Quezon	983	653	417	398	212	153	4.08	4.02	1.71	2.64	2.08
Rizal	2,845	1,456	673	445	230	151	6.77	7.02	4.69	3.34	2.69
Romblon	167	132	109	99	65	53	2.53	1.70	1.07	1.12	1.30
Samar	427	348	291	247	178	120	2.02	1.99	1.83	1.64	2.52
South Cotabato	466	327	241	247	173	91	2.62	2.72	-2.27	1.79	4.14
Southern Leyte	251	360	265	226	123	84	3.21	2.73	1.78	3.08	2.44
Surigao del Norte	239	427	327	264	172	135	2.69	2.77	2.40	2.16	1.54
Surigao del Sur	560	214	139	107	84	60	4.72	3.87	2.94	1.21	2.15
Tarlac	343	281	167	139	57	17	3.74	4.68	2.06	4.54	7.94
Western Samar	442	354	234	217	97	81	3.30	6.73	5.58	4.48	.67
Zamboanga	439	281	167	139	57	17	3.74	4.68	2.06	4.54	7.94
Zamboanga del Norte	1,034	742	354	217	97	81	3.30	6.73	5.58	4.48	.67
Zamboanga del Sur	1,034	742	354	217	97	81	3.30	6.73	5.58	4.48	.67

a/ Includes 1970 data of South Cotabato.

b/ Includes 1970 data of Northern and Western Samar.

c/ Includes 1970 data of Southern Leyte.

d/ Includes 1970 data of Camiguin.

e/ Includes 1970 data of Benguet, Ifugao and Kalinga-Apaya.

f/ Includes 1918 data of Lanao del Sur.

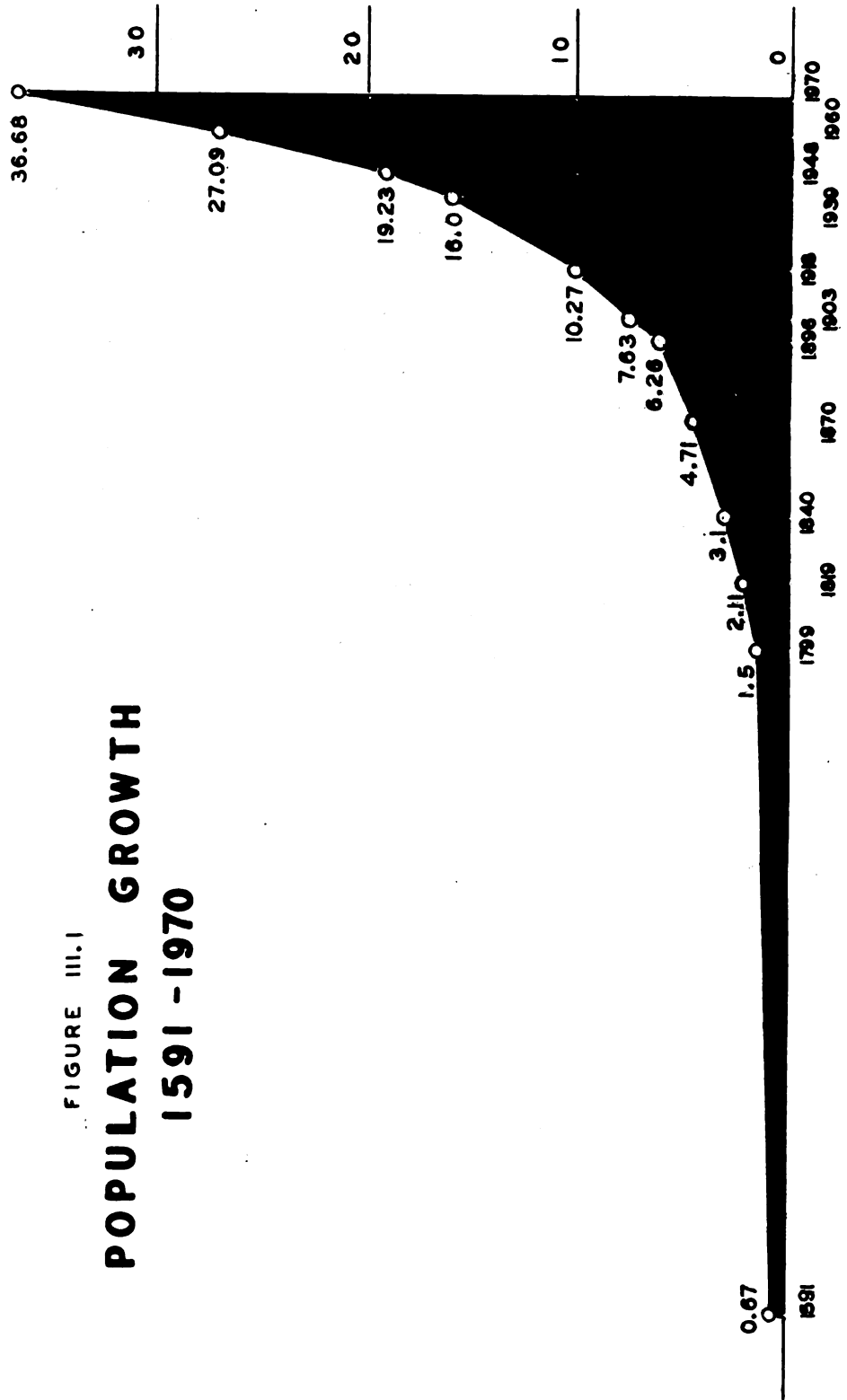
Source: Bureau of the Census and Statistics, Demography Division.

POPULATION

MILLION PERSONS

40

FIGURE III.1  
**POPULATION GROWTH**  
**1591 - 1970**



Growth of population is the sum of natural increase (births minus deaths) and net migration. Since migration, in or out of the country, has been relatively insignificant, natural increase has been the deciding factor in population growth. But while this seems to be a very valid observation, subsequent calculations of population growth owing to natural increase failed to support such a statement because registration of vital events in the country is still incomplete. However, the figures indicate a definite trend, which clearly shows that birth rate has been consistently high while death rate has been declining.

Regional and provincial rates of growth in the 1960-1970 period varied because of differences in rates of natural increase and of migration among the provinces.<sup>1/</sup> Comparing the provinces in order of rate of growth over this period (Table III.3), the population of Zikidnon showed a remarkable increase of 220,394 or 113.38 percent (roughly 11.3 percent per annum) of which 51.86 percent was due to natural increase and 48.14 percent to net migration. Rizal recorded an increase of 1,388,327 or 95.33 percent largely attributable to a net in-migration of 784,662; this was the only province where the rate of growth due to migration (56.52 percent) exceeded that due to natural increase (43.48 percent).

### Recent Trends in Urbanization

The level of Philippine urbanization from 1939 to 1970 is shown in Table III.4. From 1939 to 1948 the portion of national population residing in urban centers, accelerated by about seven percentage points from 19.9 percent to 26.6 percent. Between 1948 and 1960, a span of almost twelve years, the level of urbanization rose to 30.2 percent. By the year 1970, it gained by another 2 percent age point raising the number of urban population to 11,664,741 from 8,171,455 ten years before.

The provinces of Occidental Mindoro and Agusan registered an increase of 70.82 percent and 67.05 percent, respectively. Natural increase in Occidental Mindoro accounted for 65.48 percent while in Agusan it accounted for 66.82 percent. Davao ranked fifth with an increase of 582,913 persons or 65.27 percent with Zambales following closely behind with its increment of 129,592 persons or 60.72 percent. All provinces registered an increase in population during this period but while 22 provinces have gained population through natural increase and migration, the 33 others have gained population through natural increase and lost through migration.

In the 1970 population census, urban areas are those with the following characteristics:

1. In their entirety, all cities and municipalities which have a population density of at least 1,000 persons per square kilometer;
2. Poblaciones or central districts or municipalities and cities with a population density of at least 500 persons per square kilometer;
3. Poblaciones or central districts (not included in 1 & 2) regardless of population size which have the following:
  - (a) Street pattern, i. e. network of streets in either at parallel or at right-angle orientation;
  - (b) At least six establishments (commercial, manufacturing, recreational and/or personal services; and
  - (c) At least three of the following:
    - (1) A town hall, church or chapel with religious service at least once a month,
    - (2) A public plaza, park or cemetery,
    - (3) A market place or building where trading activities are carried on at least once a week, and

1/ Based on the report of Dr. Yun Kim, UN Expert on Population Analysis with the Bureau of the Census & Statistics, on "Net Internal Migration in the Philippines, 1960-1970." Calculations of net internal migration were based on the survival ratio method which made use of the following assumptions:

- 1) The national population is closed;
- 2) The specific mortality rates are the same for each state as for the nation;
- 3) The ratio of the degree of enumeration in any age-sex group in an area (i.e. the proportion which the enumerated population in any age-sex group bears to the true population) to that of the nation is the same for the same cohort in both censuses.

## POPULATION

Table III.3—FACTORS IN THE GROWTH OF POPULATION: 1960 - 1970

Region/Province	Population 1960	Natural Increase	Actual Increase	Net Migration	Population 1970
<b>Philippines</b>	<b>27,087,685</b>	<b>2,596,804</b>	<b>2,956,801</b>	<b>-3</b>	<b>36,684,486</b>
<b>I Manila &amp; Suburbs</b>					
Manila, City of	1,138,611	277,885	192,177	-85,708	1,330,788
<b>II Iloos &amp; Mt. Province</b>	<b>1,469,753</b>	<b>431,861</b>	<b>363,401</b>	<b>-68,460</b>	<b>1,831,154</b>
Abra	115,193	31,667	30,315	-1,352	145,508
Iloos Norte	287,333	70,122	56,094	-14,028	343,427
Iloos Sur	338,058	81,534	47,081	-34,453	385,139
La Union	293,330	87,879	80,352	-7,527	373,682
Mt. Province 1/	435,839	160,659	149,559	-11,100	585,398
<b>III Cagayan Valley</b>					
& Batanes	<b>1,035,750</b>	<b>394,638</b>	<b>426,973</b>	<b>32,335</b>	<b>1,462,723</b>
Batanes	10,309	2,938	1,089	-1,849	11,398
Cagayan	455,289	154,973	135,948	-19,025	581,237
Isabela	442,062	181,474	206,061	24,590	648,123
Nueva Viscaya	138,090	55,256	83,875	28,619	221,965
<b>IV Central Luzon</b>	<b>3,690,996</b>	<b>1,311,466</b>	<b>1,409,099</b>	<b>97,633</b>	<b>5,100,095</b>
Bataan	145,323	56,194	70,887	14,693	216,210
Bulacan	555,819	191,825	280,612	88,612	836,431
Nueva Ecija	608,362	229,671	242,932	13,261	851,294
Pampanga	617,259	251,919	290,016	38,097	907,275
Pangasinan	1,124,144	354,786	261,999	-92,787	1,386,143
Tarlac	426,647	147,459	133,061	-14,398	559,708
Zambales	213,442	79,612	129,592	49,980	343,034
<b>V Southern Luzon &amp; Island</b>	<b>4,231,973</b>	<b>1,592,720</b>	<b>2,595,404</b>	<b>1,002,684</b>	<b>6,827,377</b>
Batangas	681,414	215,154	244,894	31,740	926,308
Cavite	378,138	118,997	142,042	23,045	520,180
Laguna	472,064	167,317	227,672	60,355	699,736
Marinduque	114,586	40,785	29,523	-11,262	144,109
Occ. Mindoro	84,316	39,101	59,716	20,615	144,032
Oriental Mindoro	228,998	90,428	99,366	8,938	328,364
Palawan	162,669	66,787	73,966	7,179	236,635
Quezon	653,426	252,486	329,898	77,412	983,324
Rizal	1,456,362	603,665	1,388,327	784,662	2,844,689
<b>VI Bicol &amp; Masbate</b>	<b>2,362,707</b>	<b>904,942</b>	<b>604,174</b>	<b>-300,768</b>	<b>2,966,881</b>
Albay	514,980	196,036	159,001	-37,035	673,981
Camarines Mo	188,091	78,508	74,116	-4,392	262,207
Camarines Sur	819,565	293,234	128,871	-164,363	948,436
Catanduanes	156,329	51,135	5,973	-45,162	162,302
Masbate	335,971	149,197	156,937	7,740	492,908
Sorsogon	347,771	136,832	79,276	-57,556	427,047
<b>VII Western Visayas</b>	<b>3,209,963</b>	<b>1,013,829</b>	<b>575,445</b>	<b>-438,384</b>	<b>3,785,408</b>
Aklan	226,232	67,477	37,126	-30,351	263,358
Antique	238,405	72,600	50,767	-21,833	289,172
Capiz	315,079	104,779	78,962	-25,817	394,041
Iloilo	966,266	290,956	201,707	-89,249	1,167,973
Negros Occidental	1,332,323	429,855	171,459	-258,396	1,503,782
Romblon	131,658	48,162	35,424	-12,738	167,082
<b>VIII Eastern Visayas</b>	<b>4,563,768</b>	<b>1,448,150</b>	<b>850,360</b>	<b>-597,790</b>	<b>5,414,128</b>
Bohol	592,194	161,068	91,103	-69,965	683,297
Cebu	1,332,847	398,578	301,335	-97,243	1,634,182
Leyte 2/	1,172,972	389,507	189,079	-200,428	1,362,051
Negros Oriental	597,761	190,088	117,479	-72,609	715,240
Samar 3/	867,994	308,909	151,364	-157,545	1,019,358
<b>IX Northern Mindanao</b>	<b>2,111,291</b>	<b>861,390</b>	<b>905,574</b>	<b>44,184</b>	<b>3,016,865</b>
Agusan 4/	271,010	121,434	181,725	60,291	452,735
Bukidnon	194,368	114,294	220,394	106,100	414,762
Lanao del Norte	270,603	101,238	79,339	-21,899	349,942
Lanao del Sur	378,327	157,309	77,181	-80,128	455,508
Misamis Occidental 5/	248,371	84,662	71,484	-13,178	319,855
Misamis Oriental	388,615	144,868	138,054	-6,814	526,669
Surigao 6/	359,997	137,585	137,597	-188	497,394
<b>X Southern Mindanao</b>					
& Sulu	<b>3,272,873</b>	<b>1,359,923</b>	<b>1,674,194</b>	<b>314,271</b>	<b>4,947,067</b>
Cotabato 1/	1,029,119	445,465	572,998	127,533	1,602,117
Davao 8/	893,023	391,825	582,913	191,088	1,475,936
Sulu	326,898	114,817	98,719	-16,098	425,617
Zamboanga del Norte	281,429	118,211	127,950	9,739	409,379
Zamboanga del Sur	742,404	289,605	291,614	2,009	1,034,018

1/ Includes Benguet, Ifugao and Kalinga-Apayao

2/ Includes Southern Leyte

3/ " Eastern, Northern and Western Samar

4/ " Agusan del Norte and Agusan del Sur

5/ " Camiguin

6/ " Surigao del Norte and Surigao del Sur

1/ " South Cotabato

8/ " Davao del Norte, Davao del Sur and Davao Oriental

Source: Bureau of the Census and Statistics, Population Division.

(4) A public building like a school, hospital, puericulture, and health centers or library,

4. Barrios having at least 1,000 inhabitants which meet the condition set forth in (3) above and in which the occupation of the inhabitants is predominantly non-farming/fishing.

Areas which do not fall within the context of the above definitions are considered rural.

Table III.4.—NUMBER AND PERCENTAGE OF POPULATION IN URBAN AREAS:  
1939, 1948, 1960 AND 1970

Year	Total Population	Urban Population	
		Number	Per cent
1939	16,000,303	3,178,729	19.9
1948	19,234,182	5,116,217	26.6
1960	27,087,685	8,171,455	30.2
1970	36,684,486	11,664,741	31.8

Source: Bureau of the Census and Statistics, Population Division.

Table III.5 shows that in 1970 close to 32 percent of the Philippine population lived in urban areas, according to the census definition. The larger portion or 68 percent still lived in rural places. The degree of urbanization in the provinces, as measured by the portion classified as urban ranged from 100 percent in Manila to zero percent in Batanes. It may be stated at this point that Manila, although classified as a province and region for census purposes, is actually a city that serves not only as the chief industrial, commercial and educational center of the Philippines, but also as the hub of the country's political and administrative activities—hence its 100 percent urbanization. Batanes, on the other hand, is an island-province located far north which does not have places that satisfy the above characteristics of an urban area. With, almost one-third of the Philippine population already urbanized, only ten of the sixty-seven provinces have attained a certain level of urbanization, e.g., Manila with 100 percent urban; Rizal, 94.8 percent; Zambales, 50.63 percent; Bulacan, 47.90 percent; Cebu, 39.91 percent; Agusan del Norte, 36.44 percent; Negros Occidental, 33.45 percent; and Benguet, 32.08 percent. Of the remaining 57 provinces, 20 were more than 20 percent urbanized; these include, among others, Camarines Norte, Camarines Sur, Camiguin, Iloilo, Palawan, Pangasinan, Sorsogon, South Cotabato, and the two provinces of Surigao.



Table III.5—NUMBER AND PERCENTAGE OF THE POPULATION CLASSIFIED AS URBAN AND RURAL BY PROVINCE: 1970

Province	Total population	Urban		Rural	
		Number	Percentage	Number	Percentage
<b>PHILIPPINES</b>	<b>36,684,486</b>	<b>11,664,741</b>	<b>31.80</b>	<b>25,019,745</b>	<b>68.20</b>
Abra	145,508	26,280	18.06	119,228	81.94
Agusan del Norte	278,053	101,325	36.44	176,728	63.56
Agusan del Sur	174,682	33,006	18.89	141,676	81.11
Aklan	263,358	27,689	10.51	235,669	89.49
Albay	673,981	91,834	13.63	582,147	86.37
Antique	289,172	40,247	13.92	248,925	86.08
Bataan	216,210	42,230	19.53	173,980	80.47
Batanes	11,398	-	-	11,398	100.00
Batangas	926,308	135,667	14.65	790,641	85.35
Benguet	263,550	84,538	32.08	179,012	67.92
Bohol	683,297	97,337	14.25	585,960	85.75
Bukidnon	414,762	54,922	13.24	359,840	86.76
Bulacan	836,431	400,610	47.90	435,821	52.10
Cagayan	581,237	85,360	14.69	495,877	85.31
Camarines Norte	262,207	63,189	26.01	194,018	73.99
Camarines Sur	948,436	198,797	20.96	749,639	79.04
Camiguin	53,913	11,638	21.59	42,275	78.41
Capi	394,041	56,380	14.31	337,661	85.69
Catanduanes	162,302	28,625	17.64	133,677	82.36
Cavite	520,180	261,030	50.18	259,150	49.82
Cebu	1,634,182	652,200	39.91	981,982	60.09
Cotabato	1,136,007	165,741	14.59	970,266	85.41
Davao del Norte	442,543	87,190	19.70	355,353	80.30
Davao del Sur	785,398	242,549	30.88	542,849	69.12
Davao Oriental	247,995	47,319	19.08	200,676	80.92
Eastern Samar	271,000	66,805	24.65	204,195	75.35
Ifugao	92,487	6,961	7.53	85,526	92.47
Iloos Norte	343,427	83,025	24.18	260,402	75.82
Iloos Sur	385,139	64,349	16.71	320,790	83.29
Iloilo	1,167,973	329,115	28.18	838,858	71.82
Isabela	648,123	85,552	13.20	562,571	86.80
Kalinga-Apayao	136,249	10,473	7.69	125,776	92.31
La Union	373,682	46,341	12.40	327,341	87.60
Laguna	699,736	350,450	50.08	349,286	49.92
Lanao del Norte	349,942	32,114	9.18	317,828	90.82
Lanao del Sur	455,508	106,562	23.39	348,946	76.61
Leyte	1,110,626	241,588	21.75	869,038	78.25
Manila	1,330,788	1,330,788	100.00	-	-
Marinduque	144,109	17,973	12.47	126,136	87.53
Masbate	492,908	77,233	15.67	415,675	84.33
Misamis Occidental	319,855	49,497	15.47	270,358	84.53
Misamis Oriental	472,756	102,278	21.63	373,478	78.37
Mountain Province	93,112	2,930	3.15	90,182	96.85
Negros Occidental	1,503,782	502,999	33.45	1,000,783	66.55
Negros Oriental	715,240	97,703	13.66	617,537	86.34
Northern Samar	306,114	61,752	20.17	244,362	79.83
Nueva Ecija	851,294	186,247	21.88	665,047	78.12
Nueva Vizcaya	221,965	51,036	22.99	170,929	77.01
Occidental Mindoro	144,032	34,721	24.11	109,311	75.89
Oriental Mindoro	328,364	58,478	17.81	269,886	82.19
Palawan	236,635	46,521	19.66	190,114	80.34
Pampanga	907,275	288,130	31.76	619,145	68.24
Pangasinan	1,386,143	272,492	19.66	1,113,651	80.34
Quezon	983,324	279,891	28.46	703,433	71.54
Rizal	2,844,689	2,696,903	94.80	147,786	5.20
Romblon	167,082	20,903	12.51	146,179	87.49
Sorsogon	427,047	102,702	24.05	324,345	75.95
South Cotabato	466,110	137,667	29.54	328,443	70.46
Southern Leyte	251,425	40,695	16.19	210,730	83.81
Sulu	425,617	74,573	17.52	351,044	82.48
Surigao del Norte	238,714	54,188	22.70	184,526	77.30
Surigao del Sur	258,680	68,891	26.63	189,789	73.37
Tarlac	559,708	93,664	16.73	466,044	83.27
Western Samar	442,244	56,369	12.75	385,875	87.25
Zambales	343,034	173,687	50.63	169,347	49.37
Zamboanga del Norte	409,379	59,416	14.51	349,963	85.49
Zamboanga del Sur	1,034,018	160,376	15.51	873,642	84.49

Source: Bureau of the Census and Statistics, Population Division.

## Population of Chartered Cities

The population of all chartered cities for the census years 1948, 1960 and 1970 is shown in Table III.6. During the period 1948-60, the number of chartered cities increased from 21 to 31 and the proportion of the total population living in them rose correspondingly from 12.5 percent to 14.2 percent.

The trend toward an increased concentration of the population in the larger urban centers continued in the period 1960-70. In this ten-year interval, the number of chartered cities was twice as many as those existing in 1960. The number which now rose to 60 has a population of 7,555,470, representing 20.6 percent of the national total.

The percent of total population of each city in 1970 ranged from 3.60 percent for Manila to 0.02 percent, for Trece Martires. Manila's population numbered 1,330,788 distributed within its small area of 38.28 square kilometers. This is followed by Quezon City with 754,452 persons, or 2.06 percent; Davao, 392,473 or 1.07 percent; Cebu, 347,116 or 0.94 percent; and Caloocan, 274,453 or 0.75 percent.

While Manila is still the forerunner insofar as the total population of each city is concerned, the proportion of its population to the national total has shown a steady decrease over the years from 5.12 percent in 1948 to 4.20 percent in 1960 and finally to 3.60 percent in 1970. On the other hand, the proportion of the other cities mentioned above have shown gradual increases from one census year to another, as in the case of Quezon City which increased from 0.56 percent in 1948 to 1.47 percent in 1960 and then to 2.06 percent in 1970.

The tendency of Manila's population to decelerate in proportion to the total population is brought about by its smaller land area thus forcing its populace to migrate to nearby places. While it is true that thousands of people throng to the city during working or schooldays, majority of them are really migrant workers or students who are residing in the suburban areas of Caloocan, Quezon City, Pasay, Makati, and other neighboring towns of Rizal. If the present trend continues, which is very likely in the near future, cities with larger areas, will soon equal or even outnumber the population of Manila. There are about 17 cities which have shown this tendency, among them Angeles, Butuan, Cabanatuan, Cadiz, Cavite, Cotabato, Dipolog, Mandaue, and Roxas, in addition to the four cities already mentioned.

## Density of Population

Table III.7 shows the density of population in the different provinces for the census years 1939, 1948, 1960 and 1970. There were 122.3 persons per square kilometer in the Philippines in 1970 compared with 90.3 in 1960, 64.0 in 1948 and 56.3 in 1939.

The greatest gain in every censal period for the entire country, excluding Manila, was achieved by the province of Rizal—122.7 persons per square kilometer from 1939 to 1948, 421.3 between 1948 and 1960, and 746.5 during the period 1960 to 1970. Other provinces which have shown appreciable increases were Bulacan, Cavite, Cotabato, and Pampanga. Table III.8 gives a population density of the different cities of the Philippines for the census years 1948, 1960 and 1970.

## Sex and Age Distribution

The age and sex attributes of the population are of paramount importance because they are necessary in the determination of mortality and birth rates, school population, military training potential, manpower resources, voting population, conjugal status and others.

### Sex

The Philippine population in 1970 recorded an excess of females over males, which was a reversal of the findings of the other five censuses during the present century. Such excess may be attributed to the emigration of a larger number of male population to Guam, Hawaii, United States, Canada and other countries and to the rapid decline in mortality among females which is common in all countries which have low death rates. Another reason that could be advanced is the fact that population census was taken in May, at a time when males are reputedly migratory, being a summer vacation, thus allowing for errors in the counting of male population.

## POPULATION

TABLE 111.6 - POPULATION AND PERCENT DISTRIBUTION OF POPULATION BY CITY: 1948, 1960 AND 1970

City	Population			Percent of National Total		
	1970	1960	1948	1970	1960	1948
Totals, City Population	7,555,470	3,849,850	2,398,893	20.6	14.2	12.5
QUEZON CITY <sup>1/</sup>	754,452	397,990	111,165	a/	2.06	1.47
Angeles	134,544	75,900	37,558	.36	.28	.20
Bacolod	187,300	119,315	101,432	a/	.51	.44
Bago	71,653	58,834	56,693	.19	.22	.29
Baguio	84,538	50,436	29,262	a/	.23	.19
Bais	40,095	26,721	15,339	a/	.11	.10
Basilan	143,829	155,712	110,297	a/	.39	.57
Batangas	108,868	82,627	59,582	.29	.30	.31
Butuan	131,094	79,770	30,032	.35	.29	.16
Cabanatuan	99,890	69,580	48,548	.27	.26	.25
Cadiz	124,108	88,542	48,960	.34	.33	.25
Cagayan de Oro	123,319	68,274	51,501	a/	.35	.27
Calbayog	94,323	77,832	79,503	a/	.26	.29
Caloocan	274,453	145,523	54,729	.75	.54	.28
Canlaon	23,598	22,884	15,874	a/	.06	.08
Cavite	75,739	54,891	35,052	a/	.21	.18
Cebu	347,116	251,146	167,503	a/	.94	.87
Cotabato	61,184	37,439	14,579	a/	.17	.14
Dagupan	83,582	63,191	43,838	a/	.23	.23
Danao	47,662	32,826	26,461	.13	.12	.14
Dapitan	37,781	27,517	20,499	a/	.10	.11
Davao	392,473	225,712	111,263	a/	1.07	.83
Dipolog	46,368	32,236	22,801	a/	.13	.12
Dumaguete	52,000	35,282	24,838	a/	.14	.13
General Santos	85,861	52,824	12,731	.23	.20	.07
Gingoog	65,522	52,677	30,699	.18	.19	.16
Iligan	104,493	53,433	27,515	a/	.28	.22
Iloilo	209,738	151,266	110,122	a/	.57	.57
Iriga	77,382	75,439	42,049	.21	.28	.22
La Carlota	38,321	56,772	45,789	.10	.21	.24
Laosag	61,727	50,198	44,406	.17	.18	.23
Lapu-Lapu	69,268	48,546	37,280	a/	.19	.19
Legaspi	84,090	60,593	47,171	a/	.23	.22
Lipa	93,971	64,239	46,928	a/	.26	.24
Lucena	77,006	49,264	33,092	.21	.18	.17
Mandaue	58,579	29,281	19,068	.16	.11	.10
Manila	1,330,788	1,138,611	983,906	a/	3.60	4.20
Marawi	55,708	27,049	19,657	a/	.15	.10
Naga	79,846	55,506	56,238	a/	.22	.20
Olongapo	107,785	45,330	14,090	a/	.29	.17
Ormoc	84,563	62,764	57,400	a/	.23	.23
Oroquieta	38,575	29,477	22,877	a/	.10	.11
Ozamis	64,643	44,091	35,262	a/	.17	.16
Pagadian	57,615	41,331	16,619	.16	.15	.09
Palayan	8,382	3,236	(c)	.02	.01	(c)
Passay	206,283	123,673	88,728	a/	.56	.49
Puerto Princesa	37,774	21,949	11,161	.10	.08	.06
Roxas	67,518	49,326	32,353	.18	.18	.17
San Carlos <sup>2/</sup>	90,058	124,756	92,250	.24	.46	.48
San Carlos <sup>2/</sup>	84,333	64,315	51,890	.23	.24	.27
San Jose	70,314	38,078	30,059	a/	.19	.14
San Pablo	105,517	70,680	50,435	a/	.25	.26
Silay	69,200	60,324	35,570	a/	.19	.22
Tacloban	76,531	53,551	45,421	a/	.21	.20
Tagaytay	10,907	7,203	5,233	a/	.03	.03
Tagbilaran	33,005	20,250	16,051	.09	.07	.08
Tangub	30,916	21,101	20,353	.08	.08	.11
Toledo	67,727	63,881	39,225	.18	.24	.20
Trece Martires	6,522	4,422	1,868	a/	.02	.01
Zamboanga	199,901	131,489	103,317	a/	.54	.54

a/ Cities in 1948

<sup>1/</sup> Capital of the Philippines

b/ Additional cities by 1960

<sup>2/</sup> City of Negros Occidental

(c) Data not available

<sup>3/</sup> City of Pangasinan

Source: Bureau of the Census and Statistics, Population Division.

## POPULATION DENSITY

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Table III.7- LAND AREA AND DENSITY OF POPULATION BY PROVINCE, CENSUS YEARS: 1939, 1948, 1960 and 1970

PROVINCE	Land Area Sq. Km.	Population							
		1970		1960		1948		1939	
		Total	Density (Per sq. km.)	Total	Density (Per sq. km.)	Total	Density (Per sq. km.)	Total	Density (Per sq. km.)
<b>PHILIPPINES</b>	<b>300,000.0</b>	<b>26,648,486</b>	<b>122.3</b>	<b>27,087,995</b>	<b>90.2</b>	<b>19,189,182</b>	<b>64.0</b>	<b>16,885,219</b>	<b>56.2</b>
Abra	3,975.6	145,508	36.6	115,193	29.0	86,600	21.8	87,780	22.1
Agusan del Norte	2,590.3	278,053	107.3	177,333	68.5	126,448	10.9	99,023	8.6
Agusan del Sur	8,965.5	174,682	19.5	93,677	10.4	196,982	108.4	176,625	97.2
Aklan	1,817.9	263,358	144.9	226,232	124.4	394,694	154.6	333,920	130.8
Albay	2,552.6	673,981	264.0	514,890	210.7	233,506	92.6	199,414	79.1
Antique	2,522.0	289,172	114.7	238,405	94.5	92,901	67.7	85,538	62.3
Bataan	1,373.0	216,210	157.5	145,323	105.8	10,705	51.1	9,512	45.4
Batanes	209.3	11,398	54.5	10,309	49.3	510,224	161.2	442,034	139.6
Batangas	3,165.8	926,308	292.6	681,414	215.2	183,657	69.2	134.4	491,608
Benguet	2,655.4	263,550	99.3	183,657	69.2	63,470	7.7	57,561	6.9
Bohol	4,117.3	683,297	166.0	592,194	143.8	411,382	154.0	332,807	124.6
Bukidnon	8,293.8	414,762	50.0	194,368	23.4	311,088	34.6	292,270	32.5
Bulacan	2,672.0	836,431	313.0	555,819	208.0	103,702	49.1	98,320	46.5
Cagayan	9,002.7	581,237	64.6	445,289	49.5	553,691	105.1	385,695	73.2
Camarines Norte	2,112.5	262,207	124.1	188,091	89.0	119.7	11.9	228,660	86.8
Camarines Sur	5,266.8	944,436	180.1	819,565	155.6	112,121	74.2	98,545	65.2
Candagun	229.8	53,913	234.6	717	31.8	262,550	203.9	238,581	185.3
Capiz	2,633.2	394,041	149.6	315,079	119.7	1,123,107	220.7	1,068,079	209.9
Catanduanes	1,511.5	162,302	107.4	156,329	103.4	439,669	18.5	298,935	12.6
Cavite	1,287.5	520,180	404.0	378,138	293.7	262,550	203.9	238,581	185.3
Cebu	5,088.4	1,634,182	321.2	1,332,847	261.9	1,123,107	220.7	1,068,079	209.9
Cotabato	7,355.6	1,136,007	154.4	734,360	43.2	439,669	18.5	298,935	12.6
Davao del Norte	8,266.6	442,543	53.5	262,889	31.8	364,854	18.5	292,600	14.9
Davao del Sur	6,240.6	785,398	125.9	497,541	79.7	364,854	18.5	292,600	14.9
Davao Oriental	5,164.6	247,995	48.0	132,593	25.7	364,854	18.5	292,600	14.9
Eastern Samar	4,339.6	271,000	62.5	237,747	54.8	-	-	-	-
Ifugao	2,517.8	92,487	36.7	76,788	30.5	-	-	-	-
Iloilo	3,399.3	343,427	101.0	287,333	84.5	251,455	74.0	237,586	69.9
Iloilo Norte	2,579.6	385,139	149.3	338,058	131.1	276,278	107.1	271,532	105.3
Iloilo Sur	5,324.0	1,167,973	219.4	966,266	181.5	816,382	153.3	744,022	139.7
Isabela	10,664.6	648,123	60.8	442,062	41.5	264,495	24.8	219,864	20.6
Kalinga-Apayao	7,047.6	136,249	19.3	89,528	12.7	-	-	-	-
La Union	1,483.1	373,682	250.3	293,330	196.5	237,340	159.0	207,701	139.1
Laguna	1,799.7	699,736	397.6	472,064	268.3	321,247	182.6	279,505	158.8
Marikina	3,092.0	349,942	113.2	270,603	87.5	131,606	42.6	99,427	32.2
Marikina del Norte	3,872.9	455,508	117.6	378,327	97.7	212,312	54.8	144,010	37.2
Leyte	6,268.3	1,110,626	177.2	963,364	146.6	1,006,891	125.8	915,853	114.4
Manila	38.3	1,330,788	34,746.4	1,138,611	29,728.7	938,906	25,689.5	623,492	16,279.2
Marikina	999.2	144,109	144.1	114,586	119.5	85,828	89.5	81,768	85.2
Masbate	4,047.7	492,908	121.8	335,971	83.0	211,113	52.2	182,483	45.1
Misamis Occidental	1,939.3	319,855	165.0	248,371	128.1	207,575	107.0	210,057	108.3
Misamis Oriental	3,570.0	472,756	132.4	343,898	96.5	369,671	103.5	313,812	88.2
Mountain Province	2,097.3	93,112	44.4	85,866	40.9	278,120	13.4	296,874	14.4
Negros Occidental	7,926.1	1,503,782	189.7	1,332,323	169.1	1,038,758	131.1	824,858	104.1
Negros Oriental	5,745.8	715,240	124.5	597,761	104.0	443,461	77.2	394,680	68.7
Northern Samar	3,479.6	306,114	88.0	261,550	75.2	-	-	-	-
Nueva Ecija	5,284.3	851,294	161.1	608,362	115.1	467,769	88.5	416,762	78.9
Nueva Vizcaya	6,961.1	221,965	31.9	138,090	19.8	82,718	11.9	78,505	11.3
Occidental Mindoro	5,879.8	144,032	24.5	84,316	14.3	43,149	7.3	39,039	6.6
Oriental Mindoro	4,364.7	328,364	75.2	228,998	52.5	124,556	28.5	92,530	21.2
Palawan	14,896.3	236,635	15.9	162,669	10.9	106,269	7.1	93,673	6.3
Pampanga	2,180.7	907,275	416.0	617,259	283.1	416,583	191.0	375,281	172.1
Pangasinan	5,368.2	1,386,143	258.2	1,124,144	209.4	920,491	171.5	742,475	138.8
Quezon	11,946.2	983,324	82.3	653,426	54.7	416,719	34.9	358,553	30.0
Rizal	1,859.6	2,844,689	1,529.7	1,456,362	783.2	673,060	361.9	444,805	239.2
Romblon	1,355.9	167,082	123.2	131,658	97.1	108,817	80.3	99,367	73.3
Sorsogon	2,141.4	427,047	199.4	347,771	162.4	291,138	136.0	247,653	115.7
South Cotabato	16,441.4	466,110	28.3	294,759	17.9	-	-	-	-
Southern Leyte	1,734.8	251,425	144.9	209,608	120.8	-	-	-	-
Sulu	2,687.8	425,617	158.4	326,893	121.6	240,826	89.6	247,117	91.9
Surigao del Norte	2,739.0	238,714	87.2	194,981	71.2	264,952	36.3	225,895	31.0
Surigao del Sur	4,552.2	258,680	56.8	164,016	36.2	264,952	36.3	225,895	31.0
Tarlac	3,053.4	599,708	196.4	426,647	139.7	327,018	107.1	264,379	86.6
Western Samar	5,609.4	442,244	79.0	368,697	64.6	757,212	56.4	546,306	40.7
Zambales	3,714.4	343,034	92.4	213,442	57.5	138,536	37.3	106,945	28.8
Zamboanga del Norte	6,075.2	409,379	67.4	281,429	46.3	167,700	27.6	138,849	22.9
Zamboanga del Sur	9,922.1	1,034,018	104.2	742,404	74.8	354,241	35.7	217,135	21.9

Source: Bureau of the Census and Statistics, Population Division.

## POPULATION

Table III. 7a- LAND AREA AND POPULATION DENSITY BY REGION CENSUS YEARS: 1939, 1948, 1960 and 1970

REGION	Land Area Sq. Km.	Population							
		1970		1960		1948		1939	
		Total	Density (Per sq. km.)	Total	Density (Per sq. km.)	Total	Density (Per sq. km.)		
PHILIPPINES	300,000.0	26,684,486	122.2	27,087,295	90.2	19,189,182	64.0	16,885,219	56.2
I Manila & Suburbs	38.3	1,330,788	34,746.4	1,138,611	29,728.7	938,906	25,689.5	623,432	16,279.2
II Ilocos & Mt. Province	25,865.7	1,833,154	71.1	1,469,753	57.0	1,129,793	43.8	1,101,473	42.7
III Cagayan Valley and Batanes	26,837.7	1,462,723	54.5	1,035,750	38.6	669,006	24.9	600,151	22.4
IV Central Luzon	23,646.0	5,100,095	215.7	3,690,996	156.1	2,774,680	116.1	2,324,187	98.3
V Southern Luzon & Islands	46,118.8	6,827,377	48.0	4,231,973	91.8	2,543,602	55.2	2,070,488	44.9
VI Bicol & Masbate	17,632.5	2,966,881	168.3	2,362,617	134.0	1,666,499	94.5	2,231,536	126.6
VII Western Visayas	21,579.1	3,785,408	175.4	3,209,963	148.8	2,639,334	122.3	2,272,946	105.3
VIII Eastern Visayas	36,383.2	5,434,128	148.0	4,563,768	125.4	3,884,078	147.2	3,416,525	93.9
IX Northern Mindanao	39,844.8	3,016,865	75.7	2,111,291	53.0	1,376,034	34.5	1,049,785	26.3
X Southern Mindanao & Sulu	62,153.9	4,947,067	79.6	3,272,873	52.7	1,567,290	25.2	1,194,636	19.2

Source: Bureau of the Census and Statistics, Population Division.

## POPULATION DENSITY

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TABLE III.8-LAND AREA AND DENSITY OF THE POPULATION BY CITY:  
CENSAL YEARS 1948, 1960 AND 1970

C i t y	Land Area (Sq. km.)	Density per square kilometer		
		1970	1960	1948
QUEZON CITY <sup>1/</sup>	166.2	4,539.4	2,394.6	668.9
Angeles	60.3	2,231.2	1,258.7	622.9
Dacolod	156.1	1,199.9	764.4	649.8
Bago	402.1	178.2	146.3	141.0
Baguio	48.9	1,728.8	1,031.4	598.4
Bais	316.9	126.5	84.3	48.4
Basilan	1,327.2	108.4	117.3	83.1
Batangas	283.0	384.7	232.0	210.5
Butuan	526.3	249.1	151.6	57.1
Cabanatuan	192.7	518.4	361.1	251.9
Cadiz	516.5	240.3	171.4	94.8
Cagayan de Oro	412.8	310.8	165.4	124.8
Calbayog	903.0	104.5	86.2	88.0
Caloocan	55.8	4,918.5	2,607.9	980.8
Canlaon	160.7	146.8	142.4	98.8
Cavite	11.8	6,418.6	4,561.8	2,970.5
Cebu	230.9	1,235.7	894.1	526.3
Cotabato	176.0	347.6	213.1	82.8
Dagupan	37.2	2,246.8	1,698.7	1,178.4
Danao	107.3	444.2	305.9	246.6
Dapitan	215.0	175.7	128.0	95.3
Davao	2,211.3	177.5	102.1	50.3
Dipolog	220.0	210.8	146.5	103.6
Dumaguete	55.8	931.9	632.3	445.1
General Santos	795.5	107.9	66.4	16.0
Gingoog	404.6	161.9	130.2	75.9
Iligan	730.5	143.0	80.0	37.7
Iloilo	56.0	3,745.3	2,701.2	1,966.5
Iriga	119.6	647.0	630.8	351.6
La Carlota	137.3	279.1	413.5	333.5
Laosag	107.5	574.2	467.0	413.1
Lapu-Lapu (Opon)	58.1	1,192.2	835.6	641.7
Legazpi	153.7	547.1	394.2	306.9
Lipa	209.4	448.8	306.8	224.1
Lucena	68.5	1,124.2	719.2	483.1
Mandaue	11.7	5,006.8	2,502.6	1,629.7
Manila	38.3	34,746.4	29,728.7	25,689.5
Marawi	22.6	2,465.0	1,196.9	869.8
Naga	77.5	1,030.3	716.2	725.6
Olongapo	103.3	1,043.4	438.8	136.4
Ormoc	464.3	182.1	135.2	123.6
Oroquieta	134.9	197.9	151.2	117.2
Ozamiz	144.2	448.3	305.8	244.5
Pagadian	378.8	152.1	109.1	43.9
Palayan	35.6 <sup>2/</sup>	235.4	90.9	-
Psay	13.9	14,840.5	9,544.8	6,383.3
Puerto Princesa	2,106.7	17.9	10.4	5.3
Roxas	102.0	663.2	483.6	317.2
San Carlos <sup>3/</sup>	451.3	199.6	276.4	204.4
San Carlos <sup>4/</sup>	166.4	506.8	386.5	311.8
San Jose	180.5	389.6	211.0	166.5
San Pablo	214.0	493.1	330.3	235.7
Silay	214.8	322.2	280.8	165.6
Tacloban	100.9	758.5	530.7	450.2
Tagaytay	74.0	147.4	97.3	70.7
Tagbilaran	30.3	1,089.3	668.3	529.7
Tangub	119.2	259.4	177.0	170.7
Toledo	174.5	388.1	366.1	224.8
Trece Martires	39.1	166.8	113.1	47.8
Zamboanga	1,414.7	141.3	92.9	73.0

<sup>1/</sup> Capital of the Philippines.<sup>3/</sup> City of Negros Occidental.<sup>2/</sup> Area tentative due to amendment of<sup>4/</sup> City of Pangasinan.

R.A. No. 4475.

Source: Bureau of the Census and Statistics, Population Division.



<u>Census Year</u>	<u>Proportion of each sex in every 100 persons</u>	
	<u>Males</u>	<u>Females</u>
1903	50.04	49.96
1918	50.20	49.80
1939	50.41	49.59
1948	50.18	49.82
1960	50.44	49.56
1970	49.75	50.25

Source: Bureau of the Census and Statistics, Population Division.

A breakdown of the data by province (Table III.9) indicates that in 1970 Palawan ranked first in the ratio of male to female inhabitants with 109.7 males for every 100 females. This is followed by several Mindanao provinces such as Davao del Norte with 109.5; Agusan del Sur, 105.9; Bukidnon and Davao Oriental, 105.0; Lanao del Sur, 104.5; and South Cotabato, 104.4. Thus, in the provincial picture, Mindanao provinces take the lead among the provinces having more male inhabitants per 100 females, which maybe partly due to the large influx of male immigrants to these places.

For provinces where females outnumbered the males, a total of 29 is listed in 1970 as compared with 17 in 1960 and 23 in 1948. The provinces which listed an equal number of males and females in 1970 are Batanes, Camiguin, Kalinga-Apayao, Marinduque, and Tarlac.

## Age

Recent trends in vital statistics have had a considerable effect on the age composition of the Filipino people. A steady high birth rate together with a declining death rate among children added more than three million to the number of persons under 15 years of age in 1970 compared with 1960, or an increase of 27.44 percent. The proportion of this group, however, to the total population decreased from 45.96 percent to 43.11 percent in the ten-year period. The population of working age—those of 15 to 64 years of age increased more rapidly at 39.84 percent in the decade, and the relative proportion of this group went up from 51.58 percent to 53.40 percent. The proportion of persons 65 years of age or over in 1970 also increased to 3.50 percent compared with 2.73 percent in 1960.

Table III.10 shows Philippine population classified by single years of age and by sex for the census years 1960 and 1970, while Fig. III.2 shows the percent distribution of male and female population by five-year age group for the census years 1939, 1948, 1960 and 1970. The provincial population by specified age group is given for 1970 in Table III.11, and the regional population, in Table III.11a.

## SEX DISTRIBUTION OF POPULATION

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Table III.9.—SEX DISTRIBUTION AND SEX RATIO OF THE POPULATION BY PROVINCE, CENSUS YEARS 1948, 1960 AND 1970

(In thousands)

Province	1948		Male to 100 Female	1960		Male to 100 Female	1970		Male to 100 Female
	Male	Female		Male	Female		Male	Female	
<b>PHILIPPINES</b>	<b>9,651</b>	<b>9,583</b>	<b>100.7</b>	<b>13,663</b>	<b>13,425</b>	<b>101.8</b>	<b>18,250</b>	<b>18,434</b>	<b>99.0</b>
Abra	43	44	97.7	58	57	101.8	72	74	97.3
Agusan del Norte	66	61	108.2	140	131	106.9	140	138	101.5
Agusan del Sur	...	...	...	...	...	...	90	85	105.9
Aklan	...	...	...	111	115	96.5	128	135	94.8
Albay	300	195	102.6	261	234	102.8	340	324	101.8
Antique	116	127	99.2	118	121	97.5	141	149	94.6
Bataan	47	46	102.2	74	71	104.2	109	108	100.9
Batanes	5	6	83.3	5	5	100.0	6	6	100.0
Batangas	253	257	98.4	358	344	98.3	454	472	96.2
Benguet	...	...	...	...	...	...	131	133	98.5
Bulacan	270	283	95.4	289	303	95.4	334	350	95.4
Bukidnon	33	30	110.0	102	93	109.7	112	102	105.0
Bulacan	203	208	97.6	276	280	98.6	406	430	94.4
Cagayan	196	155	100.7	226	220	102.7	293	289	101.4
Comarinas Norte	54	90	108.0	98	91	107.7	134	128	104.7
Comarinas Sur	280	274	102.2	419	400	104.8	476	473	100.6
Comoguin	...	...	...	...	...	...	27	27	100.0
Copla	216	226	95.6	197	198	99.4	191	203	94.1
Cotabato	97	55	103.6	80	76	105.3	82	80	102.5
Cavite	129	133	97.0	188	190	98.9	297	264	97.4
Cebu	449	475	95.5	454	479	96.3	797	837	95.2
Cotabato	228	211	108.1	543	486	111.7	581	555	104.7
Davao del Norte	...	...	...	...	...	...	231	211	109.5
Davao del Sur	194	170	114.1	469	424	110.6	399	386	103.4
Davao Oriental	...	...	...	...	...	...	127	121	105.0
Eastern Samar	366	371	104.0	444	424	104.7	137	134	102.2
Irigayon	...	...	...	...	...	...	45	47	95.7
Ilocos Norte	119	132	90.2	140	147	95.2	167	176	94.9
Ilocos Sur	130	147	88.4	164	174	94.3	187	198	94.4
Iloilo	402	414	97.1	478	488	98.0	573	595	96.3
Izabela	135	130	103.9	226	216	104.6	329	319	103.1
Kalinga-Apayao	...	...	...	...	...	...	68	68	100.0
La Union	115	123	93.5	144	149	96.6	183	191	95.8
Laguna	160	161	99.4	238	235	101.3	344	355	96.9
Laos del Norte	185	199	116.4	140	131	106.9	176	173	101.7
Laos del Sur	...	...	...	...	...	...	233	223	104.5
Leyte	302	305	99.4	390	383	101.2	597	554	100.5
Manila	496	488	101.6	549	589	93.2	642	689	93.2
Marikina	43	43	100.0	98	97	101.8	72	72	100.0
Masbate	107	104	102.9	170	166	102.4	247	246	100.4
Misamis Occidental	106	102	103.9	125	123	101.6	159	160	99.4
Misamis Oriental	188	181	103.9	199	190	104.7	238	235	101.3
Mountain Province	139	140	99.3	221	215	102.8	46	47	97.9
Negros Occidental	536	503	106.6	683	650	105.1	745	728	98.3
Negros Oriental	222	221	100.5	302	295	102.4	396	360	98.9
Northern Samar	...	...	...	...	...	...	155	152	102.0
Nueva Ecija	232	236	98.3	305	303	100.7	424	427	99.3
Nueva Viscaya	41	42	97.6	70	68	102.9	113	109	103.7
Occidental Mindoro	87	81	107.4	44	40	110.0	74	70	105.7
Oriental Mindoro	...	...	...	118	111	106.3	166	162	102.5
Palaos	55	51	107.8	87	75	115.0	124	113	109.7
Pangasinan	208	209	99.5	308	309	99.7	449	458	98.0
Pangasinan	541	469	96.2	559	566	98.8	685	701	97.7
Quezon	213	204	104.4	326	318	105.7	494	489	101.0
Rizal	326	338	99.4	711	745	95.4	1,386	1,457	95.0
Rosillon	53	56	94.6	65	66	98.5	82	85	96.5
Sarangani	148	143	103.5	180	168	107.1	227	210	103.3
South Cotabato	...	...	...	...	...	...	238	228	104.4
Southern Leyte	...	...	...	...	...	...	126	125	100.8
Sulu	121	121	100.8	167	160	104.4	210	216	97.2
Surigao del Norte	133	131	101.5	181	179	101.1	118	120	98.3
Surigao del Sur	...	...	...	...	...	...	130	129	100.8
Tarlac	163	164	99.4	214	212	100.9	280	280	100.0
Western Samar	...	...	...	...	...	...	224	218	102.8
Zambales	70	68	102.9	107	107	100.0	170	173	98.3
Zamboanga del Norte	270	251	107.6	144	137	105.1	205	204	100.5
Zamboanga del Sur	...	...	...	386	394	108.4	518	516	100.4

/ Includes data of Agusan del Sur.

/ " " " South Cotabato.

/ " " " Davao del Norte and Davao Oriental.

/ " " " Northern and Western Samar.

/ " " " Lao del Sur.

/ " " " Southern Leyte.

/ Includes data of Comoguin.

/ " " " Benguet, Ifugao and Kalinga-Apayao.

/ " " " Oriental Mindoro.

/ " " " Surigao del Sur.

/ " " " Zamboanga del Sur.

Source: Bureau of the Census and Statistics.

## POPULATION

TABLE VII-10 - PHILIPPINE POPULATION BY SEX, BY SINGLE YEARS OF AGE: 1960 and 1970

Age	Both sexes				Male				Female			
	Number		Per cent of total population		Number		Per cent of total population		Number		Per cent of total population	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
All Ages	27,087,685	36,590,068	100.00	100.00	13,662,863	18,187,924	50.44	49.71	13,424,816	18,402,144	49.56	50.29
Under 1 year	786,464	1,090,332	2.90	2.98	404,391	562,934	1.49	1.54	382,073	527,398	1.41	1.44
1	888,180	1,267,284	3.28	3.46	458,772	648,448	1.69	1.77	429,408	618,836	1.59	1.69
2	963,290	1,297,324	3.56	3.55	495,005	660,306	1.83	1.81	468,125	637,018	1.73	1.74
3	969,309	1,237,498	3.58	3.38	499,801	635,957	1.85	1.74	469,508	601,541	1.73	1.64
4	965,232	1,178,590	3.56	3.22	495,989	607,023	1.83	1.66	469,243	571,527	1.73	1.56
5	957,698	1,208,668	3.54	3.30	496,723	629,237	1.84	1.72	460,975	579,431	1.70	1.58
6	928,673	1,101,588	3.43	3.01	480,605	568,597	1.78	1.55	448,068	532,991	1.65	1.46
7	938,899	1,104,253	3.47	3.02	483,716	570,852	1.79	1.56	455,183	533,401	1.68	1.46
8	841,636	1,047,441	3.11	2.86	434,085	537,364	1.60	1.47	407,551	510,077	1.51	1.39
9	702,492	942,067	2.60	2.57	359,437	483,632	1.33	1.32	343,055	458,435	1.27	1.25
10	841,356	962,312	3.11	2.63	436,267	497,783	1.61	1.36	405,089	464,529	1.50	1.27
11	581,400	769,917	2.15	2.11	298,417	390,601	1.10	1.07	282,983	379,316	1.05	1.04
12	796,786	962,700	2.94	2.63	417,420	498,857	1.54	1.36	379,366	463,843	1.40	1.27
13	619,293	790,562	2.29	2.16	313,336	394,267	1.16	1.08	305,957	396,295	1.13	1.08
14	596,592	813,146	2.20	2.22	300,552	406,509	1.11	1.11	296,040	406,637	1.09	1.11
15	565,714	756,387	2.09	2.07	288,338	375,881	1.07	1.03	277,376	380,506	1.02	1.04
16	566,942	774,786	2.09	2.12	275,115	362,845	1.01	.99	291,827	411,941	1.08	1.13
17	538,891	712,894	1.99	1.95	268,047	340,269	.99	.93	270,844	372,625	1.00	1.02
18	651,318	794,181	2.41	2.17	318,484	366,800	1.18	1.00	332,834	427,381	1.23	1.17
19	491,441	636,168	1.82	1.74	234,775	287,132	.87	.79	256,666	349,036	.95	.95
20	565,801	762,083	2.09	2.08	262,698	343,319	.97	.94	303,103	418,764	1.12	1.14
21	494,895	668,583	1.83	1.83	245,129	311,989	.91	.85	249,766	356,594	.92	.98
22	515,823	699,309	1.91	1.91	256,339	333,170	.95	.91	259,484	366,139	.96	1.00
23	456,892	641,583	1.69	1.75	223,823	303,485	.83	.83	233,069	338,098	.86	.92
24	425,212	591,891	1.57	1.62	206,193	281,653	.76	.77	219,019	310,238	.81	.85
25	522,203	688,911	1.93	1.88	253,455	334,611	.94	.91	268,748	354,300	.99	.97
26	358,549	540,296	1.32	1.48	174,089	260,132	.64	.71	184,460	280,164	.68	.77
27	376,221	543,819	1.39	1.49	188,224	277,918	.70	.76	188,007	265,901	.69	.73
28	395,764	619,488	1.46	1.69	191,265	304,261	.71	.83	204,501	315,227	.75	.86
29	300,610	479,770	1.11	1.31	145,335	243,350	.54	.66	155,275	236,420	.57	.65
30	535,924	696,542	1.98	1.91	258,580	350,356	.96	.96	277,344	346,186	1.02	.95
31	222,086	364,481	0.82	1.00	112,209	185,846	.41	.51	109,877	178,635	.41	.49
32	318,481	481,572	1.18	1.32	157,820	247,927	.58	.68	160,661	233,645	.60	.64
33	266,560	380,423	0.91	1.04	121,778	193,879	.45	.53	124,442	186,544	.46	.51
34	233,700	357,433	0.86	.98	114,591	176,520	.42	.48	119,139	180,913	.44	.50
35	401,936	514,266	1.48	1.41	197,546	263,663	.73	.72	204,390	250,603	.75	.69
36	242,659	356,668	0.90	.98	117,323	181,761	.44	.44	125,336	174,907	.46	.48
37	242,462	343,361	0.90	.94	121,948	181,439	.45	.50	120,514	161,922	.45	.44
38	316,210	394,644	1.17	1.08	152,808	199,729	.51	.55	163,402	194,915	.60	.53
39	225,207	291,530	0.83	.80	112,943	145,868	.42	.40	112,264	145,662	.41	.40
40	434,156	481,098	1.60	1.31	211,245	236,018	.78	.64	222,911	245,080	.82	.67
41	126,632	199,786	.55	0.47	64,525	98,938	.24	.27	62,107	100,848	.23	.28
42	217,861	311,858	.85	0.81	110,127	158,174	.41	.43	107,734	153,684	.40	.42
43	169,167	243,856	.67	0.62	84,441	117,134	.31	.32	84,726	126,722	.31	.35
44	151,142	200,229	.55	0.56	76,055	95,513	.28	.26	75,087	104,716	.28	.20
45	319,118	365,544	1.00	1.18	157,849	174,916	.58	.58	161,269	190,628	.60	.52
46	160,329	212,346	.58	0.59	81,469	100,059	.30	.27	78,860	112,287	.29	.31
47	160,855	205,924	.56	0.60	83,123	100,090	.31	.27	77,732	105,834	.29	.29
48	237,287	285,243	.78	0.88	120,422	131,702	.45	.36	116,865	153,541	.43	.42
49	155,094	209,216	.57	0.57	81,775	100,504	.30	.27	73,319	108,712	.27	.30
50	313,636	378,408	1.04	1.16	155,186	170,514	.57	.47	158,450	207,894	.59	.57
51	78,534	137,305	.37	0.29	42,336	66,803	.16	.18	36,198	70,502	.13	.19
52	128,935	208,840	.57	0.48	68,322	99,456	.25	.27	60,613	109,384	.23	.30
53	93,279	164,036	.45	0.35	50,116	77,750	.19	.21	43,163	86,286	.16	.24
54	95,715	182,692	.50	0.60	49,394	87,103	.18	.24	46,321	95,589	.17	.26
55	163,093	248,666	.68	0.60	81,086	112,969	.30	.31	82,007	135,697	.30	.37
56	87,764	187,766	.51	0.32	46,480	92,227	.17	.25	41,274	95,539	.15	.26
57	71,828	151,318	.41	0.27	38,297	73,245	.14	.20	33,531	78,073	.13	.21
58	93,049	208,695	.57	0.34	46,419	98,951	.17	.27	46,630	109,744	.17	.30
59	72,206	129,154	.35	0.27	40,112	63,475	.15	.17	32,094	65,679	.12	.13
60	275,436	330,596	.90	1.02	147,073	154,348	.54	.42	128,363	176,248	.48	.48
61	31,299	80,864	.22	0.12	17,837	40,394	.07	.11	13,462	40,470	.05	.11
62	49,634	128,098	.35	0.19	26,479	64,619	.10	.18	23,155	63,479	.09	.17
63	40,154	108,353	.30	0.15	21,648	55,039	.08	.15	18,506	53,314	.07	.15
64	34,381	86,607	.24	0.13	18,749	43,450	.07	.12	15,632	43,157	.06	.12
65	102,440	190,576	.52	0.38	48,458	88,441	.18	.24	53,982	102,135	.20	.28
66	26,445	64,520	.18	0.10	14,016	32,484	.05	.09	12,429	32,036	.05	.09
67	35,311	77,513	.21	0.13	19,209	39,314	.07	.11	16,102	38,199	.06	.10

## AGE AND SEX DISTRIBUTION OF POPULATION

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Table III.10—PHILIPPINE POPULATION BY SEX, BY SINGLE YEARS OF AGE: 1960 AND 1970 - Continued

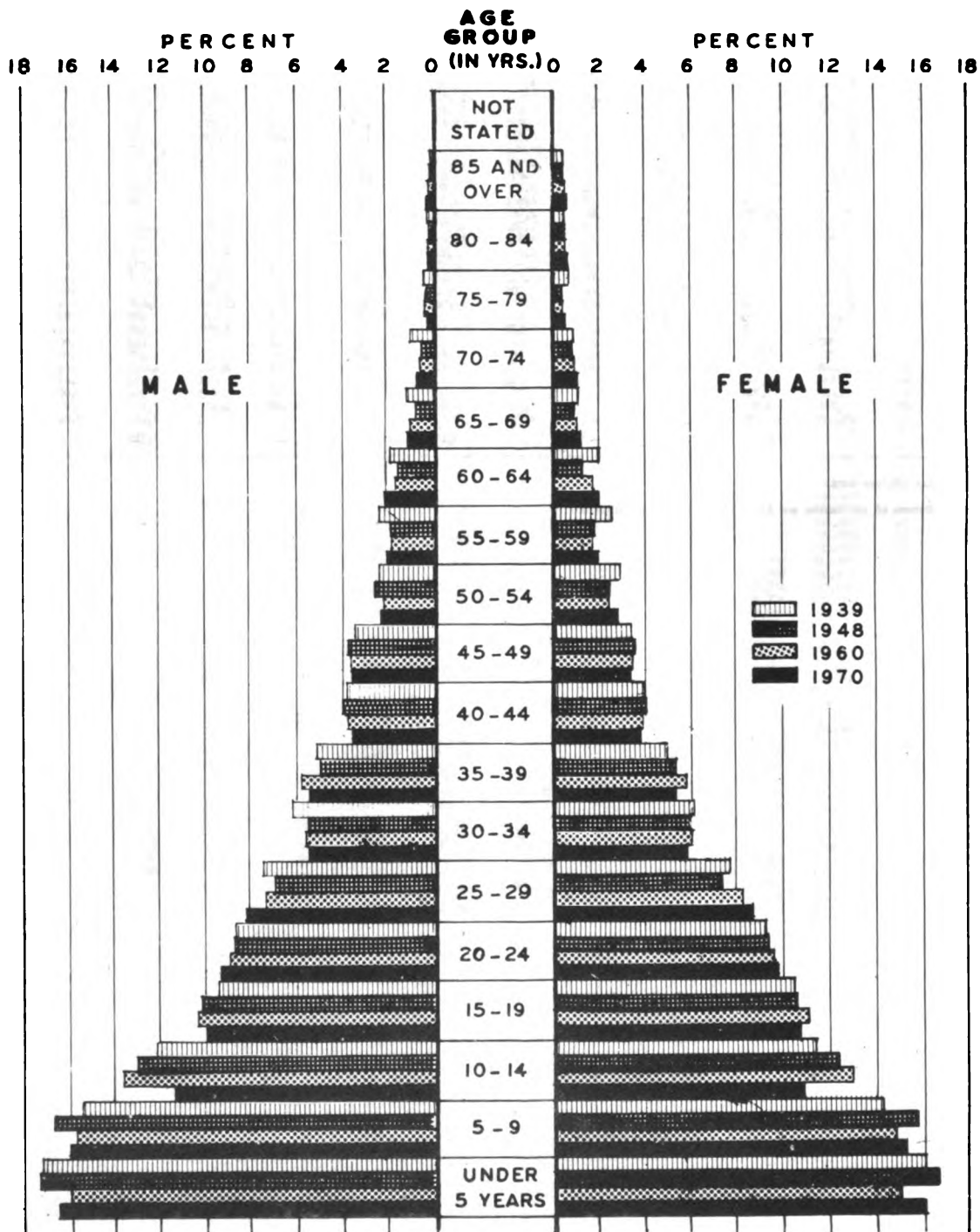
	Both sexes				Male				Female			
	Number		Per cent of total population		Number		Per cent of total population		Number		Per cent of total population	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
66 years	40,711	87,680	0.15	.24	20,181	41,701	.07	.11	20,530	45,979	.08	.13
69 "	20,922	65,818	0.08	.18	10,838	34,835	.04	.10	10,083	30,983	.04	.08
70 "	136,771	218,506	0.51	.60	67,493	113,354	.25	.31	69,278	105,152	.26	.29
71 "	13,000	28,253	0.05	.08	7,369	15,033	.03	.04	5,631	13,220	.02	.04
72 "	28,017	48,099	0.11	.14	15,169	23,981	.06	.07	12,848	24,118	.05	.07
73 "	16,662	29,782	0.06	.08	8,921	14,782	.03	.04	7,741	15,000	.03	.04
74 "	14,490	30,738	0.05	.08	7,847	15,543	.03	.04	6,643	15,195	.02	.04
75 "	30,598	67,569	0.19	.19	24,102	31,597	.09	.09	26,456	35,972	.10	.10
76 "	15,010	27,249	0.06	.08	7,838	13,430	.03	.04	7,172	13,819	.03	.04
77 "	11,878	20,641	0.04	.06	6,540	11,041	.02	.03	5,338	9,600	.02	.03
78 "	23,353	37,454	0.09	.10	12,264	18,127	.05	.05	11,089	19,327	.04	.05
79 "	9,212	15,084	0.04	.04	4,987	7,563	.02	.02	4,225	7,521	.02	.02
80 "	73,741	83,476	0.27	.23	35,001	38,410	.13	.11	38,740	45,066	.14	.12
81 "	5,532	11,831	0.02	.04	3,009	5,805	.01	.02	2,523	6,026	.01	.02
82 "	9,331	19,521	0.04	.06	4,804	9,592	.02	.03	4,527	9,929	.02	.03
83 "	5,653	11,377	0.02	.03	2,968	5,544	.01	.01	2,685	5,833	.01	.02
84 "	5,089	10,225	0.02	.03	2,702	4,779	.01	.01	2,387	5,446	.01	.02
85 "	18,604	26,126	0.07	.07	8,591	12,295	.03	.03	10,013	13,831	.04	.04
86 "	4,803	9,688	0.02	.04	2,468	4,714	.01	.03	2,335	4,974	.01	.01
87 "	5,617	9,447	0.02	.02	2,997	4,674	.01	.01	2,620	4,773	.01	.01
88 "	4,388	7,945	0.02	.02	2,310	3,791	.01	.01	2,078	4,154	.01	.01
89 "	4,000	6,678	0.01	.02	2,104	3,463	.01	.01	1,896	3,215	.01	.01
90 "	21,040	24,652	0.08	.07	9,724	11,045	.04	.03	11,316	13,607	.04	.04
91 "	1,319	2,365	#	.01	686	1,495	.00	.01	633	870	.00	.00
92 "	2,070	4,231	0.01	.02	978	2,185	.00	.01	1,092	2,046	.01	.01
93 "	1,363	2,185	0.01	.01	656	942	.01	.01	707	1,243	.00	.00
94 "	955	1,641	#	.00	465	840	.00	.00	490	801	.00	.00
95 "	5,448	6,937	0.02	.02	2,466	2,820	.01	.01	2,982	4,117	.01	.01
96 "	1,536	2,574	0.01	.01	762	1,401	.00	.01	774	1,173	.01	.00
97 "	1,409	1,787	0.01	.00	754	823	.01	.00	655	964	.00	.00
98 "	2,751	3,982	0.01	.01	1,322	1,804	.00	.00	1,429	2,178	.01	.01
99 and over	19,220	16,290	0.07	.04	8,854	7,608	0.03	.02	10,366	8,682	0.04	.02
Not stated		6,419		.02		3,107		.01		3,312		.01

#/ Less than .01 per cent.

Source: Bureau of the Census and Statistics, Population Division.

FIGURE III.2

**PERCENT DISTRIBUTION OF MALE AND FEMALE POPULATION  
BY 5-YEAR AGE GROUP: 1939, 1948, 1960 & 1970**



## AGE DISTRIBUTION OF POPULATION

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Table III.11 -- AGE DISTRIBUTION OF THE POPULATION BY PROVINCE, 1970

PROVINCE	TOTAL	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44
<b>PHILIPPINES</b>	<b>36,990,066</b>	<b>6,070,988</b>	<b>5,404,017</b>	<b>4,298,637</b>	<b>3,674,416</b>	<b>3,363,449</b>	<b>2,872,284</b>	<b>2,280,451</b>	<b>1,900,468</b>	<b>1,436,827</b>
Abra	145,201	19,222	21,281	18,094	15,324	10,906	8,917	8,142	7,693	6,387
Agusan	451,792	80,665	70,615	55,574	45,209	40,964	36,257	31,106	24,206	17,649
Alban	263,198	39,065	39,478	34,150	24,388	18,911	16,648	14,591	13,039	10,344
Albay	673,354	119,029	104,347	86,128	64,835	58,374	47,659	37,387	31,624	25,744
Antique	288,985	42,603	43,941	36,817	27,788	21,079	19,967	16,666	15,524	12,250
Bataan	215,609	36,436	32,877	26,651	22,984	22,122	14,320	12,342	10,242	9,161
Batanes	11,360	1,601	1,667	1,431	794	550	14,805	719	630	482
Batangas	924,795	152,774	115,816	95,353	87,706	93,796	74,649	58,670	44,304	33,732
Bohol	682,911	98,070	94,704	80,679	62,954	51,483	47,661	40,697	34,571	28,563
Bukidnon	413,628	79,906	69,922	52,321	42,119	34,222	31,342	24,693	22,019	18,154
Bulacan	836,050	139,797	111,084	88,398	80,881	85,733	68,717	56,204	45,032	33,356
Cagayan	580,880	92,992	92,634	71,939	55,374	46,534	39,750	31,369	31,369	22,379
Camarines Norte	262,012	48,132	41,756	35,053	27,149	21,894	19,318	14,943	12,274	9,286
Camarines Sur	947,367	167,366	149,142	124,207	97,697	77,531	66,169	52,643	42,645	37,578
Capiz	393,677	63,689	59,763	50,375	41,601	32,886	29,314	22,240	18,802	14,504
Catanduanes	162,100	26,389	26,338	22,818	15,494	11,497	10,042	8,332	7,066	6,176
Cavite	519,040	79,635	68,991	57,683	53,557	54,199	38,719	33,189	27,434	20,853
Cebu	1,631,531	258,495	220,155	175,482	159,953	151,693	126,438	102,408	86,016	67,792
Cotabato	1,600,434	291,037	253,933	178,447	155,818	151,194	147,804	102,984	86,969	60,161
Davao	1,470,484	263,754	224,431	173,868	156,507	141,144	122,983	93,144	75,990	54,908
Ilocos Norte	343,099	45,211	44,119	39,814	32,101	27,421	23,148	19,419	17,362	13,903
Ilocos Sur	364,585	50,982	52,375	43,359	33,574	26,719	25,710	22,354	18,322	17,249
Iloilo	1,164,271	181,706	163,412	137,551	113,703	98,789	87,812	72,689	62,870	46,123
Isabela	647,426	111,765	105,581	78,915	68,145	59,728	45,766	37,103	31,396	23,108
La Union	373,419	56,047	53,844	44,145	35,969	30,913	25,007	22,239	18,642	14,755
Laguna	698,459	117,049	97,228	80,953	73,106	66,926	54,447	43,410	35,741	28,188
Lanao del Norte	349,625	62,601	55,116	42,093	33,433	32,780	30,152	22,977	19,914	14,329
Lanao del Sur	454,998	88,416	84,218	50,504	39,621	34,880	40,940	28,762	21,129	17,129
Leyte	1,360,723	218,057	215,649	177,034	129,635	107,335	88,450	75,517	69,564	56,719
Manila	1,323,430	183,767	147,225	131,934	161,177	172,530	123,414	98,017	73,391	55,766
Marikina	144,047	24,595	21,960	19,406	13,849	12,054	10,602	7,735	6,129	4,789
Marikina	492,394	96,255	82,841	64,575	47,831	42,118	37,601	27,265	24,264	17,091
Masbate	319,303	50,577	47,777	40,119	34,335	28,641	24,076	19,526	15,651	12,603
Misamis Oriental	525,905	88,279	81,096	66,040	54,742	46,224	39,568	32,959	26,049	20,100
Mountain Province	583,233	96,132	93,523	70,813	55,144	44,950	36,624	34,156	34,156	24,733
Negros Occidental	1,490,058	254,636	219,444	171,394	150,469	133,547	124,315	97,852	80,000	54,769
Negros Oriental	714,623	112,167	108,362	85,833	72,549	57,683	53,527	44,225	37,165	28,385
Nueva Ecija	850,684	147,377	128,147	103,593	84,345	74,952	61,169	52,138	41,826	31,494
Nueva Vizcaya	221,738	35,778	34,974	28,355	24,372	18,948	14,785	12,269	11,842	9,092
Occidental Mindoro	142,763	24,638	22,946	19,152	14,182	12,358	10,346	8,530	7,396	5,902
Oriental Mindoro	328,267	57,826	51,527	39,955	31,521	30,409	25,700	19,134	15,321	12,214
Palawan	231,787	38,360	37,842	28,280	22,030	19,143	18,944	14,961	14,248	9,253
Pampanga	905,748	165,516	139,606	108,820	89,411	87,376	64,598	54,264	45,104	31,774
Pangasinan	1,385,338	220,870	196,630	170,242	140,231	123,466	98,978	73,052	66,771	55,240
Quezon	982,483	168,426	145,809	117,355	97,859	88,545	74,111	58,889	48,981	37,223
Rizal	2,819,045	454,463	350,953	275,073	301,908	340,587	273,944	218,808	160,748	115,047
Romblon	167,024	27,707	27,714	20,879	15,992	12,215	12,567	9,073	8,192	6,729
Samar	1,018,761	169,001	170,281	129,993	94,069	74,905	61,078	56,569	53,383	40,278
Sorsogon	426,935	77,259	71,609	55,932	40,922	32,635	30,423	26,381	22,174	15,923
Sulu	425,385	63,855	73,369	52,592	40,845	33,197	36,876	26,503	23,444	20,017
Surigao	496,652	80,880	78,691	61,551	50,087	40,907	38,448	29,040	25,761	20,408
Tarlac	559,306	93,685	82,501	68,395	56,010	53,205	43,363	32,766	26,978	20,106
Zambales	341,925	59,076	57,152	33,705	33,705	33,186	29,703	23,441	18,367	12,748
Zamboanga del Norte	409,047	71,977	66,391	50,437	40,604	35,656	32,882	24,275	20,550	16,210
Zamboanga del Sur	1,033,164	181,325	162,384	121,026	108,103	96,419	83,685	66,698	53,295	39,561



Table III.11.—AGE DISTRIBUTION OF THE POPULATION BY PROVINCE, 1970 (Continued)

PROVINCE	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 & above	Not stated
<b>PHILIPPINES</b>	<b>1,278,273</b>	<b>1,071,281</b>	<b>925,599</b>	<b>734,518</b>	<b>496,107</b>	<b>355,378</b>	<b>160,997</b>	<b>136,430</b>	<b>126,528</b>	<b>6,419</b>
Abra	7,416	5,887	4,538	3,366	2,534	2,007	1,175	1,352	914	46
Agusan	12,392	9,196	9,177	5,964	3,527	2,815	1,024	779	687	66
Aklan	10,837	9,437	9,437	8,306	5,696	4,170	1,957	1,436	1,519	114
Albay	22,485	18,324	17,566	14,326	9,508	7,524	3,122	2,592	2,666	114
Antique	11,628	9,634	8,731	7,627	5,194	3,536	2,327	1,784	1,612	97
Bataan	6,474	5,170	5,318	3,658	2,878	2,018	803	692	863	-
Batanes	33,482	32,753	28,440	25,382	15,604	12,747	301	60	92	-
Benguet	12,771	10,771	9,177	6,824	4,531	3,524	1,524	1,349	1,349	176
Bicol	27,066	26,665	24,769	20,527	15,631	12,801	6,232	4,184	3,753	41
Bulacan	12,076	9,696	6,853	5,325	3,710	2,901	1,806	1,582	1,713	43
Bulacan	28,887	24,539	22,339	17,944	12,737	9,770	4,581	3,147	2,755	89
Cagayan	22,799	18,049	13,088	13,612	8,517	6,190	2,542	2,601	2,450	24
Camarines Norte	8,022	6,886	5,389	4,020	2,571	2,758	847	999	667	68
Camarines Sur	32,010	26,098	24,033	17,992	11,365	9,340	4,409	3,458	3,716	68
Capi	13,664	12,121	9,627	9,495	4,995	3,673	2,125	2,311	1,708	-
Catanduanes	6,317	5,694	4,657	4,007	2,735	1,873	874	898	793	-
Cebu	17,892	15,720	15,324	11,313	8,923	5,739	3,531	2,441	2,832	65
Comabato	60,348	53,089	49,914	40,974	32,002	22,051	10,385	10,294	7,712	130
Davao	44,351	39,697	39,004	23,081	12,751	8,296	2,999	2,676	2,366	1,088
Davao Norte	13,771	13,451	12,424	24,166	11,731	8,296	3,893	3,120	2,777	359
Davao Sur	11,019	11,019	11,019	11,019	11,019	11,019	11,019	11,019	11,019	11,019
Iloilo	45,243	39,393	32,449	26,565	17,504	14,562	3,263	2,321	2,172	47
Iloilo	21,319	18,620	15,768	11,723	7,504	5,562	3,435	2,321	2,172	159
La Union	11,668	10,955	10,955	10,955	10,955	10,955	10,955	10,955	10,955	10,955
Laguna	22,940	20,955	18,422	14,426	10,913	7,040	3,775	2,602	2,490	48
Marikina	11,251	8,143	6,044	4,976	3,619	2,526	930	710	391	30
Marikina	16,899	8,546	5,388	3,201	1,941	769	292	164	96	96
Marikina	52,532	44,532	38,409	30,538	22,397	15,912	6,847	6,036	4,532	48
Marikina	47,185	39,086	31,920	24,440	15,346	8,721	4,249	2,612	1,938	482
Marikina	5,245	4,545	3,345	2,717	1,722	1,684	922	521	557	19
Marikina	14,515	11,589	10,373	8,621	5,416	3,949	1,330	1,240	1,477	23
Marikina	11,771	9,977	7,736	6,646	3,866	3,357	1,272	962	811	-
Marikina	17,782	14,406	12,040	9,340	6,043	5,006	1,963	1,211	1,457	-
Marikina	17,021	14,021	11,021	10,421	8,721	7,121	4,321	3,521	2,821	21
Marikina	46,671	37,671	30,671	24,671	18,671	12,671	6,671	4,771	3,871	106
Marikina	27,699	23,191	20,597	16,771	13,104	9,436	3,686	2,774	2,192	95
Marikina	27,808	24,355	21,200	16,640	10,487	8,163	4,442	3,162	2,137	26
Marikina	8,137	6,699	5,154	4,133	2,436	1,314	594	393	348	48
Marikina	4,897	3,474	2,967	2,399	1,357	794	349	214	164	48
Marikina	11,386	10,167	7,710	6,016	4,000	2,453	1,312	823	685	48
Marikina	8,265	6,528	5,090	4,040	2,999	1,999	551	330	264	21
Marikina	27,657	23,516	21,360	16,038	11,399	8,402	4,092	3,499	3,140	116
Marikina	55,019	44,166	40,419	34,779	24,227	18,779	8,874	6,974	7,198	196
Marikina	32,911	29,684	26,455	21,071	13,665	9,600	4,749	3,407	3,532	391
Marikina	90,917	70,231	58,092	43,556	28,139	16,932	9,307	5,011	4,585	784
Marikina	6,505	5,872	4,053	3,398	2,785	1,750	765	396	332	-
Marikina	31,897	25,865	24,151	24,151	13,751	12,512	4,799	3,957	3,569	290
Marikina	17,443	14,032	11,032	8,421	5,704	3,704	2,086	1,945	1,838	65
Marikina	17,865	14,032	11,032	8,421	5,704	3,704	2,086	1,945	1,838	65
Marikina	17,833	14,032	11,032	8,421	5,704	3,704	2,086	1,945	1,838	65
Marikina	17,907	14,032	11,032	8,421	5,704	3,704	2,086	1,945	1,838	65
Marikina	11,297	8,896	7,266	4,944	3,245	2,477	1,273	1,836	2,034	64
Marikina	12,871	10,441	8,398	6,984	4,245	3,164	1,276	1,034	791	43
Marikina	32,520	25,101	21,194	17,128	10,580	6,919	2,916	2,428	1,821	61

a/ Does not include institutional members.

b/ Includes Oaxigila.

c/ Includes Baguio, Kalinga-Igugao, Ifugao.

Source: Bureau of the Census and Statistics, Population Division.

## AGE DISTRIBUTION OF POPULATION

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Table 111.11.a - AGE DISTRIBUTION OF THE POPULATION BY REGION : 1970

REGION	TOTAL	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44
<b>PHILIPPINES</b>	<b>26,590,068</b>	<b>6,070,988</b>	<b>5,404,017</b>	<b>4,298,637</b>	<b>3,674,416</b>	<b>3,263,449</b>	<b>2,872,284</b>	<b>2,280,451</b>	<b>1,900,469</b>	<b>1,436,827</b>
Region I - Manila	1,323,430	183,767	147,225	131,934	161,177	172,530	123,414	98,017	73,391	55,766
Region II - Iloos & Mt. Province	1,829,537	267,594	265,342	216,225	172,212	140,909	127,452	108,778	94,175	77,027
Region III - Cagayan Valley & Batanes	1,461,404	242,136	234,886	180,640	148,685	125,760	101,106	88,318	75,227	55,061
Region IV - Central Luzon	5,094,660	862,707	736,213	603,151	507,567	486,040	384,848	303,907	254,320	193,879
Region V - Southern Luzon & Islands	6,790,696	1,117,766	914,072	733,215	695,618	717,019	581,462	463,326	361,613	266,571
Region VI - Rical & Masbate	2,964,162	528,630	475,733	388,713	292,928	244,037	211,212	162,951	136,047	111,798
Region VII - Western Visayas	3,767,213	609,306	553,752	451,166	373,941	317,427	290,683	233,081	198,387	144,719
Region VIII - Eastern Visayas	5,408,549	855,790	809,151	649,021	518,865	443,299	387,154	319,416	278,699	219,737
Region IX - Northern Mindanao	3,011,903	531,344	487,435	368,202	300,546	258,818	240,783	189,053	162,362	121,412
Region X - Southern Mindanao & Sulu	4,938,514	871,948	780,208	576,370	501,877	457,610	424,230	313,604	266,248	190,857
<b>PHILIPPINES</b>	<b>1,278,273</b>	<b>1,071,281</b>	<b>925,599</b>	<b>734,518</b>	<b>656,107</b>	<b>555,378</b>	<b>467,997</b>	<b>336,430</b>	<b>226,528</b>	<b>143,819</b>
Region I Manila	47,185	39,086	31,920	24,440	15,346	8,721	4,249	2,842	1,938	482
Region II Iloos & Mt. Province	79,665	67,999	62,088	48,098	37,401	27,501	14,722	11,769	10,037	543
Region III Cagayan Valley & Batanes	52,587	44,141	34,250	29,392	18,961	13,283	5,500	5,692	5,662	117
Region IV Central Luzon	176,049	149,175	132,534	104,175	73,783	55,811	26,805	21,273	21,376	1,047
Region V Southern Luzon & Islands	227,945	194,061	166,045	131,222	86,381	58,326	31,237	21,410	22,007	1,400
Region VI Rical & Masbate	96,855	80,323	73,374	57,317	37,299	30,670	12,668	11,132	11,157	318
Region VII Western Visayas	137,554	115,571	106,409	84,890	53,048	41,327	21,240	17,598	16,899	275
Region VIII Eastern Visayas	204,578	179,374	160,544	132,471	94,790	71,466	31,929	28,625	23,093	547
Region IX Northern Mindanao	101,604	76,843	61,597	46,012	26,273	19,885	8,106	6,436	5,066	146
Region X Southern Mindanao & Sulu	154,251	124,708	96,838	76,501	42,825	28,388	11,541	9,673	9,293	1,544

Source: Bureau of the Census and Statistics, Population Division.

A comparison of the median ages of the population from 1903 to 1970 is shown below. The median is the value which divides a distribution into two equal parts — one-half of the cases falling below this value and the other half exceeding it. The median age, therefore determines whether the population is predominantly composed of persons of the older or younger ages.

From all indications, the Philippine population is largely composed of very young people. Its median age has been characterized by a steady decrease, from 20.2 in 1903 to as low as 16.6 in 1960. In 1970, however, median age went up to 17.8. This increase, may be due to the decline in the proportion of the population less than 15 years of age to the total population, as stated earlier.

<u>Census Year</u>	<u>Median Age</u>
1903	20.2
1918	18.5
1939	18.3
1948	17.7
1960	16.6
1970	17.8

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Source: Bureau of the Census and Statistics,  
Population Division.

### Status

Civil status is another very important aspect of population which, combined with age and sex, influences in a large measure the vital, social and economic aspects of a country. The number of married females between 15 and 44 years of age is a most significant factor in the fertility of a population. If the proportion of married females in this group is low the expected birth rate will be low. In 1960, 76.0 percent of all married females were in the 15 to 24 age group compared with 78.0 percent in 1948.

The population reported as single increased from 6,036,150 in 1948 to 8,323,157 in 1960, which is equivalent to a 37.9 percent increase. During the same period, the married population increased by 43.2 percent and the widowed by 1.8 percent. Other striking features are the excess of married females and the preponderance of widows over widowers.

The marital status of the population by age group in 1948 and 1960 is shown in Table III.12.

## MARITAL STATUS OF POPULATION

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TABLE III.12.- MARITAL STATUS OF THE POPULATION, 10 YEARS OLD AND OVER, BY AGE GROUP AND SEX: CENSUS YEARS 1946 AND 1960

Age	Total			Single			Married			Widowed			Divorced or separated			Not reported		
	1946	1960	Percent 1946/1960	1946	1960	Percent 1946/1960	1946	1960	Percent 1946/1960	1946	1960	Percent 1946/1960	1946	1960	Percent 1946/1960	1946	1960	Percent 1946/1960
All Ages	6,977,269	9,054,265	37.2	3,164,920	4,346,663	37.3	3,100,433	4,435,609	43.1	242,641	242,830	0.1	12,598	28,988	130.2	76,486	179	
M	6,793,682	9,008,607	35.6	2,871,229	3,976,484	34.5	3,126,580	4,483,129	43.4	565,453	579,582	2.5	24,728	52,187	111.6	115,688	216	
F	13,700,961	18,145,872	36.4	6,036,150	8,123,187	37.9	6,227,013	8,918,738	43.2	808,034	822,412	1.8	37,128	82,175	117.5	192,576	398	
Under 15	1,312,941	1,765,952	34.5	1,302,583	1,761,351	35.2	1,021	4,044	296.1	35	297	748.6	26	244	838.5	9,276	36	
M	1,247,776	1,669,407	33.9	1,238,719	1,664,921	34.4	1,678	8,093	144.4	73	667	261.0	20	206	779.1	6,703	28	
F	2,860,113	3,443,427	34.2	2,541,302	3,426,272	34.8	2,678	8,093	202.2	108	563	520.4	46	386	739.1	15,979	114	
15 - 19	1,001,595	1,364,759	38.3	961,592	1,343,195	39.7	28,463	40,041	40.7	612	542	(11.4)	842	977	11.3	19,086	46	
M	1,062,790	1,429,543	34.5	895,658	1,248,078	39.3	120,956	177,786	16.6	2,447	1,312	(43.6)	1,633	2,299	40.8	10,478	26	
F	2,064,104	2,624,306	36.3	1,867,592	2,591,265	39.5	180,956	217,877	20.4	3,099	1,674	(36.7)	2,475	3,236	30.7	20,544	94	
20 - 24	855,098	1,194,182	29.6	546,592	782,347	43.1	290,187	404,568	38.9	4,456	3,451	(21.7)	1,495	3,759	150.1	11,268	37	
M	912,356	1,264,441	38.6	564,122	800,283	53.9	512,086	688,724	34.5	14,490	7,772	(49.8)	4,324	8,131	88.0	17,274	46	
F	1,767,456	2,458,623	39.1	910,714	1,342,630	47.4	803,273	1,093,292	36.1	18,946	10,763	(43.2)	5,819	11,870	104.0	28,742	60	
25 - 29	715,785	952,368	33.1	191,290	258,364	35.1	204,478	661,740	35.1	10,432	7,547	(27.7)	2,075	4,711	127.0	7,552	6	
M	778,162	1,000,981	28.6	144,125	195,679	35.8	189,142	783,082	32.9	29,361	13,527	(47.0)	4,215	8,643	106.6	11,318	20	
F	1,493,947	1,953,349	30.8	335,375	454,043	35.4	1,093,620	1,464,822	33.9	29,793	21,074	(47.0)	6,288	13,394	113.6	18,871	16	
30 - 34	545,249	764,978	40.3	65,561	87,012	32.7	457,849	664,209	45.1	13,119	10,085	(23.1)	1,698	3,667	116.0	7,022	5	
M	575,776	790,473	37.5	70,909	91,654	29.6	453,854	670,829	47.8	34,444	21,284	(34.0)	1,438	7,444	116.5	13,698	12	
F	1,121,025	1,556,451	38.8	136,470	178,906	31.1	911,743	1,335,038	46.4	47,563	31,379	(34.0)	5,136	11,111	116.5	20,113	17	
35 - 39	568,095	706,568	23.7	40,721	43,104	5.8	498,935	641,106	28.5	19,424	14,751	(24.1)	1,648	3,601	118.5	7,337	6	
M	560,429	690,768	28.4	51,868	59,004	13.8	447,271	626,824	40.1	45,009	33,364	(25.9)	2,987	6,707	124.5	13,453	13	
F	1,128,853	1,428,474	28.5	96,609	102,108	10.3	946,706	1,287,930	34.0	64,453	48,115	(25.3)	4,635	10,308	122.4	20,770	8	
40 - 44	374,436	546,393	45.9	19,805	22,496	13.6	359,534	503,007	52.5	19,009	18,028	(5.2)	1,101	2,778	152.3	4,987	4	
M	380,429	552,585	45.3	32,328	41,911	29.6	329,986	459,749	59.5	47,059	45,700	(2.9)	2,114	5,221	147.0	10,648	4	
F	754,865	1,098,978	45.6	52,133	64,407	23.5	618,242	962,856	55.7	66,068	63,728	(3.5)	3,215	7,959	148.4	15,267	8	
45 - 49	363,700	524,638	44.3	12,649	16,938	33.9	319,798	482,199	30.8	25,248	22,934	(9.2)	1,077	2,561	137.4	4,908	6	
M	369,457	508,045	34.1	22,285	31,285	61.1	329,986	407,645	69.5	37,250	37,969	(4.7)	1,842	4,565	147.8	6,734	8	
F	207,052	365,354	78.5	7,065	10,656	53.7	175,115	327,860	87.2	21,094	24,676	(17.0)	684	1,981	186.7	3,094	1	
50 - 54	228,172	344,745	52.1	14,785	28,668	80.4	146,912	246,921	69.5	37,170	61,553	(39.0)	1,377	3,167	139.2	9,282	7	
M	237,052	365,354	52.1	14,785	28,668	80.4	146,912	246,921	69.5	37,170	61,553	(39.0)	1,377	3,167	139.2	9,282	7	
F	43,177	79,391	57.7	21,850	37,154	71.7	32,027	57,644	79.1	78,484	90,669	(13.5)	2,061	5,128	148.8	9,375	7	
55 - 59	177,778	252,384	42.8	4,782	6,601	40.5	148,292	222,329	49.8	20,837	21,942	(5.3)	590	1,431	160.2	3,189	1	
M	184,801	270,118	37.5	9,772	13,407	41.8	164,609	234,659	46.9	27,978	30,175	(7.9)	519	1,342	158.6	3,017	4	
F	332,106	439,504	29.7	14,152	19,103	35.0	24,239	303,355	41.6	66,778	70,208	(12.6)	1,715	117.4	7.452	7,642	8	
60 - 64	168,654	230,795	28.3	7,709	8,703	12.9	132,511	194,649	46.9	27,978	30,175	(7.9)	519	1,342	158.6	3,017	4	
M	177,778	252,384	42.8	4,782	6,601	40.5	148,292	222,329	49.8	20,837	21,942	(5.3)	590	1,431	160.2	3,189	1	
F	332,106	439,504	29.7	14,152	19,103	35.0	24,239	303,355	41.6	66,778	70,208	(12.6)	1,715	117.4	7.452	7,642	8	
65 yrs. and over	286,654	369,873	23.3	17,549	22,411	27.7	212,634	269,767	26.9	80,386	88,362	(9.9)	877	2,016	129.9	5,048	5	
M	286,654	369,873	23.3	17,549	22,411	27.7	212,634	269,767	26.9	80,386	88,362	(9.9)	877	2,016	129.9	5,048	5	
F	486,656	738,648	21.8	25,238	31,117	23.2	321,524	415,754	29.3	244,877	287,652	(17.5)	2,033	4,110	102.2	12,944	25	
Age not reported	339	-	-	32	-	-	116	-	-	11	-	-	-	-	-	180	-	-
Percent reported	163	-	-	121	-	-	8	-	-	7	-	-	-	-	-	27	-	-
	502	-	-	159	-	-	124	-	-	18	-	-	-	-	-	207	-	-

Source: Bureau of the Census and Statistics, Population Division.

## Religion

During the Spanish regime, religious freedom was unknown in the country. The authorities permitted only one religion — that of the Roman Catholic Church. However, upon the change of sovereignty from Spanish to American, democracy was planted in these islands. Freedom of worship which is an essence of democracy, allowed other classes of religion. Nevertheless, this new era did not affect much the religious beliefs of the Filipinos, the Philippines, in general having remained a Catholic country.

The data on religion, have been compiled from the answers to the question "What is your religion?" The religion of minor children was considered the same as those of their parents, and if the mother and father did not profess the same religion, the religion of the child was that which the parents reported for the child.

As shown in Table III.13, the Roman Catholic religion predominates in the Philippines with a total of 22,686,096 adherents or 83.8 percent of the total population in 1960 compared with 15,941,422 or 82.9 percent in 1948. The Aglipayan religion founded by Bishop Gregorio Aglipay, a foremost Filipino Catholic priest whose schism from the Roman Catholic Church gave birth to the "Iglesia Filipina Independiente" (Aglipayan) ranks next with a following of 1,414,431 or 5.2 percent of the total population in 1960. This is a decrease from the 1948 figures by 41,683 persons. The Mohammedan religion professed by the Muslims in Mindanao and Sulu counts with 1,317,475 and 791,817 in 1960 and 1948, respectively. The Protestant religion, although it counts with many denomination, churches or congregations, has a following of only 785,399 in 1960 or 2.9 percent of the total. Numerically and proportionally, however, the number of Protestants increased by 340,908 or 76.7 percent over the 1948 figure. Iglesia ni Kristo, another religion founded by a Filipino has also increased its following by as much as 206.5 percent. Buddhists registered a decrease of 3,120 while other religious and non-religious groups which include Shintoists, Pagans and Atheists has increased from 469,462 to 574,549.

Table III.13—PRINCIPAL RELIGIOUS DENOMINATIONS OF THE POPULATION, CENSUS YEARS 1960 AND 1948

Religion	1960		1948		Increase/Decrease	
	Number	Per cent	Number	Per cent	Number	Per cent
Total	27,087,685	100.0	19,234,182	100.0	7,853,503	40.8
Roman Catholic	22,686,096	83.8	15,941,422	82.9	6,744,674	42.3
Aglipayan	1,414,431	5.2	1,456,114	7.6	(41,683)	(2.9)
Mohammedan	1,317,475	4.9	791,817	4.1	525,658	66.4
Protestant	785,399	2.9	444,491	2.3	340,908	76.7
Iglesia ni Kristo	270,104	1.0	88,125	0.5	181,979	206.5
Buddhist	39,631	0.1	42,751	0.2	(3,120)	(7.3)
Other Religions	574,549	2.1	469,462	2.4	105,087	22.4

Source: Bureau of the Census and Statistics, Population Division.

## Mother Tongues, Languages and Dialects

Language is generally accepted as signifying a fixed idiom of a large number of people who have developed very considerable written literature. Dialect is the term used to indicate the medium of speech of a group of people who have comparatively little or no written literature. Mother tongue or native language or dialect, is the language or dialect spoken at home in earliest childhood.

There are 81 languages and dialects spoken in the Philippines, 66 of which are native languages and 15 are foreign languages.

In the table on mother tongue covering the whole population, only the number of persons speaking each of the major mother tongues in the Philippines, is shown. The portion of the population reported as speaking a mother tongue other than the eight major ones is grouped under "Others".

Among the eight major tongues spoken in the Philippines in 1960 Bisaya (Cebuano) topped the list with 6,529,882 persons or 24.1 percent of the total population. Tagalog ranked second with 5,694,072 or 21.0 percent, Iloko, third with 3,158,560 or 11.7 percent, Panay-Hiligaynon, fourth with 2,817,314 or 10.4 percent, Bikol, fifth with 2,108,837 or 7.8 percent, Bisaya (Samar-Leyte), sixth with 1,488,668 or 5.5 percent, Pampango, seventh with 875,531 or 3.2 percent, and Pangasinan, eighth with 666,003 or 2.5 percent. The proportion in the 1948 census is almost the same except for Panay-Hiligaynon and Iloko which occupied third and fourth places, respectively.

Table III.14—MOTHER TONGUE OF THE POPULATION: 1960 AND 1948

Mother Tongue	1960		1948		Increase/Decrease	
	Number	Per cent	Number	Per cent	Number	Per cent
Total	27,087,685	100.0	19,234,182	100.0	7,853,503	40.8
Bisaya (Cebuano)	6,529,882	24.1	4,759,772	24.7	1,770,110	37.2
Tagalog	5,694,072	21.0	3,730,028	19.4	1,964,044	52.6
Panay-Hiligaynon	2,817,314	10.4	2,373,566	12.3	443,748	18.7
Iloko	3,158,560	11.7	2,340,221	12.2	818,339	35.0
Bikol	2,108,837	7.8	1,467,874	7.6	640,963	43.8
Bisaya (Samar-Leyte)	1,488,668	5.5	1,203,963	6.3	284,705	23.6
Pampango	875,531	3.2	641,795	3.3	233,736	36.4
Pangasinan	666,003	2.5	515,158	2.7	150,845	29.3
Others	3,748,818	13.8	2,201,805	11.5	1,547,013	70.3

Source: Bureau of the Census and Statistics, Population Division.

Aside from the eight major tongues spoken in the Philippines, there are also three official languages being used; namely: English, Spanish and Tagalog. In 1960, 44.4 percent of the total population were reported as able to speak Tagalog, which is the basis of our national language, 39.5 percent, English and 2.1 percent, Spanish. The proportion of the population who speak Tagalog in the provincial level, ranges from 10.8 percent in Lanao del Sur and Sulu to 99.6 percent in Batangas, English from 8.0 percent in Lanao del Sur to 64.9 percent in Manila, and Spanish from 0.4 percent in Sulu to 5.8 percent in Manila. In 1948, the proportion of the total population who speak the three official languages was less than those of the 1960 level as shown in the accompanying Table.



## POPULATION

Table III.15- PERSONS ABLE TO SPEAK TAGALOG, ENGLISH, AND SPANISH BY PROVINCE: 1948 and 1960

Province	Tagalog				English				Spanish			
	1960		1948		1960		1948		1960		1948	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
<b>PHILIPPINES</b>	<b>12,019,193</b>	<b>44.4</b>	<b>7,100,913</b>	<b>57.1</b>	<b>10,689,171</b>	<b>59.5</b>	<b>7,100,420</b>	<b>57.2</b>	<b>550,934</b>	<b>2.1</b>	<b>345,111</b>	<b>1.8</b>
Abra	24,112	20.9	28,001	24.1	31,551	50.5	40,557	51.8	1,804	0.9	786	0.9
Agusan	75,919	27.3	23,502	18.9	1,000,000	30.9	50,126	40.1	1,000	2.7	1,700	1.3
Aklan	73,000	30.5	90,000	24.5	90,000	30.5	90,000	30.5	4,000	1.9		
Albay	200,000	30.0	90,000	24.5	100,000	30.0	100,000	30.0	7,000	1.4	5,114	0.8
Antique	40,000	10.0	30,000	10.0	40,000	10.0	40,000	10.0	2,000	0.9	149	0.1
Bataan	140,000	20.0	90,000	10.0	90,000	10.0	90,000	10.0	1,000	0.9	897	1.0
Batanes	4,000	41.7	4,119	30.5	6,100	50.4	5,000	51.0	300	3.0	368	3.4
Batangas	670,000	30.0	500,000	30.0	200,000	30.0	170,000	30.0	6,000	0.9	1,793	0.4
Bohol	80,000	15.0	70,000	14.5	200,000	34.4	190,000	33.4	8,000	1.4	4,000	0.7
Bukidnon	50,000	10.0	70,000	11.5	60,000	30.5	50,000	31.4	3,000	1.7	518	0.8
Bulacan	50,000	30.5	410,000	30.7	220,000	30.9	170,000	41.9	6,000	1.3	8,610	2.1
Cagayan	94,000	30.0	11,000	13.4	170,000	30.0	100,000	35.0	6,000	1.5	4,084	1.3
Camarines Norte	101,000	85.7	50,000	80.0	50,000	40.0	40,000	45.0	2,000	1.2	2,228	2.1
Camarines Sur	300,000	44.5	100,000	30.0	350,000	40.0	200,000	40.0	10,000	2.2	11,338	2.1
Capiz	50,000	17.0	80,000	10.5	100,000	20.4	100,000	30.0	3,000	1.3	4,753	1.1
Catanduanes	70,000	40.5	20,000	20.7	70,000	40.1	50,000	51.0	2,000	1.6	750	0.7
Cavite	50,000	30.5	200,000	40.5	170,000	40.5	170,000	40.2	1,000	3.4	4,973	1.9
Cebu	250,000	17.0	100,000	10.0	200,000	30.0	100,000	30.0	20,000	2.7	17,632	1.6
Cotabato	50,000	30.0	50,000	10.0	50,000	30.0	50,000	21.4	14,000	1.4	5,403	1.2
Davao	240,000	20.0	80,000	2.0	320,000	30.0	110,000	30.1	17,000	1.9	9,305	2.6
Ilocos Norte	80,000	20.0	90,000	21.0	110,000	41.7	90,000	31.6	4,000	1.4	2,390	1.0
Ilocos Sur	80,000	24.1	50,000	10.0	100,000	40.0	100,000	30.0	5,000	1.0	5,236	1.2
Iloilo	200,000	20.0	100,000	10.0	200,000	40.0	200,000	40.0	20,000	2.9	17,134	2.1
Isabela	100,000	17.4	60,000	20.5	100,000	30.0	90,000	30.7	5,000	1.1	5,015	1.2
La Union	100,000	37.0	80,000	20.4	100,000	40.0	80,000	30.0	3,000	1.2	2,133	0.9
Laguna	400,000	20.0	300,000	30.0	200,000	40.0	100,000	30.0	10,000	1.7	2,188	0.7
Lanao del Norte	40,000	10.0	20,000	6.5	70,000	20.0	40,000	15.5	4,000	1.5	1,877	0.5
Lanao del Sur	40,000	10.0	30,000	8.0	30,000	8.0	30,000	8.0	5,000	1.0		
Leyte	200,000	16.4	170,000	17.0	400,000	34.7	310,000	31.0	20,000	1.8	10,863	1.1
Manila	1,110,000	90.7	800,000	81.7	700,000	60.0	500,000	50.0	60,000	5.8	75,597	7.5
Marinduque	100,000	90.5	80,000	90.5	200,000	30.0	100,000	30.0	1,000	0.9	457	0.5
Masbate	70,000	21.1	20,000	10.0	100,000	30.0	50,000	20.0	5,000	1.0	2,270	1.1
Misamis Occidental	50,000	20.0	50,000	10.0	70,000	30.0	70,000	30.0	4,000	2.0	1,054	0.6
Misamis Oriental	60,000	21.0	60,000	10.0	100,000	30.0	100,000	30.0	5,000	2.5	2,796	1.3
Mountain Province	40,000	18.5	30,000	10.0	70,000	30.0	70,000	30.0	5,000	0.8	4,644	1.3
Negros Occidental	200,000	10.0	100,000	10.0	40,000	10.0	20,000	10.0	5,000	2.5	2,767	0.8
Negros Oriental	80,000	15.8	40,000	10.0	100,000	30.0	100,000	20.0	10,000	1.8	16,831	1.6
Nueva Ecija	500,000	80.5	400,000	90.0	200,000	40.0	100,000	40.0	5,000	0.9	4,449	1.0
Nueva Vizcaya	50,000	30.5	50,000	30.0	50,000	40.0	50,000	40.0	1,000	0.8	3,085	0.7
Occidental Mindoro	70,000	31.5	100,000	20.0	50,000	20.0	50,000	30.0	1,000	1.5	1,667	1.5
Oriental Mindoro	100,000	30.0	50,000	10.0	50,000	30.0	50,000	30.0	1,000	0.7		
Palawan	30,000	30.0	40,000	41.1	50,000	30.0	50,000	31.5	5,000	3.0	1,468	1.4
Pangasinan	500,000	50.0	100,000	40.0	200,000	40.0	100,000	40.0	10,000	1.5	4,012	1.1
Pangasinan	470,000	40.0	200,000	30.0	200,000	40.0	200,000	40.0	10,000	1.1	11,315	1.2
Quezon	600,000	97.8	400,000	90.7	100,000	40.0	100,000	40.0	5,000	1.4	6,598	1.6
Rizal	1,000,000	90.1	600,000	80.0	50,000	30.0	50,000	30.0	10,000	5.0	32,937	4.9
Romblon	50,000	30.5	20,000	20.0	50,000	30.0	50,000	30.0	1,000	0.9	977	0.9
Samar	100,000	19.1	110,000	10.0	200,000	30.0	200,000	30.0	10,000	1.5	8,279	1.1
Sorsogon	100,000	40.5	50,000	20.0	100,000	30.0	100,000	30.0	5,000	1.5	5,817	2.0
Sulu	100,000	10.0	100,000	10.0	100,000	10.0	100,000	10.0	1,000	0.4	886	0.3
Surigao	20,000	10.1	10,000	10.0	10,000	10.0	10,000	10.0	1,000	1.0	2,074	0.8
Tarlac	200,000	50.5	100,000	30.0	100,000	30.0	100,000	30.0	4,000	1.0	3,199	1.0
Zambales	100,000	70.1	100,000	10.0	100,000	30.0	100,000	30.0	4,000	1.0	3,005	2.1
Zamboanga del Norte	40,000	17.0	60,000	10.0	100,000	30.0	100,000	20.0	5,000	2.1	25,602	4.9
Zamboanga del Sur	120,000	10.0			200,000	30.0			50,000	4.0		

Source: Bureau of the Census and Statistics, Population Division.

## Literacy

The figures on literacy refer to those persons 10 years old and over who are able to read and write a simple message in any language or dialect and are therefore, a measure of the extent to which one of the fundamental objectives of the country's educational program has been successfully carried out.

In 1960, 72.0 percent of the population 10 years old and over was literate. This has increased to 83.4 percent by 1970. It has also been observed that the proportion of literacy among the male population is higher than those among the females, having registered 73.6 percent in 1960 for males as against 70.6 percent for females. In 1970, percent literacy for males was 84.6 percent compared to 82.2 percent for the females.

Remarkable progress has also been made in the different areas, although in some provinces the percentage of literacy is still low. In 1960, out of the 55 existing provinces then, only one (Manila) has reached a ninety percent literacy. By 1970, this has increased to 12 provinces, namely: Agusan del Norte, Bataan, Batanes, Bulacan, Camarines Norte, Cavite, Laguna, Manila, Marinduque, Quezon, Rizal, and Zambales. Except for Capiz and Leyte, all the other provinces have shown a higher percentage of literacy among the males during the last two censuses in 1960 and 1970.

Table III.16- LITERACY OF HOUSEHOLD POPULATION 10 YEARS OF AGE AND OVER BY SEX AND BY PROVINCE: 1960 and 1970

Province	Both sexes				Male				Female			
	Population 10 years old and over		Per cent literate		Population 10 years old and over		Per cent literate		Population 10 years old and over		Per cent literate	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
<b>PHILIPPINES</b>	<b>18,145,872</b>	<b>25,115,063</b>	<b>72.0</b>	<b>83.4</b>	<b>9,054,265</b>	<b>12,283,374</b>	<b>73.6</b>	<b>84.6</b>	<b>9,091,607</b>	<b>12,831,689</b>	<b>70.6</b>	<b>82.2</b>
Abra	79,118	104,698	69.3	79.0	39,567	50,920	74.6	83.4	39,551	53,778	64.1	74.8
Agusan del Norte	173,330	184,925	78.6	90.3	90,569	93,338	79.2	90.3	82,761	91,587	77.9	90.2
Agusan del Sur	153,517	184,655	68.2	78.8	73,870	59,560	68.8	80.1	79,647	96,007	67.6	78.2
Albay	341,131	449,978	74.1	87.0	171,106	223,099	75.8	87.6	170,025	226,879	72.5	86.4
Antique	164,248	202,441	64.4	77.5	79,562	96,594	65.0	77.4	84,686	105,847	63.9	77.6
Bataan	93,406	146,296	82.9	91.0	47,336	73,030	85.2	92.4	46,070	73,266	80.5	89.7
Batanes	7,563	8,062	81.4	92.1	3,656	4,085	88.0	95.0	3,907	3,977	75.3	89.1
Batangas	460,708	656,205	72.3	88.4	224,613	314,401	74.8	86.8	236,095	341,804	69.8	82.1
Benguet	-	177,522	-	79.9	-	87,161	-	84.3	-	90,361	-	75.6
Bohol	410,748	490,137	69.1	81.2	197,289	234,734	69.9	82.3	213,459	255,403	68.4	80.2
Bukidnon	122,034	263,800	63.9	78.4	64,784	136,153	65.9	79.2	57,250	127,647	61.6	77.6
Bulacan	382,181	585,169	85.6	93.5	187,377	278,945	88.0	95.0	195,104	306,224	83.3	92.2
Cagayan	293,362	395,254	70.4	80.8	147,797	196,925	73.1	82.8	145,565	198,329	67.6	78.8
Camarines Norte	120,233	172,124	89.9	92.2	62,385	86,910	91.1	92.5	57,848	85,214	88.7	91.9
Camarines Sur	541,680	630,859	77.1	87.6	275,526	310,973	78.9	88.8	266,154	319,886	75.3	86.5
Candigua	-	39,160	-	88.4	-	19,327	-	88.5	-	19,833	-	88.4
Capiz	205,530	270,325	61.7	76.6	101,039	129,611	61.6	76.5	104,491	140,714	61.8	76.6
Catanduanes	106,032	109,473	79.9	88.1	53,679	54,286	82.7	90.7	52,353	55,187	76.9	85.6
Cebu	259,202	369,414	83.7	90.3	127,189	177,912	85.4	91.8	132,013	191,492	82.0	88.9
Cebu	908,044	1,152,881	63.5	78.5	437,213	549,562	66.5	81.4	470,831	603,319	60.8	75.8
Cotabato	681,099	748,762	53.3	64.9	337,935	380,062	56.2	68.7	343,164	368,700	50.0	61.0
Davao del Norte	571,207	289,232	66.5	83.1	151,656	151,656	68.2	83.6	267,577	137,576	64.5	82.5
Davao del Sur	-	530,149	-	82.3	-	267,272	-	83.3	-	262,877	-	81.4
Davao Oriental	-	163,118	-	79.7	-	83,393	-	81.2	-	79,725	-	78.2
Eastern Samar	-	185,577	-	81.2	-	93,593	-	79.7	-	91,984	-	82.7
Isabela	-	61,412	-	50.6	-	29,654	-	56.3	-	31,758	-	45.3
Iloilo	207,042	253,569	71.3	79.9	99,083	119,748	75.0	82.6	107,959	133,821	67.8	77.6
Iloilo Sur	239,995	281,228	71.7	80.7	113,732	132,268	76.7	84.8	126,263	148,960	67.2	77.0
Iloilo	663,961	819,153	77.4	86.3	322,553	392,174	77.4	86.1	341,408	426,979	77.4	86.4
Isabela	284,622	430,080	73.0	81.9	145,592	217,591	75.3	83.0	139,030	212,489	70.6	80.8
Kalinga-Apayao	-	90,991	-	70.5	-	45,860	-	74.5	-	45,131	-	66.5
La Union	199,731	263,528	75.9	86.7	96,244	125,439	80.5	90.2	103,487	138,089	71.6	83.5
Laguna	310,021	484,192	83.6	92.1	154,176	233,658	85.6	93.5	155,845	250,534	81.7	90.8
Marikina	171,737	231,908	65.4	76.4	89,865	115,334	66.6	78.0	81,872	116,574	64.1	74.9
Marikina	258,277	282,364	73.1	83.4	136,151	142,315	73.7	81.2	122,126	140,049	72.4	79.5
Marikina	780,110	755,518	66.2	77.8	389,794	372,816	65.4	76.7	390,316	382,702	67.0	78.9
Marikina	827,170	992,438	91.5	96.4	389,113	467,287	92.8	97.1	438,057	525,151	90.2	95.8
Marikina	75,167	97,492	78.9	90.8	37,718	48,431	80.7	91.6	37,449	49,061	77.1	90.0
Marikina	212,530	319,398	59.8	78.1	107,057	156,969	60.6	79.1	105,473	162,329	58.9	77.2
Misamis Occidental	166,633	220,949	76.4	82.5	83,384	109,237	76.6	82.4	83,249	111,712	76.3	82.6
Misamis Oriental	250,849	317,370	77.0	85.8	128,015	157,920	76.8	86.0	122,834	159,450	77.2	85.6
Mountain Province	294,478	63,653	52.5	61.5	147,396	30,889	59.1	70.1	147,082	32,764	46.0	53.4
Negros Occidental	875,968	1,015,978	67.8	81.8	446,812	495,365	68.0	81.6	429,156	520,613	67.6	82.1
Negros Oriental	397,386	494,094	54.7	72.8	199,054	242,933	55.8	72.8	198,332	251,161	53.5	72.8
Northern Samar	-	199,570	-	76.3	-	100,402	-	75.5	-	99,168	-	77.2
Nueva Ecija	403,201	575,210	80.0	88.9	200,316	280,441	82.5	90.7	202,885	294,769	77.6	87.2
Nueva Vizcaya	89,181	150,986	70.3	80.2	45,024	75,988	72.7	81.9	44,157	74,998	67.9	78.4
Occidental Mindoro	56,260	95,179	76.9	86.8	29,597	48,508	77.8	87.3	26,663	46,671	75.9	86.2
Oriental Mindoro	145,526	188,944	72.3	86.9	74,632	109,215	73.6	88.1	70,894	109,699	70.9	85.6
Palawan	110,298	155,585	59.7	77.2	60,169	80,721	63.3	79.5	50,129	74,864	55.3	74.8
Pampanga	408,845	600,626	78.7	89.2	201,252	290,531	81.8	91.2	207,593	310,095	75.6	87.4
Pangasinan	764,341	967,838	77.9	86.0	373,340	469,307	80.7	88.2	385,001	498,531	75.2	84.0
Quezon	425,442	668,248	85.0	91.7	218,391	333,468	86.2	92.4	207,051	334,780	83.8	91.0
Rizal	1,008,346	2,013,629	89.6	95.8	481,008	947,399	91.2	97.0	527,338	1,066,230	88.1	94.8
Romblon	84,468	111,603	68.1	82.9	41,185	53,532	69.9	84.2	43,283	58,071	66.4	81.8
Western Samar	578,750*	294,332	64.0*	73.7	295,933*	148,489	63.4*	72.2	282,817*	145,843	64.7*	75.1
Sorsogon	228,201	278,067	79.8	87.9	117,309	140,712	80.8	88.7	110,892	137,355	78.7	87.0
South Cotabato	-	306,802	-	80.1	-	156,471	-	81.4	-	150,331	-	78.8
Southern Leyte	-	171,479	-	81.1	-	84,974	-	80.0	-	86,505	-	82.1
Sulu	223,901	288,161	28.2	41.7	112,698	139,968	33.0	47.6	111,203	148,193	23.4	36.2
Surigao del Norte	241,866	162,240	74.7	83.8	120,750	79,222	73.9	82.8	121,116	83,018	75.4	84.8
Surigao del Sur	-	174,841	-	83.4	-	86,778	-	82.7	-	88,063	-	84.0
Tarlac	282,854	383,120	75.8	87.4	140,461	188,397	78.2	89.2	142,393	194,723	73.4	85.8
Zambales	141,771	237,481	86.5	93.1	69,572	114,960	88.7	94.4	72,199	122,521	84.4	92.0
Zamboanga del Norte	181,652	270,679	58.5	72.7	92,835	135,990	59.3	73.7	888,817	134,689	57.7	71.7
Zamboanga del Sur	478,719	689,455	53.0	72.5	248,282	340,980	54.5	74.2	230,437	348,475	51.5	70.9

\* Includes Eastern and Northern Samar.

Source: Bureau of the Census and Statistics, Population Division.

Table III.16A- LITERACY OF HOUSEHOLD POPULATION 10 YEARS OF AGE AND OVER BY SEX AND BY REGION: 1960 and 1970

Region	Both sexes				Male				Female			
	Population 10 years old and over		Per cent literate		Population 10 years old and over		Per cent literate		Population 10 years old and over		Per cent literate	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
PHILIPPINES	18,145,872	25,115,063	72.0	83.4	9,054,265	12,283,574	73.6	84.6	9,091,607	12,831,489	70.6	82.2
REGION I												
Manila	827,170	992,438	91.5	96.4	389,113	467,287	92.8	97.1	438,057	525,151	90.2	95.8
REGION II												
Iloilo & Mt. Province	1,020,364	1,296,601	66.7	78.4	496,022	621,939	71.7	82.4	524,342	674,662	62.0	74.7
REGION III												
Cagayan Valley & Batanes	674,728	984,382	71.6	81.3	342,069	494,589	74.2	82.8	332,659	489,793	69.0	79.7
REGION IV												
Central Luzon	2,475,199	3,495,740	80.0	89.2	1,219,354	1,695,611	82.6	90.9	1,255,845	1,800,129	77.4	87.5
REGION V												
Southern Luzon & Islands	2,851,570	4,758,858	82.4	91.5	1,407,463	2,293,313	84.0	92.8	1,444,107	2,465,545	80.8	90.4
REGION VI												
Iloilo and Masbate	1,549,807	1,939,799	75.7	86.4	787,062	972,949	77.2	87.4	762,745	966,850	74.0	85.4
REGION VII												
Western Visayas	2,147,692	2,604,155	70.0	82.2	1,065,021	1,255,407	70.1	82.1	1,082,671	1,348,748	69.8	82.2
REGION VIII												
Eastern Visayas	3,075,038	3,743,608	63.9	77.7	1,519,283	1,827,503	64.7	78.2	1,555,755	1,916,105	63.2	77.3
REGION IX												
Northern Mindanao	1,387,726	1,993,124	73.4	79.9	713,498	999,184	73.8	80.6	674,228	993,940	73.0	79.2
REGION X												
Southern Mindanao and Sulu	2,136,578	3,286,358	54.6	71.7	1,115,380	1,655,792	57.0	74.0	1,021,198	1,630,566	51.9	69.3

Source: Bureau of the Census and Statistics, Population Division.

## THE NATIONAL CULTURAL MINORITIES

The cultural minorities, estimated to be about 3 million in number in 1970, form almost eight percent of the Philippine population. These are the ethnic groups who were least influenced by the waves of migrants who have successively visited our shores, in terms of culture, religion, and government. While the culture of the Filipino majority has been strongly modified by the Euro-American and North Atlantic influences, and while their lives are guided entirely by the Euro-American based law prevailing in the Philippines, these ethnic groups continue to have a culture which differs but a little from the common Southeast Asian peninsula and island civilization. Their lives have been guided by their "ADAT" or native custom law although somewhat inhibited by the laws prevailing in the Philippines.

Formerly referred to as the non-christian population of the Philippines, the national cultural minorities include Muslim or Mohammedan and several pagan groups which, according to experts, could be classified into three main racial types: (1) Negrito, (2) Indonesian, and (3) Malayan. These people originally settled in the lowlands and fertile valleys, but the pressure of the migrants caused them to move into the hinterlands. Majority of them inhabited forested hills and mountains which made them known as "Highlanders" in contrast to the lowlanders or Christians.

The Commission on National Integration, the government agency created in 1957 and charged with all matters pertaining to these ethnic groups, officially declared the following as the national cultural minorities.<sup>2/</sup>

Aeta (Negrito)	Batak
Apayaw or Isneg	Bilaan
Ata or Ataas	Bontok
Badjaw	Bukidnon
Bagobo and Giangga	Dulangan
Banawaw-on	Dumagat
Gaddang	Molbuganon
Ibatan	Maranaw
Ifugao	Mundo, Montesco
Igorot	Palawano
Iranum, Ilanum	Pullunmaun
Inibaloi, Nabaloi, Benguet	Remontado
Kalagan	Samal
Isbangunun	Sangil
Kalibugan	Surok, Sulok
Kalinga	Sulod, Montesco
Karakanai	Subanon
Kanuy, Kene	Tagabili
Kulaman	Tagakaolo
Ligadbatang	Tagbanua
Magindanaw	Talandig
Mamanwa	Taw-sug
Mangguangan	Tinggian or Ineg
Mandaya	Tiruray
Mangyan	Todag
Manobo, Magahat	Yakan

Although there exist some linguistic groups such as the Agutainon (Palawan), Bantonun (Romblon), Cagayanon (Palawan), Capul (Samar), Gaddang (partly in Nueva Vizcaya), Hantikanon (Antique), Ibatan (Batanes), Ibanag and Itawis, Isinay, Kalamianaw (partly in Palawan), Palananum (Isabela), Ternatan (Cavite) and Yogad (Isabela), these groups should not be confused with our cultural minorities inasmuch as language is but one aspect of culture.

Table III.17 shows the population of selected cultural minorities in the Philippines as estimated by the 1960 census. The 1970 figures were computed, using the 1970 population of the Philippines, as well as the ratio of the number of cultural minorities to the total 1960 Philippine population, inasmuch as the data on the cultural minorities are not yet available. However, it is expected that the 1970 population of these minorities as estimated by the census will be very near the projected estimates.

<sup>2/</sup> They are also Filipinos; 10 years with the Cultural Minorities. Clavel, Leothiny S. UP, Department of Anthropology, 1967.

Table III.17—ESTIMATED POPULATION OF SELECTED CULTURAL MINORITIES BY PROVINCE: 1960 AND 1970<sup>1/</sup>

Cultural Minority	1960 Census	1970 Projections
Magindanaw	358,851	485,996
Taw-sug	307,584	416,552
Ilanun	268,141	363,140
Maranaw	150,674	204,039
Samal	126,178	170,876
Bilaan	94,738	128,286
Subanon	81,829	110,824
Bentok	78,174	105,871
Ifugao	74,938	101,469
Kankanaï	71,363	96,664
Bukidnon	70,586	95,600
Inibaloi	63,080	85,438
Yakan	58,149	78,762
Manobo	46,783	63,354
Kalinga	46,651	63,171
Apayaw	33,063	44,792
Bagobo	31,737	42,994
Tiruray	26,344	35,694
Mandaya	24,346	32,979
Palawano	18,951	25,679
Gaddang	13,777	18,672
Kalagan	13,429	18,196
Badjaw	12,655	17,132
Tagakaolo	11,019	14,931
Ata	9,360	12,693
Tagabili	8,689	11,776
Banawaw-on	8,033	10,895
Mangyan	6,712	9,098
Tinggian	6,331	8,584
Tagbanua	5,489	7,447
Ilongot	3,582	4,842
Negrito	2,776	3,742
Kalibugan	2,404	3,265
Molbuganon	2,174	2,935
Sangil	1,841	2,495
Dumagat	1,624	2,201
Ibatan <sup>2/</sup>	1,619	2,201
Batak	542	734
Kulaman	471	624
Mangguangan	457	624
Mamanwa	151	220
Pullun-maun	29	37
Kene	24	37

<sup>1/</sup> Figures are most likely to be underenumerated inasmuch as cultural minorities have the tendency to shy away from lowlanders.

<sup>2/</sup> Excludes Ibatans of Batanes inasmuch as they are considered as linguistic minorities.

Source: Bureau of the Census and Statistics, Population Division.

The Magindanaws comprise the largest ethnic group among the minorities, claiming about 17 percent of the minorities population, with the Taw-sugs ranking second, having 14 percent as its share. The Ilanums, Maranaws, and Samals compose three of the more numerous groups with 12, 7, and 6 as their percentage shares, respectively. On the other hand, ethnic groups which are relatively few in number are the Kenes, Pullunmauns, and the Mamanwas.

Table III.12—DISTRIBUTION OF THE CULTURAL MINORITIES IN MAJOR PROVINCES OF THE PHILIPPINES: 1960<sup>1/</sup>

Province or Minority	1960 Census	Province or Minority	1960 Census
<b>Total</b>	<b>2,147,047<sup>2/</sup></b>		
Cotabato	492,471	Ata	203
Magindanaw	312,203	Bukidnon	200
Bilaan	78,833	Tagakaolo	136
Tiruray	26,253	Ilongot	106
Ilanum	17,449	Inibaloi	102
Bagobo	12,070	Others	295
Manobo	11,312	Davao	112,473
Kalagan	11,067	Mandaya	20,469
Tagabili	8,416	Magindanaw	18,053
Maranaw	6,382	Bagobo	17,951
Mandaya	2,891	Manobo	16,274
Samal	2,164	Bilaan	15,645
Tagakaolo	1,169	Tagakaolo	9,077
Taw-sug	1,128	Ata	7,013
Sangil	626	Samal	2,508
Others	508	Taw-sug	2,293
Lanao del Sur	357,599	Sangil	1,125
Ilanum	243,700	Kalagan	829
Maranaw	110,085	Maranaw	293
Magindanaw	2,802	Ifugao	227
Taw-sug	325	Ilanum	143
Ibatan	317	Badjau	130
Bukidnon	158	Others	443
Banawan-on	132	Bukidnon	71,256
Others	80	Bukidnon	63,836
Mountain Province	321,650	Manobo	4,994
Bontok	75,543	Magindanaw	663
Ifugao	72,279	Bogobo	497
Kankanaei	59,230	Ibatan	465
Inibaloi	55,734	Ilanum	267
Kalinga	44,492	Inibaloi	170
Apayaw	11,858	Others	364
Gaddang	1,907	Zamboanga del Norte	54,22
Ata	191	Subanon	41,718
Ilongot	102	Samal	5,379
Others	314	Taw-sug	1,647
Sulu	319,768	Magindanaw	1,555
Taw-sug	238,386	Kalibugan	1,354
Samal	68,793	Kalagan	997
Badjau	12,232	Bukidnon	688
Dumagat	102	Ilanum	580
Others	255	Dumagat	207
Zamboanga del Sur	217,766	Others	96
Takan	57,881	Lanao del Norte	44,004
Taw-sug	57,744	Maranaw	33,401
Samal	46,263	Magindanaw	5,387
Subanon	37,642	Ilanum	5,044
Magindanaw	14,730	Others	172
Kalibugan	1,055	Palawan	32,820
Ilanum	468	Palawane	18,708
Dumagat	389	Tagbanwa	5,152
Maranaw	298	Taw-sug	5,045
Badjau	274	Molbuganon	2,104

Table III.12.—DISTRIBUTION OF THE CULTURAL MINORITIES IN MAJOR PROVINCE  
OF THE PHILIPPINES: 1960/ - Continued

Province or Minority	1960 Census	Province or Minority	1960 Census
Banawa-on	1,096	La Union	7,674
Batak	227	Kankanaï	6,238
Magindanaw	139	Inibaloï	775
Samal	134	Bontok	531
Ilanum	105	Others	130
Others	150	Ilocos Sur	6,017
Abra	25,063	Kankanaï	5,446
Apayaw	18,670	Apayaw	412
Tinggian	6,199	Others	159
Others	194	Misamis Oriental	5,870
Agusan	18,689	Bukidnon	5,264
Manobo	13,050	Bagobe	254
Banawa-on	3,518	Samal	128
Mandaya	858	Others	224
Bagobe	733	Romblon	3,258
Ilongot	150	Banawa-on	3,180
Negrite	111	Others	78
Others	269	Risal	3,027
Nueva Vizcaya	14,020	Manobo	744
Gaddang	5,229	Magindanaw	722
Inibaloï	4,953	Ibatan	321
Ilongot	1,933	Taw-sug	166
Ifugao	1,662	Ifugao	157
Others	243	Samal	105
Isabela	8,826	Others	812
Gaddang	6,086	Misamis Occidental	2,511
Kalinga	1,510	Subanon	2,077
Ata	685	Magindanaw	222
Ifugao	147	Bukidnon	201
Kankanaï	100	Others	11
Others	298	Other Provinces	28,064

1/ The minorities enumerated are those having a reported population of more than 100.

2/ Includes only those reported in the 1960 census (based on their mother tongues).

Source: Bureau of the Census and Statistics, Population Division.

Of these ethnic groups 79 percent is concentrated in the islands of Mindanao and Sulu, with those in Mindanao forming about 64 percent. Twenty-three percent of the minorities population inhabit Cotabato, of which 63.4 percent are Magindanaws. About 19 percent settle in Lanao, while approximately 17 percent is in Lanao del Sur. The Ilanums form a major portion of 68 percent, followed by the Maranaws with 31 percent, among those in Lanao del Sur. The small fraction of about 2 percent claimed by Lanao del Norte is comprised mostly by Maranaws. The remaining portion of the Mindanao share is distributed in varying amounts among the provinces of Zamboanga del Sur, Davao, Bukidnon and Zamboanga del Norte with about 10, 5, 3, and 2.5 percent, respectively. The Yakans, Taw-sugs and Samals comprise a major portion of the Zamboanga del Sur tribes. The Davao minorities, on the other hand, are mostly Mandayas, Magindanaws, Bagobos, Manobos and Bilaans. Agusan, Misamis Oriental, and Misamis Occidental have less than one percent each of the total population. Noteworthy is the fact that the Magindanaws are found in almost all the Mindanao provinces. Living in the islands at the southern most portion of Mindanao are the Sulu minorities, which comprise about 15 percent of the total minority populace. The Taw-sugs and Samals form a major portion of these sea-faring tribes.

Although a major portion of the cultural minorities inhabits the South, the remaining fraction finds the environs of the North conducive to their settlement. The Mountain Province is inhabited by about 15 percent of the total cultural minorities, with the Bontoks, Ifugacs, Kankanaïs, Inibaloïs, and Kalingas forming about 96 percent. In Abra settles a little more than one percent 74 percent of which are Apayaos and about 25 percent, Tinggians. Nueva Vizcaya, Isabela, La Union and Ilocos Sur have less than one percent each of the minorities population. The Gaddangs dominate the Nueva Vizcaya and Isabela tribes while the Kankanaïs form the major group in La Union and Ilocos Sur.



Each of these ethnic groups exhibits varying degrees of cultural development from the more primitive and backward Aetas to the more sophisticated Maranaws. They have their own unique social organizations, art, religion, and which have been slightly modified through contact with neighboring tribes and their continuous struggle for existence in the wilderness.

Driven by their instinct of gregariousness, these ethnic groups generally live in their own small society which recognizes the leadership of a group of elders or of a headman. The natives usually gather the advice of their elders or headman whenever conflicts arise, although affairs such as marriages and courtships are also referred to them. Crimes are settled by their recognized leaders, with the guilty party accorded the punishment commensurate to the weight of the crime committed. Conflicts between tribes are settled by the headman of the respective tribes.

Human nature impelled these ethnic groups to build their houses in places where there is an abundant supply of food while the others transfer from time to time, whenever they feel a shortage of food in the place. However, some have learned to establish permanent settlements such as the Mamanwas and other ethnic groups in the Mountain Province. Although primitive in their ways, they do not depend entirely on nature to live, for they know how to plant. They generally do not have permanent farm lands, and most still practice monacidism (the practise of transferring to another place after one planting, where they open-up and clear new grounds for their planting purpose). Among the Muslims, for instance, farming is a part of their daily existence both by tradition and by practice. Root crops form a major portion of the diet of most ethnic groups although rice farming is also resorted to by some groups, a few of which are the Atas, Dumagats, and Bilaans. Some groups such as the Maranaws and the sea-faring tribes of Sulu and Palawan choose to live near river banks and coastal areas. Fishing is also one of their sources of livelihood. Majority of them do not employ the use of fishing nets. A bow and arrow or a spear usually makeup their fishing gear although a few such as the Mamanwas use fish traps. Having lived in game inhabited areas, they have attained skill and proficiency in hunting. Most of them have acted as hunting guides to lowlanders.

These people are generally superstitious. All aspects of their lives are governed entirely by their fear of spirits and gods. To them diseases and all forms of sickness are caused by evil spirits and, as such they do everything to ward off these evil spirits. Cures of diseases are practically unknown to most of them, although some groups have "herbolarios" who use parts of plants and trees and extracts thereof as a cure for certain ailments. Mortality is therefore expected to be high among these groups of people. In most groups, mothers give birth to their children alone and wash their babies and themselves in rivers and nearby creeks, making them more liable to incur all sorts of infection. This situation results in high infant mortality. Cases of abortion are also common inasmuch as the women continue to engage in hard work even when about to deliver. Though mortality is high among the infants who manage to survive in their early years, the children grow up sturdy and healthy.

Among some groups such as the Ilongots, very few couples have four children. The usual number of children is from two to three. It has been found that married Ilongot women use native contraceptives known as "Dalum" in Ilongolandia which are taken from the roots of a certain tree, and which are very much stronger than commercially-prepared ones. It is therefore of remarkable interest that they, too, have concepts of family planning.

Marriage is generally monogamous with the exception of the Muslim, or Mohammedan groups. Acceptable marriage practices are defined by their "Adat" or native custom. Mutual agreement between the bride and the bridegroom has been the most common practice although cases of child betrothal and elopement are observed to a limited extent. In most ethnic groups, the paying of a bride price is still practiced, with the young ladies commanding higher prices than the old and widowed ones. Note that in some ethnic groups such as the Mamanwas re-marriage is allowed to widows and widowers, although in-laws are considered to be within the range of marriage prohibition.

Among married couples, the wife is obliged to give birth and to be industrious and sincere. Cases of husbands giving back their wives to their parents for neglect of duty are very common especially among the Ilongos. Either party however, could be divorced or returned to the parents for failure in the performance of his or her duties. The women are generally expected to do the household chores, gather edible and medicinal plants, fish, and sometimes hire themselves out for cleaning camote fields or as a domestic help. The men, on the other hand, hunt game for their meat supply, fish, plant, and build and repair their houses.

Their lives, however, do not revolve around this daily sphere of activities for they also have some feasts which the entire village observes. Marriage between natives and religious events for the purpose of giving offerings to spirits are occasions most commonly observed by means of expensive and elaborate feasts. Other than these occasions, the natives busy themselves with some form of handicrafts such as the manufacture of baskets, mats and traps. Their production is not only limited for their own use but also for trade with the lowlanders. Those made by some groups, such as the tribes in Benguet and the Bataks, are even exported. The wood carvings of the ethnic groups in Mountain Province exhibit delicate craftsmanship. Printing on bark cloth is an art still practiced by the Apayaos and other Northern Palawan tribes. Undoubtedly, however primitive they may be, each tribe expresses its artistic inclinations in the production of goods either for trade or for their own use.

No doubt the cultural minorities today are in the process of assimilating Western culture as reflected in some aspects of their ways such as the changes in their manner of dressing and in their gradual willingness to be educated. These changes have been the result of countless efforts and unending government initiative to incorporate them into the body politic and the society as a whole. But as it is, their integration to the society has been beset by many problems, foremost of which are:

- 1) The secessionist movement of a great number of Muslims;
- 2) The land-grabbing practices of unscrupulous Christians;
- 3) The meager education of the minorities;
- 4) The absence of permanent means of livelihood in many communities of the minorities;
- 5) The lack of faith of the minorities in the government and its intentions and ability to uplift their economic and social life;
- 6) The strong ethnocentrism of the minorities;
- 7) The breakdown of peace and order in provinces where minorities live;
- 8) The indifference of the majority towards the welfare and interests of the minority groups, and
- 9) The poor health and sanitation of the minorities.

Society and government should therefore work hand in hand to win the trust of the minorities in order to effect the process of integration.

With the creation of the Commission on National Integration and the Office of the Presidential Assistant on National Minorities (PANAMIN) the plight of the cultural minorities had been given urgent and due concern. Settlement projects, such as the 4,224 hectares released for the cultural minorities in Cotabato and another 200 hectares for the Ilongots in Nueva Vizcaya, appropriated land for each family where they could farm and engage in piggery and poultry. Modern farming methods have also been introduced among them such that those who were originally food gatherers and hunters now engage in self-help agriculture. The Atas of Isabela and the Negritos of Negros Occidental are but a few to experience the change. The Bataks of Palawan even engage in planting miracle rice now. In addition to settlement projects, legal aid is given to minorities who have been victims of various forms of injustices and land acquisition by a new section in the Bureau of Lands. Furthermore, the rice and corn program of the Department of Agriculture includes the cultural minority inhabited areas of Cotabato, Oriental Mindoro, Lanao del Norte and Sur, Zamboanga del Norte and Sur, Davao del Norte, Davao Oriental, Ifugao, Kalinga-Apayao, Sulu, Surigao del Norte and Sur, as priority areas.

Realizing that education and training would bring about effective changes in the attitude and ways of the minorities, proper measures were taken by the Commission on National Integration and the PANAMIN to educate the minorities. Prefabricated schools, numbering about 925, were set up in several Muslim provinces and cities. In Isabela and Negros Occidental, school houses were also set up for this purpose. Scholarship grants are also offered annually to these minorities, and the percentage of graduates has been increasing as they realize the true value of education. In an effort to develop minority-intergroup relations, the Commission on National Integration fields exchange scholars representing various regions of the country, as legally provided for by R.A. No. 1888. Those from the North are sent to the South and vice-versa to conduct lectures on their respective cultures.

However, it is not only the government which has taken active part in this process of integration. The church has also been known widely for sending missionaries to the hinterlands in an effort to convert these minorities. Lately, however, the concern of the church was not only religious in nature, as shown by the move of the Catholic bishops to assist the cultural minorities by activating legal assistance centers in their dioceses to help ignorant tribesmen secure resettlement areas and obtain land titles. Civic action groups from universities and colleges spend their vacations to educate the minorities and teach them proper health habits.

With this growing concern of our people, it would not be surprising if, after a span of years, the minorities will have assimilated the culture, religion, and government of the majority.

## CURRENT POPULATION ESTIMATES

Accepted methods of measurement such as censuses cannot be performed frequently to cover a wide variety of information. For this reason, population estimates which provide a quantification of facts are devised. These estimates are needed for planning future developments in various economic and social fields. They form the bases for vital statistics rate, per capita figures of production and trade, and the calculation of costs of certain economic and social legislations. They have been proven recently to be of considerable use for estimating labour force and other population characteristics of data collected in sample surveys. Estimates could also be used as a check to determine the accuracy of the statistics gathered using accepted methods of measurement. Furthermore, these estimates would help to avoid the risk of unexpected surprises, haphazard guesses, or impractical policies adopted without sound bases.

Based on a 3.01 percent annual rate of growth, obtained from the census counts of 1960 and 1970, Table III.19 shows estimates, of the population for the intercensal years, by province. These estimates, having been computed on the basis of the census count of 6 May 1970, could be used for reference purposes only.

The provinces that exhibited tremendous population increases during the intercensal period relative to their estimated 1960 population are Bukidnon with an estimated increase of 48.72 percent, Rizal with 44.65 percent, Davao Oriental with 42.37 percent and Agusan with 42.16 percent. These increases may be attributed to high birth rates accompanied by low death rates, as well as the net effects of migration in the said places. On the other hand, Catanduanes, Mountain Province and Batanes experienced very slight increases, 3.08, 7.52, and 9.09 percent, respectively.

With the 1960 census counts compared with those using the 1970 census results, it is evident that there are very slight deviations between the two sets of data for the same year. The wide discrepancies, such as those shown by the provinces of Rizal, Davao Oriental, Cotabato, Cebu, and Quezon, may be attributed to unexpected demographic events during the intercensal years, either an exceptional number of births in the said places which were not otherwise accounted for during the 1960 census.

Table III.19- ESTIMATED POPULATION OF THE PHILIPPINES BY PROVINCE: 1960 to 1969

Province	1960 (Feb. 15)	As of July 1 (in thousands)									
		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
<b>PHILIPPINES</b>	<b>27,067,685</b>	<b>27,387</b>	<b>28,212</b>	<b>29,062</b>	<b>29,937</b>	<b>30,839</b>	<b>31,768</b>	<b>32,725</b>	<b>33,711</b>	<b>34,726</b>	<b>35,772</b>
Abra	115,193	116	119	122	124	127	130	133	136	140	143
Agusan del Norte	177,333	180	189	197	206	216	225	235	246	257	268
Agusan del Sur	93,677	96	102	109	116	124	132	140	148	157	166
Aklan	226,232	228	231	235	238	242	246	249	253	257	260
Albay	514,980	520	534	548	563	578	593	609	625	642	659
Antique	236,405	240	245	250	254	259	264	269	274	280	285
Bataan	145,323	147	153	159	166	172	179	186	194	201	209
Batanes	10,309	10	10	11	11	11	11	11	11	11	11
Batangas	681,414	689	710	732	754	777	801	825	850	876	903
Benguet	183,657	186	193	200	207	214	222	230	238	247	256
Bohol	592,194	596	604	614	623	632	640	649	658	667	675
Bukidnon	194,368	201	218	236	256	276	297	319	342	367	392
Bulacan	555,819	564	588	612	637	663	690	718	747	777	809
Cagayan	445,289	450	462	474	486	499	512	526	540	554	569
Camarines Norte	186,091	190	197	203	210	217	224	231	239	247	255
Camarines Sur	819,565	824	837	850	862	875	888	900	913	925	938
Canigui	44,717	45	46	47	48	49	49	50	51	52	53
Capiz	315,079	318	325	332	339	347	355	363	371	379	387
Catanduanes	156,329	157	158	159	159	160	161	161	162	162	162
Cavite	370,138	393	407	420	433	447	461	476	491	507	523
Cebu	1,332,847	1,343	1,370	1,399	1,427	1,456	1,485	1,515	1,546	1,576	1,607
Cotabato	134,360	147	159	171	184	197	210	223	236	250	263
Davao del Norte	262,881	268	283	298	314	330	348	366	385	404	425
Davao del Sur	477,511	506	530	554	580	607	634	663	693	724	757
Davao Oriental	132,393	136	145	155	165	176	187	198	210	223	236
Eastern Samar	237,747	239	242	246	249	252	256	259	262	265	268
Iligan	76,738	77	79	80	82	83	85	86	88	90	91
Ilocos Norte	287,333	293	295	300	305	311	316	322	327	333	339
Ilocos Sur	338,058	340	345	349	354	359	363	368	373	377	381
Iloilo	900,206	973	992	1,011	1,030	1,050	1,069	1,089	1,109	1,130	1,150
Isabela	422,062	448	466	483	502	521	541	562	583	605	628
Kalinga-Apayao	89,528	91	95	99	103	107	112	117	121	126	132
La Union	293,330	296	303	310	318	326	333	341	350	358	366
Laguna	472,064	479	498	518	538	559	581	604	628	652	677
Lanao del Norte	270,603	273	280	287	295	302	310	318	326	334	343
Lanao del Sur	373,327	381	388	395	403	410	418	426	433	441	449
Leyte	703,304	709	713	718	723	728	733	738	743	748	753
Manila	1,120,611	1,145	1,164	1,183	1,202	1,220	1,239	1,258	1,277	1,296	1,315
Marikina	114,586	116	118	121	124	127	129	132	135	138	141
Masbate	325,971	341	354	367	382	396	411	427	443	460	478
Mountain Province	248,571	251	257	263	270	277	284	291	298	306	313
Misamis Oriental	345,898	348	359	370	382	394	407	419	433	446	460
Mountain Province	85,866	86	87	88	89	89	90	91	92	92	93
Negros Occidental	1,332,383	1,339	1,357	1,374	1,391	1,409	1,426	1,442	1,459	1,475	1,491
Negros Oriental	577,761	602	613	624	635	647	658	670	681	693	705
Northern Samar	261,424	263	267	272	276	280	285	289	294	298	302
Nueva Ecija	608,362	616	636	658	680	702	726	750	775	801	828
Nueva Vizcaya	136,090	141	147	155	162	170	178	186	195	204	214
Occidental Mindoro	84,716	86	91	96	101	107	113	119	125	131	138
Oriental Mindoro	228,398	232	240	249	258	267	277	287	297	308	319
Palawan	162,569	165	171	178	184	191	198	206	213	221	229
Pampanga	617,259	626	650	675	701	728	756	785	816	847	879
Pangasinan	1,124,144	1,133	1,157	1,181	1,206	1,231	1,256	1,282	1,309	1,335	1,363
Quezon	653,426	663	691	719	749	779	811	844	878	914	951
Rizal	1,456,362	1,496	1,607	1,723	1,844	1,972	2,105	2,245	2,391	2,544	2,703
Romblon	131,658	133	136	139	142	146	149	153	156	160	164
Samar	347,771	350	358	365	373	380	388	396	404	412	420
Southern Leyte	209,608	211	215	219	223	227	231	235	239	244	248
South Cotabato	294,759	300	314	328	343	359	376	394	411	430	449
Sulu	326,898	330	339	348	357	366	376	386	396	406	416
Surigao del Norte	194,981	196	200	204	209	213	217	222	226	230	235
Surigao del Sur	165,016	168	175	183	192	201	210	219	229	239	249
Tarlac	426,647	431	442	454	467	479	492	505	519	533	547
Western Samar	368,823	371	378	385	392	399	407	414	421	428	436
Zambales	213,442	217	228	239	250	262	275	288	301	315	330
Zamboanga del Norte	281,429	285	296	307	319	331	343	356	369	383	397
Zamboanga del Sur	742,404	751	776	802	828	856	884	913	943	974	1,006

1/ The estimated totals were computed from the census count of May 6, 1970 at 3.01 percent annual rate growth. The ratios of each province was calculated linearly and then pro-rated to sum up to 1.

Source: Bureau of the Census and Statistics, Population Division.

TABLE III. 1960- ESTIMATED POPULATION OF THE PHILIPPINES BY REGION: 1960-1969

R E G I O N	1960	As of July 1 <sup>1</sup> (in thousands)									
	(Feb. 15)	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
PHILIPPINES	27,087,685	27,387	28,212	29,062	29,937	30,839	31,768	32,725	33,711	34,726	35,772
REGION I											
Manila		1,138,611	1,145	1,164	1,183	1,202	1,220	1,239	1,258	1,277	1,296
1,315											
REGION II											
Iloilo & Mt. Province		1,459,753	1,481	1,516	1,548	1,582	1,616	1,651	1,688	1,725	1,763
1,801											
REGION III											
Cagayan Valley & Batanes		1,035,750	1,049	1,085	1,123	1,161	1,201	1,242	1,285	1,329	1,374
1,422											
REGION IV											
Central Luzon		3,670,996	3,734	3,854	3,978	4,107	4,237	4,374	4,514	4,661	4,809
4,965											
REGION V											
Southern Luzon and Islands		4,231,973	4,309	4,521	4,743	4,972	5,212	5,462	5,723	5,993	6,275
6,568											
REGION VI											
Bicol and Marikina		2,362,717	2,382	2,438	2,492	2,549	2,606	2,665	2,724	2,786	2,848
2,912											
REGION VII											
Western Visayas		3,209,363	3,231	3,296	3,341	3,394	3,453	3,509	3,565	3,622	3,681
3,737											
REGION VIII											
Eastern Visayas		4,563,768	4,594	4,672	4,757	4,837	4,920	5,003	5,087	5,171	5,256
5,341											
REGION IX											
Northern Mindanao		2,111,291	2,139	2,214	2,291	2,377	2,462	2,549	2,639	2,732	2,829
2,928											
REGION X											
Southern Mindanao & Sulu		3,272,873	3,323	3,462	3,606	3,756	3,912	4,074	4,242	4,415	4,595
4,783											

<sup>1</sup>/ The estimated totals were computed from the census count of May 6, 1970, at 3.01 per cent annual rate growth. The ratios of each province was calculated linearly and then pro-rated to sum up to 1.

Sources: Bureau of the Census and Statistics, Population Division.

## POPULATION PROJECTIONS

Proper consideration of future population trends is required in order to formulate rational and realistic economic and social plans. Estimates of future population trends or projections, work on the basis of several assumptions. Whenever these assumptions exist, the projected estimates are expected to be very close to actual figures. However, any alteration on the conditions defined would tend to disturb the trend of the estimates, thus resulting to either slight over-estimation or underestimation. It is for this reason that a high degree of accuracy is difficult to attain whenever projecting future population is attempted for periods as long as 30 years.

Inasmuch as the future course of the population is uncertain owing to socio economic, cultural, and other factors, three alternative sets of projections were devised under different assumptions namely; high, medium or low, any one of which could be used depending on one's needs. The specific assumptions used in preparing high, medium or low projections are as follows:

1. High projections — the level and pattern of fertility estimated for the period 1965-1970 (the number of children born per woman at the end of the reproductive period will be about 6.0) will remain unchanged throughout the period while mortality will decline slowly.
2. Medium projections — the fertility will decline from 1970 but less rapidly than it was assumed in low projections so that the average number of children born per woman at the end of the reproductive years will be about 4.3 by 1995-2000 while mortality declines slowly.
3. Low projections — there will be a gradual decline in fertility beginning 1970 (the average number of children per woman will decline from 6.0 in 1965-1970 to 2.7 in 1995-2000) while mortality declines slowly.

According to these projections, the level of birth rate for high, medium and low projections for the period 1995-2000, will be about 40.3, 31.4 and 21.8 per thousand population, respectively, with corresponding death rates of 8.2, 7.0 and 6.3. The rate of population increase will be 3.2 per cent, 2.44 per cent and 1.55 per cent per annum for high, medium and low projections, respectively by the year 1995-2000.

The ratio method which takes into account the inadequacy of detailed data and all other components of population change such as migratory movements which are to occur during short periods of time, has been used to project the population for sub-national areas (such as the provinces). A major assumption utilized in this method is that the relative size of the population in particular areas to that of whole area changes at the same ratio as that observed in 1960-1970. Although this assumption is often not satisfied, the trends observed in the past may be used as an important indication of any possible changes in the future.

Although three different sets of population projections under three different assumptions are presented here, it is very likely that the future population of the Philippines will be closer to the figures estimated by medium projections, if the expected fertility and mortality trends are to be considered. However, it is still possible for the population to be closer to the high or low projections, depending upon a rapid or slow rate of decline in fertility for the next 30 years.

According to the medium projections, the population of the Philippines is expected to increase from 36.684 million in 1970 to 49.961 million in 1980, 65.634 million in 1990 to 84.143 million by the year 2000. The population of the Philippines is therefore expected to be two and one third times its 1970 population by the year 2000.

Table III.20—PROJECTED TOTAL POPULATION OF THE PHILIPPINES: 1970-2000

(Figures in thousand)

Projections	Year						
	1970 <sup>1/</sup>	1975	1980	1985	1990	1995	2000
High	36,684	43,397	50,898	59,841	70,238	82,389	96,770
Medium	36,684	43,108	49,961	57,499	65,634	74,474	84,143
Low	36,684	42,819	49,024	55,156	61,040	66,638	71,854

<sup>1/</sup> Enumerated population in the census.

Note: The total population figures do not necessarily equal the sum of the population of their geographic components due to rounding.

Source: Bureau of the Census and Statistics, Population Division.

Table III.21--PROJECTED TOTAL POPULATION OF LUZON, VISAYAS AND MINDANAO: 1970 - 2000

(Figures in thousands)

Projections	Year						
	1970 <sup>1/</sup>	1975	1980	1985	1990	1995	2000
<b>High</b>							
Luzon	18,185	21,741	26,003	30,864	36,635	43,312	51,205
Visayas	10,546	11,747	13,086	14,464	15,987	17,651	19,485
Mindanao	7,964	9,699	11,809	14,423	17,613	21,433	26,076
<b>Medium</b>							
Luzon	18,175	21,536	25,523	29,558	34,239	39,044	44,523
Visayas	10,546	11,641	12,843	13,856	14,939	15,909	16,939
Mindanao	7,964	9,610	11,594	13,814	16,458	19,320	22,674
<b>Low</b>							
Luzon	18,175	21,336	25,043	28,239	31,843	34,795	38,024
Visayas	10,546	11,529	12,606	13,234	13,893	14,177	14,468
Mindanao	7,964	9,518	11,377	13,200	15,308	17,217	19,363

<sup>1/</sup> Enumerated population in the census.

Note: Southern Tagalog provinces are included in the Visayas region.

Source: Bureau of the Census and Statistics, Population Division.



Luzon, Visayas and Mindanao are expected to exhibit notable population increases during the next 30 years although in varying degrees. The estimates from medium projections show that Mindanao is expected to increase by approximately 185 percent. Luzon by 145 percent and Visayas by 61 percent, relative to their 1970 population figures by the year 2000. The high and low projection estimates expect Mindanao to experience the most remarkable increase followed by Luzon and Visayas.

During the next 30 years, the population of Bukidnon is expected to be 6 times its 1970 population, while the population of Agusan del Sur, Davao Oriental and Rizal are expected to be about 5 times their original population according to the medium projections. Catanduanes, on the other hand, is expected to experience a population decrease during the next 30 years. Between 1970-1980 the population of Catanduanes is expected to increase by about 3 percent but the following 20 years expect a slight decline on its population. By the year 2000, its population will be 6 percent smaller than that of 1970. Relatively small increases are to be experienced by the provinces of Mt. Province, Batanes, Ilocos Sur, Negros Occidental, Camarines Sur, Eastern Samar, Manila, Leyte, Bohol, Aklan, Northern Samar, Ilocos Norte, Camiguin, Ifugao and Lanao del Sur, according to the medium projections. In these provinces, the population increase will be less than 50 percent during the next 30 years. Of the 67 provinces of the Philippines, 13 are expected to increase at a faster rate while the rest will increase at a slower rate.

*Provinces with higher rate of population increase*

- |                       |                      |
|-----------------------|----------------------|
| 1. Bukidnon           | 8. Zambales          |
| 2. Davao Oriental     | 9. Nueva Vizcaya     |
| 3. Rizal              | 10. Davao del Sur    |
| 4. Agusan del Norte   | 11. Surigao del Sur  |
| 5. Davao del Norte    | 12. Agusan del Norte |
| 6. Occidental Mindoro | 13. Cotabato         |
| 7. South Cotabato     |                      |

*Provinces with lower rate of population increase*

- |                       |                         |
|-----------------------|-------------------------|
| 1. Catanduanes        | 28. Capiz               |
| 2. Mt. Province       | 29. Marinduque          |
| 3. Batanes            | 30. Misamis Occidental  |
| 4. Ilocos Sur         | 31. Romblon             |
| 5. Negros Occidental  | 32. Lanao del Norte     |
| 6. Camarines Sur      | 33. Sulu                |
| 7. Eastern Samar      | 34. Cagayan             |
| 8. Manila             | 35. Albay               |
| 9. Leyte              | 36. Tarlac              |
| 10. Bohol             | 37. Batangas            |
| 11. Aklan             | 38. Cavite              |
| 12. Northern Samar    | 39. Misamis Oriental    |
| 13. Ilocos Norte      | 40. Camarines Norte     |
| 14. Camiguin          | 41. Zamboanga del Sur   |
| 15. Lanao del Sur     | 42. Nueva Ecija         |
| 16. Ifugao            | 43. Oriental Mindoro    |
| 17. Negros Oriental   | 44. Benguet             |
| 18. Southern Leyte    | 45. Palawan             |
| 19. Western Samar     | 46. Masbate             |
| 20. Surigao del Norte | 47. Zamboanga del Norte |
| 21. Sorsogon          | 48. Isabela             |
| 22. Pangasinan        | 49. Pampanga            |
| 23. Iloilo            | 50. Laguna              |
| 24. Antique           | 51. Bataan              |
| 25. Cebu              | 52. Bulacan             |
| 26. Abra              | 53. Quezon              |
| 27. La Union          | 54. Kalinga-Apayao      |

The regions of Ilocos and Mt. Province, Manila, Eastern and Western Visayas will generally experience smaller population gains. On the other hand, provinces in Eastern Mindanao and a few Southern Luzon provinces are expected to exhibit larger gains in population.

Inasmuch as the ratio method which was used to arrive at these estimates does not take into account the components of population change separately, but simply assumes certain mathematical rate of change for the entire period, the projected figures may not be realistic and therefore undoubtedly contain some errors. However, the projections provided here will be useful for planning and other purposes particularly for the immediate future, say, for the next 10 to 15 years, since the errors contained for the period will be relatively less.

Table III.22 - PROJECTED TOTAL POPULATION OF EACH PROVINCE FOR THE PHILIPPINES, 1970 - 2000

(Low projections. Figures rounded to the nearest thousands)

Province	1970 <sup>1/</sup>	1975	1980	1985	1990	1995	2000
<b>PHILIPPINES *</b>	<b>36,684,486</b>	<b>43,187</b>	<b>50,898</b>	<b>59,751</b>	<b>70,238</b>	<b>82,189</b>	<b>96,770</b>
<b>Luzon</b>	<b>18,174,970</b>	<b>21,741</b>	<b>26,003</b>	<b>30,864</b>	<b>36,635</b>	<b>43,312</b>	<b>51,205</b>
Abra	145,508	164	185	206	229	254	281
Albay	673,981	773	885	1,004	1,138	1,283	1,446
Bataan	216,210	264	321	388	467	558	667
Batanes	11,398	12	13	13	34	14	15
Batangas	326,308	1,082	1,252	1,459	1,684	1,934	2,219
Benguet	263,550	316	379	449	532	627	738
Bulacan	836,431	1,027	1,257	1,524	1,842	2,113	2,464
Cagayan	581,237	656	761	862	976	1,079	1,236
Canarines Norte	262,207	310	366	428	501	581	676
Canarines Sur	948,436	1,024	1,104	1,179	1,258	1,336	1,417
Cavite	520,150	611	717	834	968	1,118	1,291
Catanduanes	162,302	166	170	172	174	175	176
Ifugao	97,487	102	112	122	133	144	155
Ilocos Norte	343,427	377	413	448	485	523	564
Ilocos Sur	305,139	413	441	468	496	522	549
Isabela	648,123	706	950	1,139	1,362	1,620	1,924
Kalinga-Apayao	136,249	168	207	252	306	369	444
La Union	373,682	423	478	535	598	666	740
Laguna	699,736	953	1,037	1,243	1,500	1,793	2,137
Mt. Province	23,112	27	102	195	199	117	115
Manila	1,350,788	1,444	1,564	1,679	1,800	1,920	2,048
Nueva Ecija	1,009,124	1,009	1,123	1,399	1,638	1,908	2,221
Nueva Vizcaya	221,965	281	355	441	546	671	821
Pangasinan	907,275	1,101	1,334	1,600	1,915	2,291	2,711
Quezon	1,366,143	1,544	1,717	1,892	2,082	2,280	2,484
Rizal	2,844,689	3,968	5,391	7,129	9,287	11,406	15,113
Samarang	457,047	475	527	579	636	695	752
Tarlac	523,708	643	736	837	949	1,071	1,208
Zambales	343,034	435	548	682	844	1,037	1,268
<b>Visayas</b>	<b>10,545,584</b>	<b>11,747</b>	<b>13,086</b>	<b>14,464</b>	<b>15,987</b>	<b>17,691</b>	<b>19,495</b>
Aklan	263,358	287	313	338	365	392	425
Antique	289,172	322	357	394	434	478	526
Bacolod	683,297	741	804	865	931	1,000	1,074
Cebu	394,041	445	502	561	628	701	782
Eastern Samar	1,634,182	1,827	2,041	2,262	2,507	2,774	3,068
Iloilo	271,000	292	315	337	360	385	411
Leyte	1,167,973	1,296	1,439	1,584	1,743	1,915	2,104
Negros Occidental	1,110,626	1,205	1,306	1,405	1,511	1,622	1,741
Negros Oriental	1,503,782	1,614	1,732	1,844	1,961	2,085	2,215
Northern Samar	715,240	730	872	955	1,046	1,144	1,251
Occidental Samar	306,114	334	365	395	423	453	483
Occidental Leyte	167,082	190	216	243	273	307	345
Occidental Samar	251,425	278	307	337	370	405	443
Occidental Samar	442,744	489	541	594	651	713	781
Occidental Samar	144,109	163	184	207	232	250	290
Occidental Samar	497,908	601	728	867	1,027	1,209	1,417
Occidental Mindoro	144,032	139	242	302	371	451	542
Occidental Mindoro	339,364	326	475	562	662	773	901
Occidental Mindoro	236,635	288	347	412	487	572	669
<b>Mindanao</b>	<b>7,963,932</b>	<b>9,699</b>	<b>11,809</b>	<b>14,423</b>	<b>17,613</b>	<b>21,433</b>	<b>26,076</b>
Agusan del Norte	278,053	346	430	534	663	818	1,008
Agusan del Sur	174,682	237	316	419	551	716	924
Bukidnon	414,762	600	842	1,159	1,570	2,090	2,752
Cagayan	53,913	59	64	71	77	84	91
Cotabato	1,136,007	1,405	1,733	2,142	2,647	3,244	3,977
Davao del Norte	425,343	570	731	915	1,132	1,388	1,681
Davao del Sur	785,398	981	1,222	1,523	1,885	2,345	2,897
Davao Oriental	247,935	336	450	598	786	1,021	1,315
Lanao del Norte	349,942	396	448	508	575	649	729
Lanao del Sur	455,508	498	544	595	651	708	769
Misamis Occidental	319,655	362	409	461	521	586	657
Misamis Oriental	475,756	551	643	751	875	1,016	1,179
South Cotabato	466,110	583	726	906	1,128	1,377	1,707
Quilo	425,617	484	549	624	708	801	904
Surigao del Norte	238,714	263	290	320	357	396	423
Surigao del Sur	258,680	322	400	497	616	761	937
Zamboanga del Norte	409,379	491	598	706	847	1,010	1,204
Zamboanga del Sur	1,034,018	1,214	1,425	1,674	1,964	2,294	2,678

<sup>1/</sup> Enumerated population in the census.

Figures do not necessarily equal the sum of their geographic components due to rounding.

Source: Bureau of the Census and Statistics, Population Division.

## POPULATION

Table III.22a - PROJECTED TOTAL POPULATION OF EACH PROVINCE FOR THE PHILIPPINES, 1970 - 2000

(Median projections. Figures rounded to the nearest thousands)

Province	Year						
	1970	1975	1980	1985	1990	1995	2000
<b>PHILIPPINES *</b>	<b>36,684,486</b>	<b>42,787</b>	<b>49,961</b>	<b>57,228</b>	<b>65,634</b>	<b>74,273</b>	<b>84,143</b>
<b>Luzon</b>	<b>18,174,970</b>	<b>21,536</b>	<b>25,523</b>	<b>29,558</b>	<b>34,239</b>	<b>39,044</b>	<b>44,523</b>
Abra	145,508	162	181	197	214	229	244
Albay	673,981	766	868	961	1,063	1,156	1,256
Bataan	216,210	262	316	371	436	503	580
Batanes	11,398	12	12	13	13	13	13
Batangas	926,308	1,072	1,239	1,397	1,574	1,744	1,930
Benguet	263,550	313	372	430	497	565	642
Bulacan	836,431	1,017	1,234	1,450	1,721	1,995	2,308
Cagayan	581,237	659	747	826	912	991	1,075
Canarines Norte	262,207	307	359	410	468	525	588
Canarines Sur	348,436	1,014	1,084	1,129	1,176	1,204	1,232
Cavite	520,180	606	704	798	905	1,008	1,122
Catanduanes	162,302	165	167	165	163	158	153
Ifugao	92,487	101	110	117	124	129	135
Ilocos Norte	342,427	373	405	429	454	472	490
Ilocos Sur	485,139	409	433	448	463	471	478
Iwabela	648,123	778	933	1,091	1,273	1,460	1,673
Kalinga-Apayao	136,249	167	203	241	286	333	386
La Union	373,682	419	469	512	559	600	643
Laguna	699,736	845	1,018	1,196	1,402	1,615	1,858
Mt. Province	93,112	96	100	101	102	101	100
Manila	1,330,788	1,430	1,535	1,608	1,682	1,731	1,779
Nueva Ecija	851,294	999	1,171	1,340	1,531	1,720	1,931
Nueva Vizcaya	221,965	279	348	423	511	605	714
Pampanga	907,275	1,091	1,309	1,532	1,790	2,056	2,357
Pangasinan	1,386,143	1,529	1,685	1,812	1,946	2,055	2,169
Quezon	983,324	1,196	1,451	1,715	2,024	2,345	2,713
Rizal	2,844,689	3,931	5,292	6,828	8,679	10,732	13,141
Sorsogon	427,047	470	517	555	595	627	660
Tarlac	553,708	637	723	801	887	966	1,050
Zambales	343,034	431	538	653	789	935	1,103
<b>Visayas</b>	<b>10,545,584</b>	<b>11,641</b>	<b>12,843</b>	<b>13,856</b>	<b>14,939</b>	<b>15,909</b>	<b>16,939</b>
Aklan	263,358	284	307	324	341	355	369
Antique	289,172	319	351	377	406	431	456
Bohol	583,297	735	789	829	870	901	934
Capiz	394,041	441	492	538	586	632	680
Cebu	1,634,182	1,810	2,003	2,167	2,342	2,500	2,668
Eastern Samar	271,000	290	309	323	337	347	357
Iloilo	1,167,973	1,284	1,412	1,517	1,628	1,726	1,830
Leyte	1,110,666	1,193	1,282	1,345	1,412	1,462	1,514
Negros Occidental	1,503,782	1,539	1,700	1,766	1,834	1,890	1,936
Negros Oriental	715,240	733	856	915	978	1,031	1,087
Western Samar	306,114	331	358	379	400	417	435
Reynolds	167,082	188	212	233	256	277	293
Southern Leyte	251,425	275	302	323	345	365	385
Western Samar	442,244	485	531	569	608	643	679
Marinduque	144,103	162	181	198	217	234	252
Masbate	497,308	596	714	831	960	1,090	1,222
Occidental Mindoro	144,032	188	238	290	347	406	471
Oriental Mindoro	328,364	393	466	538	617	697	783
Palawan	236,635	285	340	395	455	515	581
<b>Mindanno</b>	<b>7,263,932</b>	<b>7,610</b>	<b>11,594</b>	<b>13,814</b>	<b>16,458</b>	<b>19,320</b>	<b>22,674</b>
Agusan del Norte	278,053	343	422	512	619	737	877
Agusan del Sur	174,682	234	310	402	515	645	803
Bukidnon	414,762	595	827	1,110	1,467	1,884	2,393
Camiguin	53,913	58	63	68	72	76	79
Cotabato	1,136,007	1,392	1,702	2,051	2,469	2,924	3,458
Davao del Norte	442,543	565	718	836	1,114	1,359	1,653
Davao del Sur	785,398	972	1,199	1,459	1,771	2,114	2,519
Davao Oriental	247,395	333	442	572	734	921	1,147
Lanao del Norte	349,942	393	440	486	537	584	634
Lanao del Sur	455,508	494	534	570	608	638	669
Misamis Occidental	319,855	358	401	442	487	528	572
Misamis Oriental	472,756	547	631	719	818	916	1,024
South Cotabato	466,110	577	713	868	1,054	1,259	1,502
Sulu	425,617	479	539	598	662	722	786
Surigao del Norte	238,714	261	285	306	329	348	368
Surigao del Sur	258,680	319	392	476	576	686	815
Zamboanga del Norte	409,379	487	578	676	791	911	1,047
Zamboanga del Sur	1,034,018	1,203	1,398	1,603	1,835	2,068	2,328

1/ Enumerated population in the census.

\* Figures do not necessarily equal the sum of their geographic components due to rounding.

Source: Bureau of the Census and Statistics, Population Division.

## POPULATION PROJECTIONS

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Table III.22b - PROJECTED TOTAL POPULATION OF EACH PROVINCE FOR THE PHILIPPINES, 1970 - 2000  
(High projections. Figures rounded to the nearest thousands)

Province	Year						
	1970 <sup>1/</sup>	1975	1980	1985	1990	1995	2000
<b>PHILIPPINES *</b>	<b>36,684,486</b>	<b>42,383</b>	<b>49,024</b>	<b>54,673</b>	<b>61,040</b>	<b>66,189</b>	<b>71,854</b>
<b>Luzon</b>	<b>18,174,370</b>	<b>21,336</b>	<b>25,043</b>	<b>28,239</b>	<b>31,843</b>	<b>34,795</b>	<b>38,024</b>
Abra	145,508	161	178	188	199	204	209
Albay	673,981	758	852	918	989	1,030	1,073
Bataan	216,210	259	310	355	405	448	495
Batanes	11,398	12	12	12	12	12	11
Batangas	926,308	1,062	1,216	1,335	1,464	1,554	1,648
Benguet	263,550	310	365	411	463	504	548
Bulacan	836,431	1,008	1,211	1,394	1,601	1,778	1,971
Cagayan	581,237	653	733	789	848	883	918
Camarines Norte	262,207	304	353	392	435	468	502
Camarines Sur	948,436	1,005	1,063	1,079	1,094	1,073	1,052
Cavite	520,180	600	691	763	841	898	958
Catanduanes	162,302	163	164	157	151	141	131
Ifugao	92,487	100	108	112	115	115	115
Ilocos Norte	343,427	370	397	410	422	420	419
Ilocos Sur	385,139	405	425	428	431	410	408
Isabela	648,123	771	915	1,042	1,184	1,301	1,429
Kalinga-Apayao	136,249	165	199	231	266	297	330
La Union	373,682	415	460	489	520	535	549
Laguna	699,736	837	999	1,142	1,304	1,439	1,587
Mt. Province	93,112	96	98	96	95	90	85
Manila	1,330,788	1,417	1,506	1,536	1,565	1,543	1,570
Nueva Ecija	851,294	990	1,149	1,280	1,424	1,533	1,649
Nueva Vizcaya	321,965	276	342	404	475	539	610
Pangasinan	907,275	1,081	1,284	1,464	1,665	1,832	2,013
Pampunian	1,386,143	1,515	1,653	1,731	1,810	1,832	1,852
Quezon	983,324	1,185	1,424	1,639	1,882	2,090	2,317
Risal	2,844,689	3,894	5,192	6,523	8,071	9,564	11,222
Sorsogon	427,047	466	507	530	553	559	564
Tarlac	559,708	631	709	765	825	861	897
Zambales	347,034	427	528	624	734	833	942
<b>Visayas</b>	<b>10,545,584</b>	<b>11,529</b>	<b>12,606</b>	<b>13,234</b>	<b>13,893</b>	<b>14,177</b>	<b>14,468</b>
Aklan	263,358	282	301	309	317	316	315
Antique	289,172	316	344	361	378	384	391
Bohol	683,257	728	775	792	809	803	797
Capiz	394,041	436	483	513	545	563	581
Cebu	1,634,182	1,733	1,966	2,070	2,178	2,228	2,270
Eastern Samar	271,000	287	304	308	313	309	305
Iloilo	1,167,973	1,272	1,386	1,449	1,514	1,530	1,562
Leyte	1,110,626	1,102	1,258	1,285	1,313	1,303	1,253
Negros Occidental	1,503,702	1,584	1,668	1,687	1,705	1,675	1,645
Negros Oriental	715,240	775	840	874	909	919	929
Northern Samar	306,114	328	352	362	372	372	371
Romblon	167,082	186	208	222	238	247	256
Southern Leyte	251,425	273	296	308	321	325	329
Western Samar	442,244	480	521	543	566	573	580
Marinduque	144,109	160	178	189	202	209	216
Masbate	492,908	590	701	794	893	971	1,052
Occidental Mindoro	144,032	186	234	277	323	362	402
Oriental Mindoro	328,364	389	457	514	574	621	669
Palawan	236,635	282	334	377	423	459	497
<b>Mindanao</b>	<b>7,963,932</b>	<b>9,518</b>	<b>11,377</b>	<b>13,200</b>	<b>15,308</b>	<b>17,217</b>	<b>19,363</b>
Agusan del Norte	278,053	340	414	489	576	657	747
Agusan del Sur	174,682	232	305	384	479	575	686
Bukidnon	414,762	589	811	1,061	1,364	1,679	2,044
Comiguin	53,913	58	62	65	67	68	68
Cotabato	1,136,007	1,378	1,670	1,960	2,296	2,606	2,953
Davao del Norte	442,543	560	704	856	1,036	1,211	1,412
Davao del Sur	785,398	962	1,177	1,394	1,647	1,884	2,151
Davao Oriental	247,995	330	434	547	683	820	979
Lanao del Norte	349,942	389	432	465	500	520	541
Lanao del Sur	495,508	489	524	545	565	569	571
Misamis Occidental	319,855	355	393	422	453	471	489
Misamis Oriental	472,756	541	619	687	761	816	875
South Cotabato	466,110	572	700	829	980	1,122	1,282
Sulu	425,617	475	529	571	616	643	671
Surigao del Norte	238,714	258	279	293	306	310	314
Surigao del Sur	258,680	316	385	455	536	611	696
Zamboanga del Norte	409,379	482	567	646	736	812	894
Zamboanga del Sur	1,034,018	1,192	1,372	1,531	1,707	1,843	1,988

<sup>1/</sup> Enumerated population in the census.

\* Figures do not necessarily equal the sum of their geographic components due to rounding.

Source: Bureau of the Census and Statistics, Population Division.

### WORLD POPULATION FIGURES

Just as the Philippines has been experiencing relatively large gains in terms of population, so has the other countries of the world, been, as presented in the table below. The figures are estimates taken from the 1970 World Population data sheet, furnished by the Information Service of the Population Reference Bureau, 1969.

**Table III.23 — World Population and Rate of Growth  
by Region and Country: 1970**

Region or Country	Population Estimates Mid-1970 (Millions)	Current Rate of Growth (%)	Region or Country	Population Estimates Mid-1970 (Millions)	Current Rate of Growth (%)
<b>WORLD</b>	<b>3,632 a/</b>	<b>2.0</b>			
<b>A F R I C A</b>	<b>344</b>	<b>2.6</b>			
Northern Africa	87	3.1	Lesotho	1.0	1.8
Algeria	14.0	3.2	South Africa	20.1	2.4
Libya	1.9	3.1	Southwest Africa (Namibia)	0.6	2.0
Morocco	15.7	3.3	Swaziland	0.4	3.0
Sudan	15.8	3.2	<b>ASIA</b>	<b>2,056 b/</b>	<b>2.3</b>
Tunisia	5.1	3.0	Southwest Asia	77	2.9
United Arab Republic	33.9	2.8	Cyprus	0.6	0.9
Western Africa	101	2.5	Iraq	9.7	3.4
Dahomey	2.7	2.6	Israel	2.9	2.4
Gambia	0.4	1.9	Jordan	2.3	3.3
Ghana	9.0	2.9	Kuwait	0.7	8.3
Guinea	3.9	2.3	Lebanon	2.8	3.0
Ivory Coast	4.3	2.4	Saudi Arabia	7.7	2.8
Liberia	1.2	1.9	Southern Yemen	1.3	2.8
Mali	5.1	2.4	Syria	6.2	3.3
Mauri Tania	1.2	2.2	Turkey	35.6	2.7
Niger	3.8	2.9	Yemen	5.7	2.8
Nigeria	55.1	2.6	Middle South Asia	762	2.7
Senegal	3.9	2.4	Afghanistan	17.0	2.5
Sierra Leone	2.6	2.3	Bhutan	0.8	2.2
Togo	1.9	2.6	Ceylon	12.6	2.4
Upper Volta	5.4	2.1	India	554.6	2.6
Eastern Africa	98	2.6	Iran	28.4	3.0
Burundi	3.6	2.3	Nepal	11.2	2.2
Ethiopia	25.0	2.1	Pakistan	136.9	3.3
Kenya	10.9	3.1	Southeast Asia	287	2.8
Madagascar	6.9	2.7	Burma	27.7	2.3
Malawi	4.4	2.5	Cambodia	7.1	3.0
Mauritius	0.9	2.5	Indonesia	121.2	2.9
Mozambique <sup>2/</sup>	7.7	2.1	Laos	3.0	2.5
Reunion <sup>2/</sup>	0.5	3.1	Malaysia (East & West)	10.8	2.8
Rwanda	3.6	2.9	Philippines <sup>4/</sup>	38.1	3.4
Somalia	2.8	2.4	Singapore	2.1	2.4
Southern Rhodesia <sup>2/</sup>	5.0	3.4	Thailand	36.2	3.3
Tanzania	13.2	2.6	North Vietnam	21.2	2.1
Uganda	8.6	2.6	South Vietnam	18.0	2.1
Zambia	4.3	3.0	<b>East Asia</b>	<b>930</b>	<b>1.8</b>
Middle Africa	36	2.2	China (Mainland)	759.6	1.8
Angola <sup>2/</sup>	5.7	2.1	China (Taiwan)	14.0	2.3

Region or Country	Popula- tion Estimates Mid-1970 (Millions)	Current Rate of Growth (%)	Region or Country	Popula- tion Estimates Mid-1970 (Millions)	Current Rate of Growth (%)
Cameroon (West)	5.8	2.2	Hongkong <sup>2/</sup>	4.2	2.5
Central Africa Republic	1.5	2.2	Japan	103.5	1.1
Chad	3.7	2.4	Korea (North)	13.9	2.8
Congo (Brazzaville)	0.9	2.2	Korea (South)	32.1	2.5
Congo (Democratic Rep.)	17.4	2.2	Mongolia	1.3	3.1
Equatorial Guinea	0.3	1.3	Ryukyu Islands <sup>2/</sup>	1.0	1.7
Gabon	0.5	0.9	North America	228 b/	1.1
Southern Africa	23	2.4	Canada	21.4	1.7
Botswana	0.6	2.2	United States <sup>2/</sup>	205.2	1.0
Latin America	283 b/	2.9	Denmark	4.9	0.8
Middle America	67	3.4	Finland	4.7	0.4
Costa Rica	1.8	3.8	Iceland	0.2	1.8
El Salvador	3.4	3.4	Ireland	3.0	0.7
Guatemala	5.1	2.9	Norway	3.9	0.9
Honduras	2.7	3.4	Sweden	8.0	0.8
Mexico	50.7	3.4	United Kingdom	56.0	0.5
Nicaragua	2.0	3.0	Western Europe	149	0.8
Panama	1.5	3.3	Austria	7.4	0.4
Caribbean	26	2.2	Belgium	9.7	0.4
Barbados	0.3	0.8	France	5.1	0.8
Cuba	8.4	1.9	West Germany	58.6	0.6
Dominican Republic	4.3	3.4	Luxembourg	0.4	1.2
Gua De Loupe <sup>2/</sup>	0.4	2.4	Netherlands	13.0	1.1
Haiti	5.2	2.5	Switzerland	6.3	1.1
Jamaica	2.0	2.1	Eastern Europe	104	0.8
Martinique <sup>2/</sup>	0.4	2.0	Bulgaria	8.5	0.8
Puerto Rico <sup>2/</sup>	2.8	1.4	Czechoslovakia	14.7	0.7
Trinidad and Tobago	1.1	1.8	East Germany	16.2	0.3
Tropical South America	151	3.0	Hungary	10.3	0.4
Bolivia	4.6	2.4	Poland	33.0	0.9
Brazil	93.0	2.8	Rumania	20.3	1.3
Colombia	21.4	3.4	Southern Europe	128	0.9
Ecuador	6.1	3.4	Albania	2.2	2.7
Guyana	0.7	2.9	Greece	8.9	0.8
Peru	13.6	3.1	Italy	53.7	0.8
Venezuela	10.8	3.4	Malta	0.3	0.8
Temperate South America	39	1.8	Portugal	9.6	0.7
Argentina	24.3	1.5	Spain	33.2	1.0
Chile	9.8	2.3	Yugoslavia	20.6	1.1
Paraguay	2.4	3.4	USSR	242.6	1.0
Uruguay	2.9	1.2	Oceania	19 b/	2.0
Europe	462	0.8	Australia	12.5	1.9
Northern Europe	81	0.6	New Zealand	2.9	1.7

1/ Estimates from United Nations World Population Prospects, 1965-85, as assessed in 1968, UN population Division working paper No. 30, December, 1969.

2/ Non-Sovereign Country.

3/ US figures are based on data from the United States Bureau of Census and National Center for Health Statistics. Total Mid-Year population has not been adjusted to accommodate the estimated 5.7 million "Undercount" of United States population in the 1960 census.

4/ Figures for the Philippines may be substituted by the results obtained from the 1970 Census, 36.7 million, and a rate of Growth of 3.01%. The over enumeration arises from the fact that the estimates were obtained using data on births and deaths which are rather very likely to be underenumerated.

a/ Total reflects UN adjustments of discrepancies in international migration data.

b/ Regional population totals take into account small areas not listed in table.

NOTE: In general for many of the developing countries, the total population are subject to deficiencies of varying degrees. In some cases data are estimates of UN secretariat.

## CHAPTER IV. CITIZENSHIP AND IMMIGRATION

As the history of the Philippines and other democracies has indicated, privileges and freedoms of self-government are accompanied by the duties and responsibilities of citizenship. The citizen is obliged to finance his government through payment of taxes. It is his duty to obey the laws and regulations in whose making he himself has participated. This is a passive phase of the responsibility of citizenship. There are other requirements equally pressing and of a more active nature.

Foremost among active responsibilities is the wise use of the power of the ballot. Intelligent voters in casting their ballots keep in mind the democratic principle asserting "the greatest good for the greatest number."

### Requirements for Citizenship

Since the final authority and the supreme power in a democracy rests with the ballot and the person who casts it, the greatest privilege and responsibility of citizenship is the vote. And because no one can vote who is not a citizen, it is worthwhile, first, to cite the qualifications for citizenship. All persons born of Filipino fathers are considered as citizens of the Philippines.

The present law governing naturalization is Commonwealth Act No. 473 (1939), otherwise known as the Revised Naturalization Law. This law requires that the petitioner must not be less than twenty-one years of age on the day of the hearing of the petition and must have resided in the Philippines for a continuous period of not less than ten years. He must be of good moral character and must believe in the principles underlying the Constitution. During the entire period of his residence in the Philippines, he must have conducted himself in a proper and unrepachable manner in his relation with the constituted government and with the community in which he is living. He must own real estate in the Philippines worth at least five thousand pesos or he must have some known lucrative trade, profession, or lawful occupation. The petitioner must have enrolled his minor children of school age in any of the public or private schools recognized by the Government where Philippine history, government, and civics are taught.

The ten years of continuous residence required by law is reduced to five years if the applicant can show that he has held office under the Government of the Philippines or that he has established a new industry or introduced a new useful invention in the Philippines. The same privilege is given to those who are married to Filipino women or born in the Philippines or has been engaged as a teacher in the Philippines in schools recognized by the government and which are not limited to any race or nationality for a period of not less than two years.

### Procedure of Naturalization

There are several steps in the process of naturalization, namely: (1) the declaration of intention to become a citizen of the Philippines; (2) the filing of the petition for naturalization; (3) the hearing of the petition before the court; and (4) the hearing for the issuance of certificate of naturalization as well as for the taking of oath by the applicant.



The law requires that one year prior to the filing of a petition for citizenship, the applicant must file with the Office of the Solicitor General a declaration under oath that it is his bona fide intention to become a citizen of the Philippines. This declaration of intention is not required if the applicant was born in the Philippines and has received his primary and secondary education in public schools or those recognized by the Government and not limited to any race or nationality, or if the applicant has resided continuously in the Philippines for thirty years or more before filing his petition for naturalization. However, the petitioner must show in either case that he has given primary and secondary education to all his children in public or private schools recognized by the Government and not limited to any race or nationality. The widow and children of an applicant who dies after he has filed a declaration of intention are also exempted from filing such declaration if they choose to be naturalized themselves.<sup>1/</sup>

The petition for naturalization is filed with the Court of First Instance of the province in which the petitioner has resided at least one year immediately preceding the filing of said petition. The petition must be signed by the applicant in his own handwriting and supported by the affidavit of at least two credible persons who are citizens of the Philippines and who have known the petitioner for at least five years or ten years, as the case may be. The petition is published in the Official Gazette and in a newspaper of general circulation in the province where the petitioner resides, once a week for three consecutive weeks.

The petition is heard by the court at least six months from the date of the last publication as mentioned above. The government is represented by a solicitor from the Office of the Solicitor General or by a representative of the Provincial Fiscal. On the day of the hearing, the petitioner, assisted by his own counsel, takes the witness stand and proceeds to establish his qualifications. The two or more witnesses are also presented for the purpose of further establishing that the applicant is qualified to be naturalized. Both representatives of the government and the judge may question the petitioner as well as the witnesses. If, after hearing, the court believes that the petitioner possesses all the qualifications and none of the disqualifications under the law, and has complied with all other requisites established by law, it shall grant the petition.<sup>2/</sup>

Under a new law the decision on the application for citizenship becomes executory only after two years from its promulgation and after the court, on proper hearing, is satisfied that during the intervening time the applicant (1) has not left the Philippines, (2) has dedicated himself continuously to a lawful calling or profession, (3) has not committed any act prejudicial to the interest of the nation or contrary to any Government announced policies. The court may then allow the applicant to take the necessary oath, after which the certificate of naturalization is issued in his favor.

As of December, 1971 the Philippines, through the office of the Solicitor General, Department of Justice had issued a total of 81 Certificate of Naturalization to deserving non-Filipinos, after complying with all the requirements called for by law. On the other hand 132 persons as of December, 1971 are awaiting the outcome of their pending petition on naturalization with the same office.

A person born in a foreign country may become a citizen through naturalization. There is no compulsion for an alien to become naturalized nor is he penalized for not doing so. There are over 110,226 non-citizens now resident in the Philippines who enjoy the same freedom of thought and action as citizens, who may send their children to the public schools, and receive the benefit of various community services. However, there are drawbacks to alien status. Some jobs are open only to citizens, and an alien is barred from holding either elective or appointive public office.

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1/ C. A. 473 Sec. 6, as amended by C. A. 535.

2/ R.A. 530

## Loss of Philippine Citizenship

Under the Constitution, citizenship may be lost or reacquired in the manner provided by law. The right of expatriation is, therefore, recognized by the Constitution. Expatriation is the act of forsaking one's own country with a renunciation of allegiance. Expatriation may be voluntary as in the case of one who freely renounces his former citizenship to embrace another by naturalization, or involuntary as in the case of one who has been declared by competent authority a deserter of the armed forces in times of war. In the Philippines, citizenship may be lost (1) by naturalization in a foreign country; (2) by expressed renunciation of citizenship; (3) by subscribing to an oath of allegiance to support the constitution or laws of a foreign country upon attaining the age of twenty-one years or more; (4) by rendering service to, or accepting commission in the armed forces of a foreign country; (5) by cancellation of the certificate of naturalization; (6) by having been declared by competent authority, a deserter of the armed forces of the Philippines during war, unless subsequently given a plenary pardon or granted amnesty; and (7) by marriage on the part of a Filipino woman to a foreigner if by virtue of the laws enforced in her husband's country, she acquires his nationality.

The mere fact of marriage of a Filipino woman to a foreigner does not necessarily make the woman lose her citizenship. It depends on whether or not the laws of the country of her husband allows her to follow his nationality.

## Immigration

The Bureau of Immigration was created under Commonwealth Act No. 613, otherwise known as the Philippine Immigration Act of 1940. The Bureau is under the administrative supervision and control of a Commissioner who is charged with the enforcement of immigration laws, rules and regulations throughout the Philippines. There are two Associate Commissioners, who together with the Commissioner form the Board of Commissioners. The Commissioner and Associate Commissioners are appointed by the President with the consent of the Commission on Appointments of the Congress of the Philippines. They hold office at the pleasure of the President.

Created during an era when travel was not yet at its peak, but with the foresight of the future, the Immigration Bureau has successfully performed its vital role in nation building and has rendered service in accordance with the purpose of its creation in spite of limitations.

The principal functions and activities of the Bureau are:

1. To control and regulate the entry of aliens into the Philippines. This is accomplished through the primary inspection conducted by Immigration officers at the different ports of entry. Immigration officers are empowered to exclude aliens who are not properly documented for entry into the country. In cases of doubt regarding the admissibility of any alien, the immigration officers refer the case to the Board of Special Inquiry for proper proceedings. The BSI then conducts an investigation as to the admissibility of the alien applying for admission. It may therefore admit or exclude the alien seeking entry into the country. All decisions of the Board of Special Inquiry may be appealed to the Board of Commissioners composed of the Commissioner and two Associate Commissioners, or in the absence of an appeal, the Board of Commissioners may review "motu proprio" the decisions of the Board of Special Inquiry within the period of one year from the date of the decision of the Board of Special Inquiry. Said decisions are final unless reversed by the Board of Commissioners.

2. Aliens who were able to enter the country, but who were not lawfully admissible at the time of their entry, may be subject to deportation proceedings with a view to returning them to the country of origin, or of which they are nationals. Aliens who have been lawfully admitted and who commit acts which make them subject to deportation under the immigration law are properly charged in a deportation proceeding. If the charges are established, a warrant of deportation is issued against the alien concerned and steps are taken to effect his deportation.

3. Under the Alien Registration Act of 1950, as amended, the Bureau is also in charge of registering and fingerprinting aliens in the Philippines. The purpose of registration is to have a complete data of the personal circumstance of the aliens, their activities and their whereabouts. They are also required to submit pictures and be fingerprinted for identification purposes.

Under the law, aliens are required to carry with them their Alien Certification of Registration issued by the Bureau, and to report their change of address within twenty-four hours before they actually change their address and to make their annual reports within the first 60 days of every calendar year. Annual report fee is ₱10.00 per person regardless of age. The Bureau is in charge also of inspecting vessels coming from foreign countries and those departing from the Philippines for foreign ports.

Presently there are forty one (41) immigration stations distributed throughout the country.

### IMMIGRATION STATIONS

1. Aparri	—	Aparri, Cagayan	23. Bislig	—	Bislig, Surigao del Sur
2. San Fernando	—	San Fernando, La Union	24. Batangas	—	Batangas City
3. Dagupan	—	Dagupan City	25. Siain	—	Lucena, Quezon
4. Legazpi	—	Legazpi City	26. Jose Panganiban	—	Jose Panganiban, Camarines Norte
5. Calapan	—	Calapan, Oriental Mindoro	27. Boac	—	Boac, Marinduque
6. Cebu	—	Cebu City	28. San Jose	—	San Jose, Samar
7. Puerto Princesa	—	Puerto Princesa City	29. Virac	—	Virac, Catanduanes
8. Iloilo	—	Iloilo City	30. Batalay	—	Batalay, Catanduanes
9. Bacolod	—	Bacolod City	31. San Andres	—	San Andres, Catanduanes
10. Maasin	—	Maasin, Leyte del Sur	32. Supang	—	Catanduanes
11. Davao	—	Davao City	33. Subic	—	No. 461 20th St., East Bajac-Bajac, Olongapo City
12. Cotabato	—	Cotabato City	34. Angeles	—	Valdez Bldg. C, Angeles City
13. Zamboanga	—	Zamboanga City	35. Baler	—	Baler, Quezon
14. Cagayan de Oro	—	Cagayan de Oro City	36. Sta. Cruz	—	Acayan Hotel, Iba, Zambales
15. Surigao	—	Surigao City	37. Sual	—	Sual, Pangasinan
16. Jolo	—	Jolo, Sulu	38. Dingalan	—	Dingalan, Quezon
17. Dumaguete	—	Dumaguete City	39. Bataan	—	Mariveles, Bataan
18. Tacloban	—	Tacloban, Leyte	40. Cathalogan	—	Catbalogan, Samar
19. Masao	—	Butuan City	41. Cavite	—	Cavite City
20. Iligan	—	Iligan City			
21. Ozamiz	—	Ozamiz City			
22. Dadiangas	—	General Santos City			

The importance of the immigration service especially in the light of our economic well-being and national security has been well appreciated. It is intimately connected with the national security with its function of regulation and surveillance of aliens, whether residing permanently or merely sojourning in the Philippines. The Bureau of Immigration is vested with the duties and functions which consist in regulating and controlling the alien community in the Philippines, both in the categories of permanent residents and of transients, the latter's stay in the Philippines being for a definite period of time. Inasmuch as a good portion of aliens are actually engaged in big business and in industries, it is to be inferred that they constitute a vital factor in the shaping of our socio-economic structure. Many of these aliens are tourists, temporary visitors, pre-arranged employees, traders and treaty negotiators, whose stay in the Philippines entails an estimated expenditure on their part of some \$22,351,000 annually, (Table IV.1).

Table IV.1 - ESTIMATED TOURIST RECEIPTS, PHILIPPINES: 1960 - 1970

Y e a r	Number of Visitors (Actual)	Average Length of Stay	Average indi- vidual Daily Expenditures 1/ (Dollar)	Total Tourist Receipts 2/ (Dollar)
1960 .....	50,657	6.4 days	30.00	9,726,144.00
1961 .....	57,250	6.4 days	29.16	10,684,617.57
1962 .....	62,364	6.7 days	24.50	10,237,050.60
1963 .....	69,813	7.0 days	30.00	14,660,730.00
1964 .....	75,243	6.9 days	30.00	15,575,301.00
1965 .....	84,015	7.0 days	30.00	17,643,150.00
1966 .....	101,695	7.3 days	28.30	21,122,051.50
1967 .....	108,805	7.2 days	29.50	23,110,182.00
1968 .....	112,713	7.2 days	30.50	24,751,775.00
1969 .....	123,268	7.2 days	30.50	27,069,652.80
1970 .....	144,071	7.3 days	30.50	32,077,408.15
Average .....				22,351,264.15

1/ According to survey of outgoing visitors.

2/ Excludes international fare payments. Estimated visitor expenditure is based on the number of visitors in a given year multiplied by their average length of stay and multiplied again by the average expenditure per person per day.

Source: E/D Cards, Airline and Shipping Lines.

The Research and Statistics Department of the Board of Travel and Tourist Industry has recorded 144,071 foreign visitors in 1970, an increase of 16.87 percent over that in 1969, (Table IV.2). The frontier Check being adopted, however, excludes foreign military servicemen on (R & R) rest and recreation. For many years now, Americans constitute about one-half of our tourist traffic to the Philippines. In 1970, there were 69,476 Americans. The other three equally important visitor groups were: Japanese, 15,838; Australians, 12,388; and British, 9,404. Because of the "open skies policy", which was approved recently by the Office of the President through the recommendation of the Civil Aeronautics Administration in 1970, there was a remarkable increase of visitors from Italy (136 percent), New Zealand (87 percent), India (71 percent), France (63 percent) and Canada (43 percent) over those of 1969.

Table IV.2—DISTRIBUTION OF VISITOR ARRIVALS BY NATIONALITY, PHILIPPINES: 1960-1970

Nationality	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
<b>Total</b>	<b>30,697</b>	<b>37,230</b>	<b>62,364</b>	<b>69,813</b>	<b>75,243</b>	<b>83,955</b>	<b>101,695</b>	<b>108,805</b>	<b>112,713</b>	<b>123,268</b>	<b>144,071</b>
American	23,627	25,968	31,339	36,693	39,146	45,551	52,225	54,290	53,603	60,394	69,476
Argentinian	84	80	67	101	65	119	210	146	190	153	334
Australian	4,139	4,964	4,577	5,485	5,523	5,217	7,389	8,128	10,860	10,929	12,388
Austrian	49	181	345	125	172	112	153	198	222	243	279
Belgian	66	69	104	118	109	137	197	261	180	266	456
Brazilian	32	34	24	88	87	45	76	85	166	70	316
British	5,399	6,216	7,685	8,108	7,701	7,721	9,887	9,794	8,800	8,462	9,404
Burmese	67	60	92	39	17	24	43	94	79	54	80
Canadian	1,020	1,191	1,105	1,169	1,575	1,709	1,631	1,963	2,048	2,707	3,840
Chinese	4,901	6,510	1,817	1,697	1,305	1,770	1,392	1,776	1,688	2,069	1,785
Danish	149	155	251	218	332	390	545	384	435	561	646
Dutch	700	700	1,700	1,098	890	1,238	1,220	1,205	1,299	1,607	1,263
Finnish	24	17	52	68	62	46	45	89	67	214	99
French	716	408	483	573	775	760	1,250	1,899	1,230	1,207	2,434
German	990	949	1,636	1,599	1,462	1,699	2,114	2,362	2,812	2,885	2,741
Greek	17	39	65	56	137	156	221	342	160	136	130
Indian	927	792	902	960	1,107	1,102	1,551	1,986	1,697	1,812	2,733
Indonesian	1,101	1,016	540	549	824	720	761	763	838	993	1,084
Irish	60	67	59	89	82	81	199	181	139	323	325
Israeli	112	99	79	86	114	128	183	190	283	242	377
Italian	412	371	696	507	492	504	848	964	900	1,264	2,717
Japanese	2,319	3,366	3,557	5,117	7,478	7,118	10,221	12,170	14,188	15,202	15,838
Korean	232	203	300	233	345	501	581	661	695	724	925
Mexican	107	82	100	152	263	117	209	134	519	376	312
New Zealander	771	869	705	804	828	886	1,232	1,058	1,041	1,156	2,092
Norwegian	89	130	131	144	178	250	270	402	427	476	410
Pakistani	63	96	109	522	382	225	240	281	284	428	797
Polish	136	5	5	5	3	7	12	21	14	20	14
Portuguese	74	65	62	100	143	135	119	153	128	236	658
Spanish	236	172	284	251	325	425	422	489	398	652	707
Swedish	139	138	576	340	366	554	664	595	641	742	827
Swiss	373	699	1,262	646	622	775	775	866	1,008	1,104	1,544
Thai	143	238	371	448	478	990	1,008	1,140	1,075	1,275	1,580
Vietnamese	196	242	208	118	132	281	369	538	382	479	665
Stateless	110	102	33	22	38	18	18	37	19	15	28
Others	1,117	997	1,043	1,485	1,685	2,464	3,496	3,560	4,318	3,792	4,767

Sources: R/D Cards Airline and Shipping Offices.

Airlines continue to play a major role in bringing travellers with much comfort and in a shorter span of time to any part of the world. In the Philippines, 92.84 percent of the tourist traffic come by air.

Now that the jumbo jets have been introduced in the Philippines and flight frequencies have been increased owing to "Open Skies Policy", participating international airlines are expected to play a much improved and even a bigger role in attracting visitors to come to the Philippines.

Classification of foreign visitors by country of residence reveals that North America was represented by 46.57 percent of the total tourist traffic. Far East Countries had 23.69 percent; Europe, 13.58 percent; Pacific Countries, 12.64 percent; and others, 3.52 percent. (See Table IV.3)

Table IV.3. DISTRIBUTION OF VISITOR ARRIVALS BY COUNTRY OF RESIDENCE AND MODE OF TRAVEL, PHILIPPINES, 1970

(Number)				
Country of Residence	Air	Sea	Total	Percent
<b>Grand Total</b>	<b>133,763</b>	<b>10,308</b>	<b>144,071</b>	<b>100.00</b>
<b>North America</b>				
<b>Total</b>	<b>64,086</b>	<b>2,205</b>	<b>67,091</b>	<b>46.57</b>
Canada	3,972	186	3,758	
Mexico	315	14	329	
United States	60,999	2,005	63,635	
<b>South America</b>				
<b>Total</b>	<b>1,294</b>	<b>35</b>	<b>1,329</b>	<b>0.92</b>
Argentina	707	-	707	
Brazil	323	-	323	
Other S.A. Countries	264	35	299	
<b>Europe</b>				
<b>Total</b>	<b>18,105</b>	<b>1,467</b>	<b>19,572</b>	<b>13.58</b>
Austria	196	7	203	
Belgium	295	5	300	
Denmark	465	10	475	
Finland	59	4	63	
France	2,439	26	2,465	
Germany	2,317	62	2,379	
Greece	105	3	108	
Ireland	215	4	219	
Italy	2,837	5	2,842	
Netherlands	847	49	893	
Norway	267	49	316	
Poland	14	-	14	
Portugal	678	12	690	
Spain	590	14	604	
Sweden	657	10	667	
Switzerland	1,776	28	1,404	
United Kingdom	4,481	1,166	5,647	
Other Europe Countries	267	16	283	
<b>Pacific Countries</b>				
<b>Total</b>	<b>12,963</b>	<b>5,245</b>	<b>18,208</b>	<b>12.64</b>
Australia	8,023	4,098	12,221	
Oma	1,348	267	1,615	
Hawaii	2,121	531	2,672	
New Zealand	1,167	289	1,456	
Other Pacific Countries	284	60	344	
<b>Middle East</b>				
<b>Total</b>	<b>1,468</b>	<b>140</b>	<b>1,608</b>	<b>1.12</b>
Israel	777	14	791	
Africa	840	12	852	
Lebanon	109	38	137	
Other M.E. Countries	142	86	228	
<b>Far East</b>				
<b>Total</b>	<b>33,015</b>	<b>1,118</b>	<b>34,133</b>	<b>23.69</b>
Burma	22	1	23	
Ceylon	-	-	-	
Cambodia	243	-	243	
Republic of China	1,510	212	1,722	
Hong Kong	3,457	238	3,695	
India	2,542	64	2,606	
Indonesia	1,420	5	1,425	
Japan	16,160	402	16,562	
Korea	1,066	15	1,081	
Malaysia	825	48	873	
Okinawa	268	33	301	
Pakistan	797	4	761	
Singapore	1,377	40	1,417	
Vietnam	1,096	8	1,104	
Thailand	2,132	4	2,136	
Other F.E. Countries	140	44	184	
<b>Not Reported</b>	<b>2,032</b>	<b>98</b>	<b>2,130</b>	<b>1.48</b>

Source: R/O Cards, Airline and Shipping Offices.

The (weighted mean) average stay of foreign visitors from January to September 1970 is computed at 7.3 days. The main bulk of visitors, however, stayed from one (1) to seven (7) days. (See Table IV.4)

Table IV.4—DISTRIBUTION OF VISITOR ARRIVALS BY LENGTH OF STAY,<sup>1/</sup> PHILIPPINES: 1966-1970

Length of stay	1966		1967		1968		1969		1970 <sup>2/</sup>	
	Number	Tourist Days	Number	Tourist Days	Number	Tourist Days	Number	Tourist Days	Number	Tourist Days
Grand Total	101,695		108,805		112,713		123,268		110,868	
Weighted Mean:	7.32		7.22		7.21		7.21		7.23	
Sub-Total	65,076	122,932	67,281	133,972	69,188	137,171	74,022	157,881	69,997	141,244
Weighted Mean: (1-4 days)	1.89		1.98		1.98		2.13		2.02	
1 day	30,051	30,051	27,907	27,907	29,235	29,235	25,086	25,086	27,861	27,861
2 days	18,021	36,042	19,252	38,504	19,529	39,058	22,806	45,612	20,322	40,644
3 days	11,177	33,531	13,327	39,981	12,818	38,454	17,337	52,011	14,397	43,071
4 days	5,827	23,308	6,795	27,180	7,606	30,424	8,793	35,172	7,417	29,668
Sub-Total	19,932	195,640.5	23,843	234,326	24,665	237,710	29,347	285,304	23,079	218,568.5
Weighted Mean: (5-19 days)	9.81		9.83		9.64		9.72		9.47	
5-9 days	12,447	87,108	14,853	103,971	15,991	11,937	18,697	130,879	15,477	108,339
10-19 days	7,485	108,522.5	8,990	130,355	8,674	125,773	10,650	154,425	8,337	120,886.5
Sub-Total	10,077	377,766.5	9,912	361,802	10,316	375,862	11,038	383,831	10,758	386,381.0
Weighted Mean: (18-99 days)	47.49		36.50		36.43		34.77		35.92	
20-29 days	3,661	89,694.5	3,819	93,565	3,976	97,412	4,926	120,687	3,537	86,656.5
30-39 days	2,186	75,417	2,473	85,318	2,274	78,453	2,635	90,907.5	2,417	83,386.5
40-49 days	1,678	74,671	1,437	63,946	2,160	96,120	1,726	76,807	1,608	71,556.0
50-59 days	2,552	137,984	2,183	118,973	1,906	103,877	1,751	95,429.5	2,461	134,124.5
1-99 days	95,085	696,339	101,036	729,700	104,169	750,743	114,407	827,016	103,794	746,193
Over 99 days	6,610		7,769		8,544		8,861		7,074	

<sup>1/</sup> Computation of actual days of visitors stay are based on the Departure Cards. The average length of stay is computed for a stay of 1 day to 99 days.

<sup>2/</sup> January to September data only.

Source: P/D Cards Airline and Shipping Offices.

Three distinct groups of visitors, such as, the professionals (18.29 percent) businessmen and executives (16.40 percent), and other gainfully employed (14.60 percent) constituted 49.3 percent of the tourist traffic. The balance of 50.7 percent were distributed as follows: housewives, 13.98 percent; military/government representatives, 6.72 percent; retired and unemployed, 6.43 percent; students, 5.64 percent; office clerks and sales representatives, 6.09 percent; teachers and professors, 3.92 percent; and those engaged in agriculture and related activities, 0.65 percent. The majority of the foreign visitors who comprised 62.68 percent of the total tourist traffic were on pleasure trips. The remaining 37.32 percent was distributed as follows: on business, 15.68 percent; on official mission, 5.64 percent; and others, 13.76 percent. (See Table IV.5, and Table IV.6).



Table IV.5—DISTRIBUTION OF VISITOR ARRIVALS BY NATIONALITY AND OCCUPATIONAL GROUP, PHILIPPINES: 1970

(Number)

Nationality	Business Managerial	House- wife	Other Profession- al	Student	Teacher Professor	Clerical Sales	Retired	Other Self-employed	Military Govern- ment	Agri- culture Fishery	Not reported	Total
Total	23,632	20,139	26,390	8,131	5,651	8,776	9,236	21,033	9,685	938	10,480	144,071
Percent Dis- tribution	16.40	13.98	18.29	5.64	3.92	6.09	6.43	14.60	6.72	0.65	7.28	100.00
American	7,299	12,340	11,790	4,210	3,716	4,079	7,110	8,342	5,465	262	4,943	69,476
Argentinian	16	40	64	5	4	14	2	95	9	2	83	334
Australian	2,349	2,170	32,307	624	339	907	479	2,034	409	158	612	12,388
Austrian	39	22	72	32	10	13	12	26	18	1	34	279
Belgian	48	15	119	15	19	20	4	88	34	4	90	436
Brazilian	16	38	68	8	17	20	10	72	34	3	30	316
British	2,097	1,126	1,972	997	192	852	370	1,307	490	36	385	9,404
Burmese	-	-	4	1	-	3	-	39	25	3	5	80
Canadian	390	645	849	191	298	337	272	518	169	22	189	8,840
Chinese	227	370	288	86	29	170	20	226	246	18	105	1,785
Danish	113	62	153	38	10	28	26	82	51	3	80	646
Dutch	227	36	339	55	27	96	39	218	53	2	151	1,263
Finnish	28	12	20	2	3	2	1	8	4	3	16	99
French	390	71	554	72	42	116	92	464	73	8	552	2,434
Greek	6	8	28	5	2	10	4	35	13	3	16	130
Indian	887	297	422	219	74	92	42	313	195	44	148	2,733
Indonesian	113	104	161	120	22	75	25	154	232	5	73	1,084
Irish	40	29	113	5	16	18	18	46	18	9	13	325
Israeli	47	20	78	20	6	9	5	40	25	3	124	377
Italian	290	334	699	133	97	162	69	661	43	21	308	2,717
Japanese	6,398	513	2,525	549	361	528	197	3,139	608	144	956	15,838
Korean	254	20	164	41	19	50	9	185	136	6	41	925
Mexican	27	50	70	33	3	28	7	71	6	1	16	312
New Zealander	344	457	317	79	70	137	125	327	70	99	67	2,092
Norwegian	59	53	102	27	6	7	5	95	28	2	26	410
Pakistani	195	80	106	71	17	22	35	109	110	1	51	797
Polish	1	3	3	2	-	-	-	3	1	-	1	14
Portuguese	63	94	148	34	14	43	5	132	20	1	104	698
Spanish	103	75	197	37	22	34	18	141	5	2	73	707
Swedish	164	73	227	33	20	50	42	118	35	2	63	827
Swiss	242	136	279	23	22	109	15	320	35	7	356	1,544
Thai	95	103	175	162	24	142	31	298	451	1	98	1,980
Vietnamese	34	70	105	100	15	18	26	108	134	4	51	665
Stateless	2	3	4	1	-	2	5	5	4	-	2	28
Others	606	470	1,040	450	166	321	122	738	424	22	408	4,767

Sources: R/D Cards, Airline and Shipping Lines.

Table IV.6—DISTRIBUTION OF VISITOR ARRIVALS BY NATIONALITY AND PURPOSE OF VISIT  
PHILIPPINES, 1970  
(Number)

NATIONALITY	Pleasure/ Holiday	Business	Official Mission	Others <sup>1/</sup>	Not Reported	TOTAL
American .....	48,291	7,030	3,066	9,018	2,071	69,476
Argentinian .....	262	11	8	52	1	334
Australian .....	8,284	2,311	343	1,285	165	12,388
Austrian .....	149	40	27	55	8	279
Belgian .....	309	39	55	38	15	456
Brazilian .....	214	3	27	72	-	316
British .....	4,920	2,661	446	1,277	100	9,404
Burmese .....	6	10	28	36	-	80
Canadian .....	2,996	390	132	276	46	3,840
Chinese .....	462	275	317	603	128	1,785
Danish .....	332	157	44	99	14	646
Dutch .....	605	332	48	244	34	1,263
Finnish .....	38	32	8	14	7	99
French .....	1,619	425	96	268	26	2,434
German .....	1,428	889	107	276	41	2,741
Greek .....	52	23	7	43	5	130
Indian .....	1,640	260	264	496	73	2,733
Indonesian .....	322	147	322	276	17	1,084
Irish .....	186	78	14	38	9	325
Israeli .....	223	26	47	81	-	377
Italian .....	2,058	184	106	349	20	2,717
Japanese .....	7,999	5,516	589	1,942	192	15,838
Korean .....	322	140	191	951	21	925
Mexican .....	238	11	7	55	1	312
New Zealander ....	1,381	318	98	257	38	2,092
Norwegian .....	206	72	35	79	18	410
Pakistani .....	347	69	144	215	22	797
Polish .....	10	2	2	-	-	14
Portuguese .....	586	9	13	46	4	658
Spanish .....	467	63	24	134	19	707
Swedish .....	454	198	46	103	26	827
Swiss .....	1,200	205	25	110	4	1,544
Thai .....	618	169	393	384	16	1,580
Vietnamese .....	156	26	283	188	12	665
Stateless .....	23	3	1	1	-	28
Others .....	2,294	472	764	1,163	74	4,767
TOTAL .....	90,297	22,596	8,127	19,824	3,227	144,071
Per Cent .....	62.68	15.68	5.64	13.76	2.24	100.00

<sup>1/</sup> Includes visitors on study tour, visitors with family affairs, etc.

Sources: E/D Cards Airline and Shipping Offices.

Owing to the establishment of more hotels of international standards, the majority of visitors in 1970 (69.36 percent) stayed in hotels. Of the remaining 30.64 percent, some stayed with their friends and relatives (10.06 percent) on board ship (6.37 percent); at the military camps and bases (3.38 percent); in religious institutions (2.22 percent); and in apartments or rented homes (0.85 percent). Some 7.76 percent were guests of the airlines, shipping companies, embassies and consulates, the government, and others (See Table IV.7).

Table IV.7—DISTRIBUTION OF VISITOR ARRIVALS BY PLACE OF STAY, PHILIPPINES: 1966-1970

Place of Stay	1966		1967		1968		1969		1970	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hotel .....	67,918	66.79	71,825	66.01	78,369	69.53	85,721	69.54	99,928	69.36
Apartment/Rented/Home .....	2,247	2.21	4,012	3.69	1,409	1.25	1,011	0.82	1,225	0.85
With Friends/Relatives .....	6,135	6.03	10,882	10.00	8,375	7.43	12,092	9.81	14,494	10.06
Military Camp .....	4,545	4.47	4,598	4.23	3,562	3.16	4,056	3.29	4,870	3.38
Religious Institution .....	2,143	2.11	946	0.87	169	0.15	2,835	2.30	3,198	2.22
On Board Ship .....	15,544	15.28	14,460	13.29	13,126	11.65	10,921	8.86	9,175	6.37
Others <sup>1/</sup> .....	3,163	3.11	2,082	1.91	7,703	6.83	6,632	5.38	11,181	7.76
TOTAL .....	101,695	100.00	108,805	100.00	112,713	100.00	123,268	100.00	144,071	100.00

<sup>1/</sup> Places of stay being taken care of by personnel of airline and shipping lines, embassies and consulates, government, and private offices and hotels and restaurants.

Source: R/D Cards, Airline and Shipping Offices.

Total tourist receipts in 1970 is estimated at US \$ 32 million. This is based on visitors' average stay of 7.3 days and on individual visitor's daily expenditure of \$30.50. With further classification of these expenditures by category of spending, it has been noted that shopping appeared to be the heaviest expenditure item of foreign visitors. This would naturally imply that because of the money exchange rate moving up from P3.90 to P6.25 per dollar, local goods being bought in the Philippines are cheaper by 50 percent, compared to two years ago.

There were 244,953 incoming passengers registered in 1970; of this number 90,180 were Filipinos and 154,773 foreigners. (See Table IV.8).

Air passenger arrivals have increased by 93.12 percent over a period of five (5) years. In 1970, there were 237,632 air passenger arrivals; an increase of 15.86 percent over 1969.

Air passenger departures have considerably increased over a period of five (5) years. In 1970, there were 280,997 passenger departures, an increase of 18.40 percent over that in 1969.

The following tables show the number of arrivals (Inward Passenger Movement) for CY 1970 and departures (Outward Passenger Movement) also for CY 1970, both in the categories of immigrants and non-immigrants. (See Table IV.9 and Table IV.10).

Table IV.8—DISTRIBUTION OF INCOMING PASSENGERS BY NATIONALITY,  
PHILIPPINES: 1969 - 1970

(Number)

NATIONALITY	1969	1970
American .....	64,316	71,639
Argentinian .....	180	333
Australian .....	6,191	8,148
Austrian .....	200	276
Belgian .....	259	439
Brazilian .....	175	324
British .....	8,016	8,643
Burmese .....	45	56
Canadian .....	2,631	3,872
Chinese .....	16,267	12,067
Danish .....	513	588
Dutch .....	1,446	1,496
Finnish .....	79	101
French .....	1,270	2,846
German .....	3,165	2,968
Greek .....	127	118
Indian .....	2,274	3,586
Indonesian .....	2,133	1,504
Irish .....	216	344
Israeli .....	290	423
Italian .....	1,170	3,168
Japanese .....	16,514	15,612
Korean .....	1,011	1,213
Mexican .....	667	308
New Zealander .....	671	1,245
Norwegian .....	499	557
Pakistani .....	425	869
Polish .....	21	16
Portuguese .....	263	790
Spanish .....	906	1,019
Swedish .....	721	807
Swiss .....	1,118	1,746
Thai .....	2,488	2,771
Vietnamese .....	789	730
Stateless .....	51	67
Others .....	3,600	4,085
Total .....	140,716	154,773
Filipino .....	79,619	90,180
GRAND TOTAL .....	220,335	244,953

Source: Bureau of Immigration.

Table IV.9.—DISTRIBUTION OF INWARD PASSENGER MOVEMENT BY NATIONALITY PHILIPPINES, 1970

Nationality	N u m b e r												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Total	9,822	7,970	9,663	13,953	12,835	14,600	18,733	15,041	12,036	11,998	10,307	11,603	147,761
American	4,240	2,473	3,600	6,446	6,277	7,168	9,853	6,951	5,955	5,298	4,144	5,420	67,785
Argentinian	34	7	7	34	37	18	16	43	30	13	6	1	246
Australian	699	496	538	937	1,045	668	747	795	608	487	431	560	7,971
Austrian	8	23	36	25	14	10	99	14	21	20	20	25	275
Belgian	115	19	30	24	53	28	69	34	52	34	32	34	524
Brazilian	7	10	7	12	11	48	44	30	132	5	4	5	315
British	690	639	1,107	742	763	705	958	770	673	637	702	703	9,099
Burmese	4	4	16	25	-	4	1	1	1	3	2	-	61
Canadian	185	157	450	390	411	323	490	386	353	201	188	299	3,793
Chinese	679	642	841	1,188	1,194	2,128	1,663	883	296	907	735	716	11,877
Danish	40	47	58	38	47	56	75	34	46	63	58	49	611
Dutch	121	113	141	108	122	88	138	104	54	100	120	112	1,321
Finnish	10	8	3	19	4	3	6	9	25	10	4	15	116
French	119	94	124	224	479	128	286	509	230	104	135	152	2,984
German	251	213	234	222	273	216	229	223	201	239	281	240	2,822
Greek	15	8	15	12	9	7	15	19	8	11	9	13	141
Indian	178	154	162	206	173	336	354	462	229	178	248	236	2,916
Indonesian	85	54	72	145	128	116	193	145	161	135	143	73	1,450
Irish	36	32	46	62	39	26	41	26	19	52	25	24	428
Israeli	18	17	31	43	16	8	31	49	61	20	16	29	339
Italian	123	82	95	162	225	247	196	635	210	218	281	123	2,997
Japanese	1,376	1,555	916	1,253	689	931	1,417	1,406	1,119	1,491	1,381	1,720	15,254
Korean	59	62	88	101	50	58	79	103	97	175	131	56	1,099
Mexican	20	4	21	31	16	11	10	35	62	22	21	12	265
New Zealander	46	62	77	82	71	241	224	77	101	60	51	65	1,197
Norwegian	37	62	35	31	10	47	27	31	71	27	26	40	444
Pakistani	81	75	75	84	44	62	159	107	88	99	58	26	918
Polish	1	6	104	4	-	-	2	1	1	-	-	2	121
Portuguese	17	7	62	69	8	58	65	172	75	18	21	20	992
Spanish	68	64	88	67	56	79	161	62	86	95	87	81	994
Swedish	45	67	63	89	37	39	54	50	81	99	94	80	798
Swiss	83	74	130	199	116	88	231	178	64	88	95	105	1,451
Thai	140	58	141	293	127	308	386	119	141	298	259	153	2,423
Vietnamese	35	40	41	97	50	30	41	85	45	32	86	40	622
Stateless	2	3	-	-	4	6	3	14	1	1	1	9	44
Others	195	139	209	489	237	311	410	479	639	428	412	405	4,353
FILIPINOS ..... 86,215 <span style="float: right;">Thru passengers ..... 79,299</span>													

Source: Bureau of Immigration.

FOREIGN VISITORS

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Table IV 10- DISTRIBUTION OF OUTGOING PASSENGERS BY NATIONALITY AND MONTH OF DEPARTURE, 1970

NATIONALITY	January	February	March	April	May	June	July	August	September	October	November	December	Total
TOTAL	10,999	8,309	8,746	14,271	19,005	13,155	15,855	16,273	13,598	11,187	9,401	10,702	151,501
American	4,616	3,603	2,516	6,315	9,394	6,650	9,486	7,992	6,633	5,074	3,952	4,295	70,556
Argentinian	31	18	5	1	9	49	14	37	42	7	10	10	233
Australian	729	149	453	1,030	1,181	643	671	804	693	522	385	501	7,761
Austrian	30	18	14	19	21	27	72	22	22	27	16	22	310
Belgian	102	47	36	39	71	71	41	51	67	45	21	22	615
Brazilian	8	17	5	8	11	4	17	24	73	17	4	7	195
British	606	661	738	850	770	800	691	816	768	624	642	645	8,611
Burmese	5	7	3	17	22	3	3	1	17	3	0	5	86
Canadian	199	147	404	397	503	399	431	416	364	173	165	138	3,736
Chinese	1,418	787	1,080	1,181	2,214	1,040	1,058	769	758	980	652	685	12,622
Danish	44	43	64	62	45	43	49	31	30	65	99	36	571
Dutch	100	80	195	139	195	106	119	114	89	86	96	108	1,427
Finnish	10	7	9	10	8	7	5	5	13	12	5	6	97
French	17	114	98	241	500	129	239	644	205	93	113	145	2,528
German	230	219	274	308	404	208	205	236	200	243	234	238	2,999
Greek	8	11	8	11	13	9	11	17	11	12	12	25	148
Indian	187	125	204	299	268	359	305	369	502	202	162	280	3,282
Indonesian	86	42	52	127	148	97	103	154	153	139	93	141	1,335
Irish	32	31	53	54	40	24	21	14	19	30	13	17	348
Israeli	15	26	20	6	86	7	30	52	63	36	11	27	379
Italian	117	68	101	192	453	231	192	648	245	171	237	141	2,796
Japanese	1,489	1,328	1,169	1,288	907	920	1,122	1,440	1,014	1,399	1,374	1,881	15,331
Korean	37	72	86	105	122	89	66	65	138	124	129	86	1,119
Mexican	24	4	15	39	13	20	14	31	43	23	31	14	271
New Zealander	41	49	61	88	121	242	89	100	130	58	49	54	1,082
Norwegian	42	24	34	41	33	37	23	34	37	28	28	29	388
Pakistani	21	40	49	76	86	57	107	129	61	79	51	59	835
Polish	0	3	0	108	2	0	2	3	0	0	2	0	120
Portuguese	23	14	65	58	159	55	38	168	73	20	23	24	720
Spanish	62	70	68	163	100	108	75	128	119	74	34	96	1,097
Swedish	52	47	63	68	106	43	12	55	79	70	71	53	719
Swiss	98	92	131	172	195	96	32	308	136	90	97	110	1,457
Thai	98	73	90	310	343	178	134	121	120	168	268	240	2,143
Thailander	27	24	36	44	70	23	42	38	66	61	24	151	606
Vietnamese	9	13	6	3	6	15	13	14	7	8	11	6	111
Stateless	386	236	509	402	386	366	330	523	588	424	312	405	4,867
Others													
Philippines	126,956												

Source: Bureau of Immigration.

## CHAPTER V. — VITAL STATISTICS

Vital statistics are records of births, deaths and marriages registered in the provinces and cities of the Philippines. A knowledge of vital statistics is important for the interpretation of population development such as the rate of growth of population, the rate of reproduction or the fertility of the women and the age and sex distribution of the population. Furthermore, before any plan for development in any field could be made, data about the people of a country should be known. This is especially true in the fields of public health, education, community planning and various types of business activities.

This chapter includes the most recent data available at the time of preparation; some tables, therefore, include 1969 data while others are for 1968 only. In all cases, a fairly detailed coverage on vital statistics information is given, such as births and deaths by sex or by age distribution, births and deaths by type of attendance, main cause of deaths and marriages by place of occurrence. It also presents a comparison of the principal Philippine vital statistics rate with those of other countries.

### Historical Background

In 1940, the position of Civil Registrar General was transferred from the Director of the National Library to the Director of the Bureau of the Census and Statistics. This was made possible with the enforcement of the Civil Registry Law by virtue of Commonwealth Act 591. As Civil Registrar General, the Director of the Bureau of the Census and Statistics directs and supervises all local civil registrars. In cities, the local civil registrars are the officials designated in their respective city charters, while in municipalities and municipal districts, the local civil registrars are the municipal treasurers, respectively.

Since then, a copy of each document of vital event registered during the preceding month is subsequently sent to the Office of the Civil Registrar General within the first ten days of the succeeding month for filing and statistical compilation purposes. The legal basis of the registration of vital events in the Philippines is Act No. 3753, otherwise known as the Civil Registry Law, which was amended by the Civil Code (R.A. 386).

### Availability and Accuracy of Data

Vital statistics data presented in this chapter are based on reports of local civil registrars in the entire archipelago. As mentioned earlier, the Central Office of the Bureau of the Census and Statistics is furnished copies of all vital events registered all over the Philippines, which are then compiled and tabulated to serve as basis for further studies of the different characteristics of the population.

The data however, are not free from errors or limitations as evident in all of the resulting computations of vital statistics rates. This is so because of several factors, namely:

- 1) Under-reporting — On the average only about 90 percent or even less of all local civil registrars send in reports from year to year.
- 2) Under-registration — Not all vital events occurring in the locality are actually registered in the local civil registrar office, due to lack of efficient educational information system regarding the importance of the registration of any vital event to the pertinent authorities.
- 3) Poor and inadequate means of transportation and communication facilities in remote places which hamper the early submission of vital documents to the Central Office of the Civil Registrar General.

Recently, efforts to improve the collection of vital statistics have been adopted. For this purpose, barrio captains all over the Philippines have been trained and deputed to assist in the registration of vital events in their respective barrios and sitios. Municipal census supervisors have been appointed to collect the vital documents every month and submit to the local civil registrars concerned for registration. A move to transfer this function of local municipal treasurers to the local census officers is presently underway and in the future this function will be taken over completely by census personnel all over the country.



## SUMMARY OF VITAL STATISTICS

Table V.I gives a summary for reference purposes of the principal vital statistics of the Philippines from 1903 to 1969 while Table V.Ia presents vital statistics by region from 1958 on-ly since provincial or regional data prior to 1958 are not available. Other vital statistics, even in the national level are utterly lacking, such as foetal deaths, number of infant mortality from 1903 to 1925 and number and rate of marriages from 1903 to 1915. There are no available data for the years 1924 to 1925, while the unavailability of data for 1941 to 1945 is understandable because of World War II.

For detailed analytical purposes, only the years with more complete data were used. Vital statistics extending as early as 1903 were included in Table V.I purposely to offer interesting possibilities for those who are historically inclined.

Table V.I.—PHILIPPINE VITAL STATISTICS: 1903 - 1969

Year	Population ('000)	Births		Deaths		Natural Increase		Infant Mortality		Marriages	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1903	7,635	284,800	37.3	329,671	43.2	(44,870)	(5.9)	-	155.8	-	-
1904	7,699	216,176	28.2	146,894	19.2	69,282	9.0	-	68.0	-	-
1905	7,699	244,586	31.8	166,555	21.6	78,031	10.1	-	68.1	-	-
1906	7,761	215,296	27.7	143,284	18.5	72,012	9.3	-	66.6	-	-
1907	7,844	258,010	32.9	138,464	17.7	119,546	15.2	-	53.7	-	-
1908	8,094	278,369	34.4	190,495	23.5	87,874	11.0	-	47.2	-	-
1909	8,095	234,726	29.0	179,355	22.2	55,371	6.8	-	73.6	-	-
1910	8,220	290,210	35.3	191,976	23.3	98,234	12.0	-	66.0	-	-
1911	8,387	302,855	36.1	188,412	22.5	114,443	13.6	-	62.2	-	-
1912	8,576	290,995	33.9	185,185	21.6	105,810	12.3	-	63.6	-	-
1913	8,786	316,096	36.0	154,086	17.5	161,970	18.4	-	48.8	-	-
1914	9,017	347,337	38.5	163,943	18.2	183,394	20.3	-	47.2	-	-
1915	9,269	327,008	35.3	176,313	19.0	150,693	16.3	-	52.9	-	-
1916	9,542	340,629	35.7	195,970	20.5	144,659	15.2	-	77.5	74,964	7.9
1917	9,836	353,283	35.9	212,334	21.6	140,949	14.3	-	60.1	81,165	8.3
1918	10,314	345,751	33.5	367,106	35.6	(21,355)	(2.1)	-	106.2	77,160	7.5
1919	10,324	306,832	29.7	326,716	31.6	(19,884)	(1.9)	-	106.5	77,841	7.5
1920	10,445	351,195	33.6	200,690	19.2	150,505	14.4	-	97.2	77,898	7.5
1921	10,673	364,432	34.1	205,654	19.3	158,778	14.9	-	96.4	71,737	6.7
1922	10,908	373,506	34.2	203,377	18.6	170,129	15.6	-	54.4	67,708	6.2
1923	11,152	385,418	34.6	202,981	18.2	182,437	16.4	-	52.6	75,999	6.6
1924	11,405	-	-	-	-	-	-	-	-	-	-
1925	11,666	-	-	-	-	-	-	-	-	-	-
1926	11,935	400,439	33.6	229,928	19.3	170,511	14.3	62,753	156.7	86,779	7.3
1927	12,212	414,397	33.9	229,328	18.8	185,069	15.2	63,205	152.5	93,205	7.6
1928	12,498	422,716	33.8	218,096	17.5	204,620	16.4	63,441	150.1	72,639	5.8
1929	12,786	428,568	33.5	237,733	18.6	190,835	15.0	69,334	161.6	67,613	5.3
1930	13,084	429,245	32.8	259,988	19.9	169,257	12.9	68,580	168.0	58,520	4.5
1931	13,405	440,159	32.8	240,825	18.0	199,334	14.9	68,290	155.1	70,182	5.2
1932	13,724	446,940	32.6	211,809	15.4	235,131	17.1	61,511	137.6	77,797	5.7
1933	14,051	459,682	32.7	227,594	16.2	232,088	16.5	67,002	145.8	77,691	5.5
1934	14,387	447,738	31.1	239,703	16.7	208,035	14.5	72,008	160.8	78,517	5.5
1935	14,731	461,410	31.3	257,181	17.5	204,229	13.9	70,793	153.4	79,254	5.4
1936	15,084	485,126	32.2	239,107	15.9	246,019	16.3	64,999	134.1	90,732	6.0
1937	15,445	513,760	33.3	254,740	16.5	259,020	16.8	70,515	137.3	100,273	6.5
1938	15,814	512,389	32.4	261,848	16.6	250,541	15.8	71,239	139.0	95,526	6.1
1939	16,000	522,432	32.7	273,141	16.9	249,291	15.6	76,377	146.2	95,618	6.0
1940	16,460	535,217	32.5	273,480	16.6	261,737	15.9	72,647	135.8	97,971	6.0
1941	16,774	-	-	-	-	-	-	-	-	-	-
1942	17,093	-	-	-	-	-	-	-	-	-	-
1943	17,419	-	-	-	-	-	-	-	-	-	-
1944	17,751	-	-	-	-	-	-	-	-	-	-
1945	18,090	-	-	-	-	-	-	-	-	-	-
1946	18,434	533,283	28.9	278,546	15.1	254,737	13.8	66,902	125.5	115,768	6.3
1947	18,786	572,226	30.5	238,527	12.7	333,699	17.8	63,809	234.4	110,272	5.9
1948	19,234	602,415	31.3	243,467	12.7	358,948	18.7	68,897	114.4	128,646	6.7
1949	19,509	609,138	31.2	231,151	11.8	377,987	19.4	66,114	108.5	123,003	6.3
1950	19,881	642,472	32.3	228,505	11.4	413,967	20.9	65,273	101.6	125,148	6.3
1951	20,260	637,264	31.5	237,937	11.7	399,327	19.7	67,209	105.5	131,484	6.5
1952	20,646	646,725	31.4	241,020	11.7	405,705	19.7	65,883	101.6	131,210	6.4
1953	21,039	668,489	31.8	239,988	11.4	428,501	20.4	69,720	148.8	127,881	6.1
1954	22,869	702,662	30.7	217,650	9.5	503,012	21.2	66,175	94.2	-	-
1955	23,566	734,761	31.2	212,798	9.0	521,963	22.1	61,958	84.3	-	-
1956	24,288	742,249	30.6	205,581	8.5	536,668	22.1	60,136	110.9	127,171	5.2
1957	25,030	714,202	28.5	199,919	8.0	514,283	20.5	58,028	112.9	122,182	4.5
1958	25,795	684,592	26.5	185,437	7.2	499,155	19.3	52,923	109.2	129,280	5.0
1959	26,584	616,893	23.2	176,448	6.6	440,445	16.6	57,990	93.4	141,876	5.3
1960	27,080	628,502	23.2	182,643	7.1	445,859	16.1	53,675	85.4	129,048	4.8
1961	28,212	647,846	23.0	207,436	7.3	440,410	15.8	57,280	88.4	153,307	5.4
1962	29,062	775,146	26.7	169,880	5.9	605,266	20.8	45,440	86.6	156,817	5.4
1963	29,937	786,698	26.3	214,412	7.2	572,286	19.1	57,308	72.9	155,081	5.2
1964	30,839	802,648	26.0	222,097	7.2	580,551	18.8	56,611	70.5	174,283	5.7
1965	31,768	795,415	25.0	234,935	7.4	560,480	17.6	57,988	72.9	184,268	5.8
1966	32,725	823,342	25.2	236,396	7.2	586,946	17.9	59,284	72.0	185,921	5.7
1967	33,711	840,302	24.9	240,222	7.1	600,080	17.8	60,703	78.2	189,897	5.6
1968	34,726	898,570	25.9	261,893	7.5	636,677	18.3	63,786	71.0	210,520	6.1
1969	35,771	946,753	26.5	241,678	6.8	705,075	19.7	63,719	67.3	231,201	6.5

1/ Per 1,000 population

2/ Per 1,000 live births

Sources: Data for 1903 - 1918 - Statistical Bulletin of the Philippines No. 3 series of 1920. Data for 1919 - 1923 - Statistical Bulletin of the Philippines No. 7 series of 1924. Data for 1926 - 1940 Yearbook of Philippine Statistics: 1940. Number for 1926 - 1952 - Bureau of Health, 1953-1969 Bureau of the Census and Statistics, Demography Division.

## VITAL STATISTICS

Table V.1a—SUMMARY OF VITAL STATISTICS BY REGION: 1958-1969

Year and Region	Population (1000)	Live Birth		Deaths		Natural Increase		Infant Mortality		Fetal Deaths	Maternal Mortality		Marriage	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate		Number	Rate	Number	Rate
1958	25,795	484,592	18.6	185,437	7.2	299,155	11.6	52,923	109.2	5,029	2,235	46.1	129,280	5.0
Manila	1,119	60,212	53.8	11,975	10.7	48,237	43.1	4,289	71.2	10	98	16.3	7,957	7.1
Iloos and Mt. Province	1,419	25,554	18.0	9,001	6.3	16,553	11.7	2,280	89.2	417	114	44.6	5,432	3.8
Cagayan Valley	976	24,052	24.6	10,216	10.5	13,836	14.2	3,814	158.6	344	129	53.6	5,392	5.5
Central Luzon	3,554	91,132	25.6	31,510	8.9	59,622	16.7	8,693	95.4	1,298	277	30.4	21,533	6.1
Southern Luzon and Island	3,939	92,032	23.4	32,931	8.4	59,101	15.0	9,301	106.5	988	266	28.9	25,704	6.3
Ilocos and Masbate	2,254	33,994	15.1	14,317	6.4	19,677	8.7	3,580	105.3	371	286	84.1	9,608	4.3
Western Visayas	3,130	25,123	8.0	18,978	6.1	6,145	2.0	4,750	189.1	247	205	81.6	13,152	4.2
Eastern Visayas	4,474	67,394	15.1	30,959	6.9	36,435	8.1	7,892	117.1	629	530	78.6	18,225	4.1
Northern Mindanao	1,980	25,777	13.0	11,570	5.8	14,207	7.2	3,707	143.8	434	180	69.8	9,372	4.6
Southern Mindanao and Sulu	2,950	39,352	13.3	13,880	4.7	25,472	8.6	4,117	104.6	291	150	38.1	13,905	4.7
1959	36,584	615,893	23.2	176,448	6.6	440,445	16.6	57,590	93.4	8,950	2,114	34.3	141,876	5.3
Manila	1,130	68,815	60.9	10,514	9.4	58,301	51.5	4,805	69.8	691	112	16.3	6,584	5.8
Iloos and Mt. Province	1,451	31,214	21.5	9,139	6.3	22,075	15.2	2,380	76.2	398	131	41.1	6,318	4.3
Cagayan Valley	1,014	31,850	31.4	9,478	9.4	22,372	22.1	3,327	104.5	471	126	36.6	6,921	6.8
Central Luzon	3,638	111,278	30.6	28,345	8.0	82,933	22.6	9,553	85.9	1,707	247	22.2	23,757	6.5
Southern Luzon and Island	4,118	121,357	29.5	28,418	6.9	92,939	22.6	9,816	80.9	2,209	290	23.9	27,739	6.7
Ilocos and Masbate	2,321	49,320	21.2	17,302	7.4	32,018	13.8	4,281	86.8	619	234	47.4	10,333	4.4
Western Visayas	3,179	35,237	11.1	16,499	5.2	18,738	5.9	4,592	130.3	405	175	49.7	13,654	4.3
Eastern Visayas	4,528	81,488	18.0	30,835	6.8	50,653	11.2	9,438	115.8	1,346	499	61.2	22,952	5.1
Northern Mindanao	2,060	35,831	17.4	11,831	5.7	24,000	11.6	4,477	125.0	621	164	45.8	15,506	5.1
Southern Mindanao and Sulu	3,145	50,488	16.1	13,387	4.3	37,101	11.8	4,921	97.4	483	136	26.9	13,112	4.2
1960	27,088	628,502	23.2	192,643	7.1	435,859	16.1	53,675	85.4	9,966	1,981	31.5	143,048	5.3
Manila	1,139	71,728	63.0	13,323	11.7	58,405	51.3	4,456	62.1	966	115	16.0	9,133	8.0
Iloos and Mt. Province	1,469	35,360	24.1	9,190	6.3	26,170	17.8	2,278	64.4	472	83	23.5	5,935	4.0
Cagayan Valley	1,035	33,149	32.0	12,143	11.7	21,006	20.3	3,930	118.6	263	105	31.7	4,964	4.8
Central Luzon	3,691	117,542	31.9	31,573	8.6	85,969	23.2	8,829	75.1	1,821	212	18.0	20,820	5.6
Southern Luzon and Island	4,233	124,452	29.4	33,991	7.8	90,461	21.6	9,597	77.1	1,974	258	20.7	27,177	6.4
Ilocos and Masbate	2,364	50,395	21.3	18,341	8.2	32,054	13.6	4,153	82.4	465	227	45.0	10,380	4.4
Western Visayas	3,209	32,467	13.2	18,549	5.8	14,318	4.5	4,861	147.9	385	178	54.1	14,994	4.7
Eastern Visayas	4,564	73,663	16.1	32,933	7.2	40,730	8.9	8,401	114.0	1,063	521	70.7	26,141	5.7
Northern Mindanao	2,111	35,997	16.1	11,416	5.4	22,581	10.7	3,651	107.4	1,902	176	51.8	9,604	4.6
Southern Mindanao and Sulu	3,273	55,349	16.9	12,084	3.7	43,265	13.2	5,519	63.6	655	106	19.2	13,900	4.2
1961	28,212	647,864	23.0	207,436	7.3	440,410	15.8	57,280	88.4	11,007	2,023	31.2	153,307	5.4
Manila	1,164	67,143	57.7	11,562	9.9	55,581	47.8	4,699	70.0	926	84	12.5	9,400	8.1
Iloos and Mt. Province	1,516	36,591	24.2	10,158	6.7	26,433	17.5	2,462	67.1	583	103	28.0	6,399	4.2
Cagayan Valley	1,085	36,799	33.9	10,965	10.1	25,834	23.8	3,784	102.8	567	156	42.4	6,336	5.8
Central Luzon	3,854	119,650	31.0	34,222	8.9	85,428	22.2	9,504	79.4	2,178	219	18.3	23,691	6.1
Southern Luzon and Island	4,521	123,747	27.4	35,064	7.8	88,683	19.6	9,848	79.6	2,338	255	20.6	31,735	6.9
Ilocos and Masbate	2,428	52,397	21.5	17,959	7.4	34,438	14.1	4,274	81.6	775	189	36.0	11,292	4.6
Western Visayas	3,286	39,781	12.1	22,635	6.9	17,146	5.2	5,386	135.4	604	169	42.5	16,017	4.9
Eastern Visayas	4,772	79,460	17.0	38,865	8.3	40,595	8.7	5,490	114.4	1,536	516	64.9	26,794	5.2
Northern Mindanao	2,214	37,784	16.8	12,640	5.7	24,444	11.0	3,326	107.4	889	192	51.6	9,659	4.4
Southern Mindanao and Sulu	3,462	55,094	15.9	13,366	3.9	41,728	12.0	4,007	72.7	711	140	25.4	14,784	4.3
1962	29,062	775,146	26.7	169,880	5.9	605,266	20.8	45,440	58.6	11,480	1,944	25.1	156,817	5.4
Manila	1,183	79,693	67.4	10,064	8.5	69,629	48.9	3,229	54.1	1,313	104	17.4	10,190	8.6
Iloos and Mt. Province	1,548	42,249	27.3	9,155	5.9	33,094	21.4	1,307	30.9	661	99	23.4	6,974	4.5
Cagayan Valley	1,123	53,423	47.6	8,865	7.9	44,558	39.7	2,989	55.9	515	120	22.4	6,212	5.5
Central Luzon	3,978	120,653	30.4	25,678	6.5	94,975	23.9	7,777	51.7	2,135	194	13.8	24,918	6.3
Southern Luzon and Island	4,743	137,500	29.0	29,106	6.1	108,394	22.9	7,905	57.5	2,450	275	27.0	30,713	6.5
Ilocos and Masbate	2,492	80,154	32.4	14,891	6.0	65,263	26.4	3,670	45.5	799	201	44.2	12,675	5.1
Western Visayas	3,341	45,493	13.6	16,532	5.0	28,961	8.7	3,853	74.7	609	141	37.6	15,997	4.5
Eastern Visayas	4,757	100,733	21.1	32,817	6.9	67,916	14.2	7,867	78.3	1,478	485	48.3	25,989	5.5
Northern Mindanao	2,291	42,875	18.7	11,058	4.8	31,817	13.9	3,830	89.3	771	189	44.1	9,637	4.2
Southern Mindanao and Sulu	3,606	72,033	20.0	11,694	3.2	60,339	16.7	3,513	38.8	709	136	18.9	14,452	4.0
1963	29,937	786,698	26.3	214,412	7.2	572,286	19.1	57,308	72.9	12,045	1,783	22.7	155,081	5.2
Manila	1,202	89,150	74.1	13,054	10.9	76,096	64.2	4,161	52.6	1,463	69	8.7	5,671	4.7
Iloos and Mt. Province	1,582	42,943	27.1	10,254	6.5	32,689	20.7	4,273	52.9	621	111	25.8	6,722	4.6
Cagayan Valley	1,161	56,999	49.0	10,957	9.4	46,042	39.6	3,769	101.9	533	105	28.4	6,336	5.5
Central Luzon	4,107	132,986	31.4	30,750	7.4	102,236	24.0	8,183	63.8	2,070	182	13.7	25,249	6.1
Southern Luzon and Island	4,972	162,197	32.6	36,776	7.4	125,421	25.2	10,451	64.4	2,476	202	12.5	31,832	6.4
Ilocos and Masbate	2,549	60,689	23.8	19,863	7.8	40,826	16.0	4,813	79.3	866	193	31.8	13,388	5.2
Western Visayas	3,394	47,372	14.0	22,168	6.5	25,204	7.4	5,123	108.6	725	165	34.8	16,533	4.9
Eastern Visayas	4,837	108,783	22.5	42,532	8.8	66,251	13.7	10,976	92.6	1,767	413	38.0	24,163	5.0
Northern Mindanao	2,377	48,200	20.3	14,307	6.0	33,893	14.3	4,067	84.4	833	164	34.0	10,194	4.3
Southern Mindanao and Sulu	3,756	67,379	17.9	14,351	3.8	53,028	14.1	4,072	60.4	691	127	18.8	15,000	4.0
1964	30,839	802,648	26.0	222,097	7.2	580,551	18.8	56,614	70.5	11,389	1,831	22.8	174,283	5.7
Manila	1,220	78,091	64.0	13,991	11.5	64,100	52.5	4,268	54.6	1,051	86	11.0	10,558	8.7
Iloos and Mt. Province	1,616	40,535	25.1	9,724	6.0	30,811	19.1	1,954	48.2	542	88	21.7	7,086	4.4
Cagayan Valley	1,201	43,058	35.9	12,243	10.2	30,815	25.7	3,815	88.6	543	99	23.0	6,266	5.2
Central Luzon	4,377	130,064	30.7	33,899	8.0	96,165	22.7	8,603	66.1	2,182	202	15.5	27,144	6.4
Southern Luzon and Island	5,212	136,441	30.0	38,977	7.5	97,464	22.5	10,514	67.2	2,367	271	17.3	35,502	6.8
Ilocos and Masbate	2,606	67,550	25.9	19,920	7.6	47,630	18.3	5,020	74.3	844	222	32.7	15,121	5.8
Western Visayas	3,453	55,178	16.0	22,041	6.4	33,137	9.6	4,962	89.9	666	133	24.1	17,132	5.0
Eastern Visayas	4,920	109,695	22.3	40,459	8.2	69,236	14.1	9,185	83.7	1,622	436	39.7	26,703	5.4
Northern Mindanao	2,462	48,754	19.8	14,504	5.9	34,250	13.9	3,865	79.3	890	159	32.6	11,174	4.5
Southern Mindanao and Sulu	3,912	73,282	18.7	16,379	4.2	56,903	14.6	4,428	60.4	682	135	18.4	17,597	4.5
1965	31,768	795,415	25.0	234,935	7.4	560,480	17.6	57,988	72.9	14,454	1,757	22.7	184,268	5.8
Manila	1,239	87,005	70.2	14,191	11.4	72,814	58.8	4,473	51.4	2,508	92	10.6	11,561	9.3
Iloos and Mt. Province	1,651	41,745	25.3	11,214	6.8	30,531	18.5	2,374	56.9	628	99	23.7	7,668	4.6

Table V.1a—SUMMARY OF VITAL STATISTICS BY REGION: 1958-1969 - Continued

Year and Region	Population (1000)	Live Birth		Deaths		Natural Increase		Infant Mortality		Fetal Deaths	Maternal Mortality		Marriage	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate		Number	Rate	Number	Rate
1966	32,725	823,342	25.2	236,396	7.2	586,946	17.9	59,284	72.0	12,125	1,829	22.2	185,921	5.7
Manila	1,258	83,657	66.5	15,660	12.4	67,997	54.0	5,158	61.7	1,821	99	11.8	12,067	9.6
Ilocos and Mt. Province	1,688	44,453	26.3	11,484	6.8	32,969	19.5	2,418	54.4	566	110	24.7	8,140	4.8
Cagayan Valley	1,285	41,353	32.2	12,933	10.1	28,420	22.1	3,546	85.8	551	107	25.9	7,260	5.7
Central Luzon	4,514	141,900	31.4	37,028	8.2	104,872	23.2	9,152	64.5	2,090	185	13.0	31,632	7.0
Southern Luzon and Island	5,723	165,227	28.9	41,234	7.2	123,993	21.7	11,154	67.5	2,632	276	16.7	41,542	7.3
Ricel and Masbate	2,724	66,469	24.4	20,230	7.4	46,239	17.0	4,608	69.3	817	210	31.6	14,416	5.3
Western Visayas	3,565	51,244	14.4	23,987	6.7	27,257	7.7	5,421	105.8	549	151	29.5	16,113	4.5
Eastern Visayas	5,087	110,918	21.8	44,180	8.7	66,738	13.1	9,576	86.3	1,799	416	37.5	24,404	4.8
Northern Mindanao	2,639	67,275	25.5	15,769	6.0	51,506	19.5	4,823	71.7	771	154	22.9	12,536	4.8
Southern Mindanao and Sulu	4,242	50,846	12.0	13,891	3.3	36,955	8.7	3,428	67.4	529	121	23.8	17,813	4.2
1967	33,711	840,302	24.9	240,122	7.1	600,180	17.8	60,703	72.2	12,315	1,822	21.7	189,897	5.6
Manila	1,277	82,881	64.9	16,060	12.6	66,821	52.3	5,309	64.1	1,855	97	11.7	11,843	9.3
Ilocos and Mt. Province	1,725	45,340	26.3	12,176	7.1	33,164	19.2	2,701	59.6	570	84	18.5	8,290	4.8
Cagayan Valley	1,329	38,002	28.6	12,025	9.0	25,977	19.6	3,225	84.9	495	70	18.4	6,756	5.1
Central Luzon	4,661	137,603	29.5	38,304	8.2	99,299	21.3	9,355	68.0	2,118	180	13.1	33,607	7.2
Southern Luzon and Island	5,993	173,841	29.0	43,398	7.2	130,443	21.8	11,737	67.5	2,997	221	12.7	39,285	6.6
Ricel and Masbate	2,786	67,447	24.2	20,800	7.5	46,647	16.7	4,579	67.9	809	215	31.9	13,264	4.8
Western Visayas	3,622	54,850	15.1	24,937	6.9	29,913	8.3	5,376	98.0	635	165	30.0	17,454	4.8
Eastern Visayas	5,171	112,146	21.7	41,578	8.0	70,568	13.7	9,455	86.3	1,706	440	39.2	25,829	5.0
Northern Mindanao	2,732	77,345	28.3	14,965	5.5	62,380	22.9	4,523	58.4	821	163	21.1	13,214	4.8
Southern Mindanao and Sulu	4,415	50,807	11.5	15,979	3.6	34,828	7.9	4,443	87.4	709	187	36.8	20,355	4.6
1968	34,726	898,570	25.9	261,893	7.5	636,677	18.3	63,786	71.0	12,835	1,979	22.0	210,520	6.1
Manila	1,296	88,999	68.4	17,220	13.3	71,779	55.1	5,322	60.1	1,906	102	11.5	13,420	10.3
Ilocos and Mt. Province	1,763	48,023	27.2	12,438	7.1	35,585	20.2	2,432	51.9	623	106	22.0	9,390	5.3
Cagayan Valley	1,374	43,228	31.5	12,461	9.1	30,767	22.4	3,356	77.6	544	80	18.5	8,310	6.0
Central Luzon	4,809	150,229	31.2	38,001	7.9	112,228	23.4	9,625	64.1	2,775	188	12.5	36,134	7.4
Southern Luzon and Island	6,275	182,795	29.1	48,211	7.1	134,584	21.4	12,353	67.6	2,728	276	15.0	46,836	7.5
Ricel and Masbate	2,848	66,444	23.3	22,451	7.9	43,993	15.4	4,699	70.7	821	225	33.9	12,675	4.4
Western Visayas	3,681	58,773	16.0	29,322	8.0	29,451	8.0	6,915	105.4	658	153	26.0	19,901	5.4
Eastern Visayas	5,256	121,070	23.0	47,390	9.0	73,680	14.0	9,963	82.3	668	415	34.3	27,561	5.2
Northern Mindanao	2,829	56,126	19.8	16,544	5.9	39,582	14.0	3,931	70.0	866	216	38.5	14,345	5.1
Southern Mindanao	4,595	83,283	18.1	17,855	3.9	65,428	14.2	5,852	70.3	728	218	26.2	21,748	4.7
1969	35,771	946,753	26.5	241,678	6.8	705,075	19.7	63,719	67.3	11,496	2,047	21.6	231,201	6.5
Manila	1,315	85,124	64.7	16,894	12.9	68,230	51.9	5,633	66.2	1,232	132	15.5	15,402	11.7
Ilocos and Mt. Province	1,801	50,039	27.8	11,369	6.3	38,670	21.5	2,452	49.0	621	97	19.4	9,786	5.4
Cagayan Valley	1,422	45,673	32.1	12,044	8.5	33,629	23.7	3,331	72.9	512	112	24.5	8,150	5.7
Central Luzon	4,965	162,874	32.8	34,671	7.0	128,203	25.8	9,454	58.0	2,092	183	12.2	39,757	8.0
Southern Luzon and Island	6,568	192,768	29.3	43,828	6.7	148,940	22.7	12,944	67.1	2,640	273	14.2	51,338	7.8
Ricel and Masbate	2,912	73,440	25.2	19,806	6.8	53,634	18.4	4,646	63.3	794	229	31.2	15,413	5.3
Western Visayas	3,777	59,598	15.8	25,913	6.9	33,685	8.8	5,961	101.2	651	119	20.2	20,658	5.5
Eastern Visayas	5,340	128,555	24.1	43,526	8.1	85,029	15.9	9,518	74.0	1,412	444	34.5	28,628	5.4
Northern Mindanao	2,928	58,230	19.1	15,382	5.2	42,848	14.6	4,774	82.0	856	202	34.7	15,675	5.3
Southern Mindanao and Sulu	4,783	91,142	19.1	18,245	3.8	72,897	15.2	5,005	54.9	706	256	28.0	26,394	5.5

- 1/ Per 1000 population.  
 2/ Per 1000 live births.  
 3/ Per 10,000 live births.

Sources: DCI Bureau of the Census and Statistics, Demography and Vital Statistics Division.  
 For Maternal Mortality: Department of Health, Disease Intelligence Center.

## BIRTHS

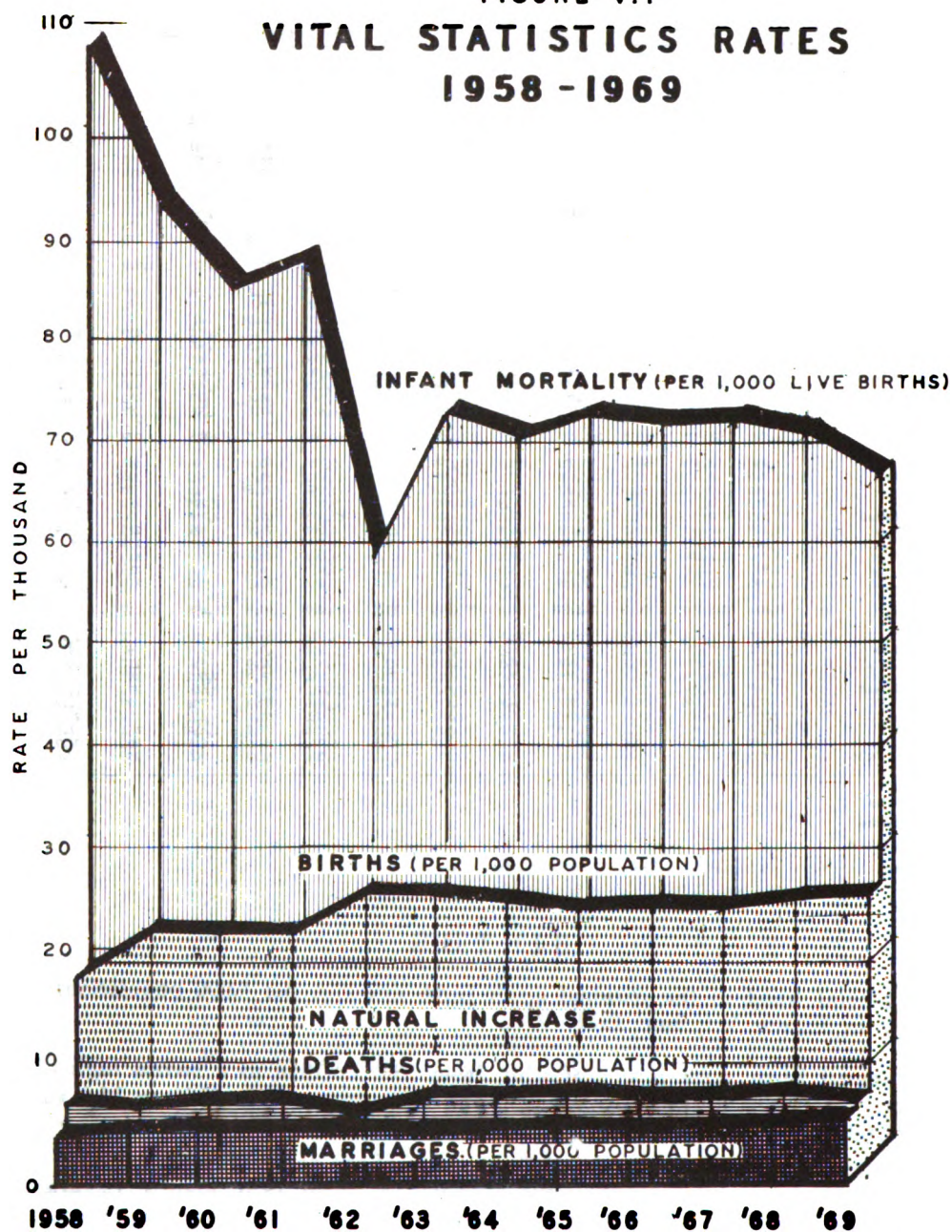
The general trend in the national crude birth rate (i.e. per 1,000 population) since 1958 is shown in Figure V.1 and Table V.1a.

The annual birth rates rose unsteadily from 18.8 in 1958 to a record high of 26.7 in 1962, declined gradually in 1963 up to 1967 and then increased in 1968 to 25.9 and finally to 26.5 in 1969.

The rates among the ten regions followed that of the national trend and have been fairly consistent throughout the years as shown in Table V.1a. In 1958, Manila, Cagayan Valley, Central Luzon and Southern Luzon Islands had birth rates higher than the national average and which were somehow maintained in the succeeding years. On the other hand, Ilocos and Mountain Province, Bicol and Masbate, Eastern and Western Visayas and Southern Mindanao and Sulu came up with rates lower than the national rate for 1958 and the subsequent years.

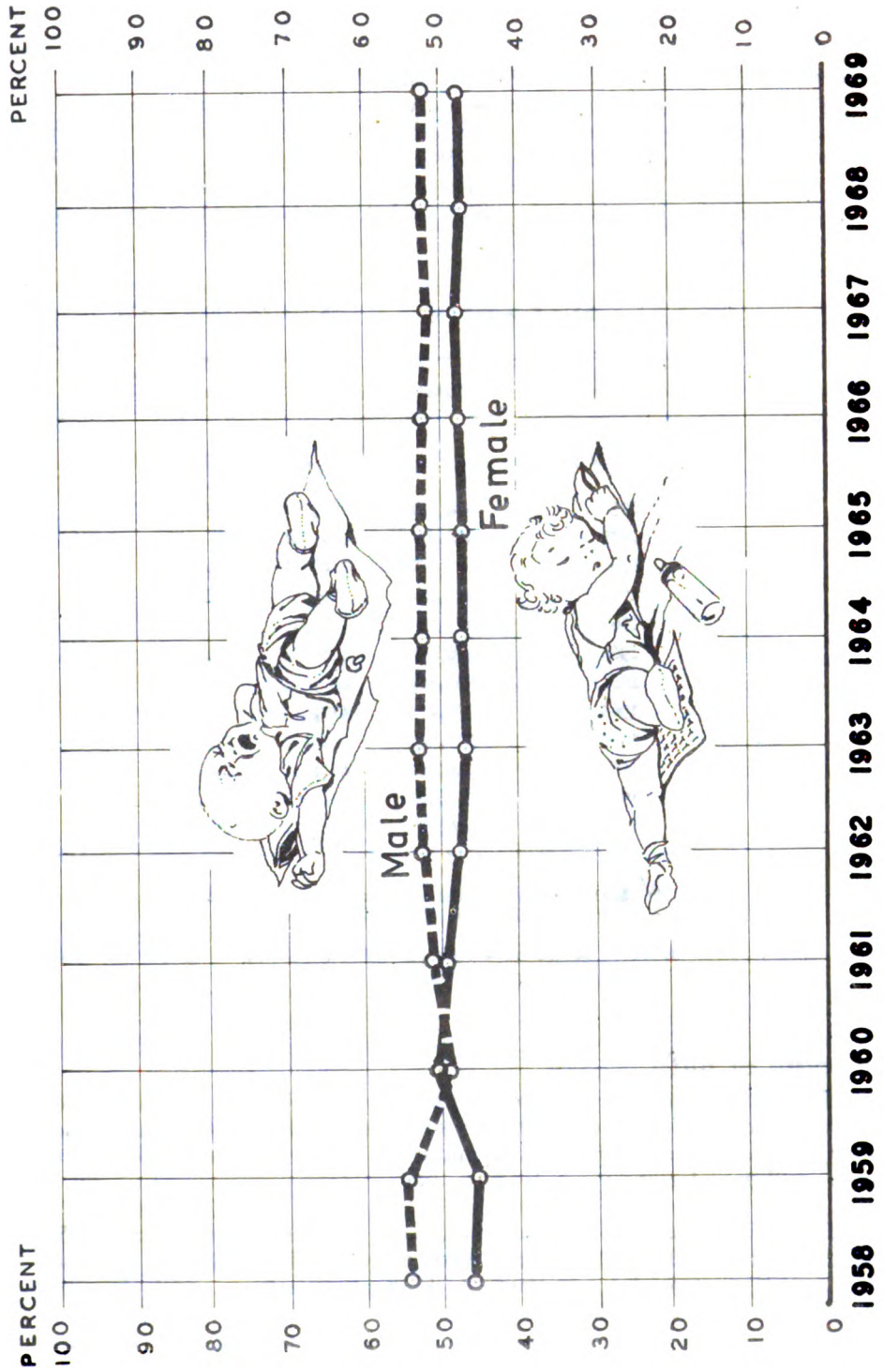
Among all the ten regions, Manila or Region I manifested the highest birth rate annually ranging from 50.5 in 1962 to 70.2 in 1965. This unusual high birth rate in Manila compared with all the other regions or provinces in the Philippines may be due to over-estimation brought about by residents of nearby cities or municipalities who chose to give birth in Manila. Western Visayas, on the other hand, had the lowest annual birth rate, ranging from 8.0 in 1958 to 16.0 in 1964 and 1968. However, Southern Mindanao and Sulu showed birth rates of 12.0 in 1966 and 11.5 in 1967 which were lower than those of Western Visayas for those years.

FIGURE V.1  
**VITAL STATISTICS RATES**  
**1958 - 1969**



SOURCE: DEMOGRAPHY DIVISION,  
 BUREAU OF THE CENSUS AND STATISTICS

FIGURE V.2  
**PERCENT DISTRIBUTION OF LIVE BIRTHS  
 BY SEX: 1958 - 1969**



SOURCE: VITAL STATISTICS REPORT, 1958 - 1969



## Sex of Live Births

Table V.2 shows sex ratios of live births from 1958 to 1969. With very rare exception, wherever birth statistics were collected, they showed an excess of male over female births. This is also true for other countries of the world. So far no conclusive explanation has yet been given regarding this matter. The number of males to every 1,000 females born in the Philippines for the last twelve years (1958-1969) has averaged 1,095. In 1960, there were 981 male infants born to every 1,000 females — the lowest ratio so far. But this predominance of female over the male infants for this period may be due to the exclusion of 1,416 live births whose sex were not reported.

Table V.2—SEX RATIOS OF LIVE BIRTHS: 1958 - 1969

Year	Total	Males	Females	Males to 1,000 Females
Total (12 years)	9,044,702	4,727,206	4,317,503	1,095
1958	484,592 <sup>a/</sup>	260,262	224,330	1,160
1959	616,311 <sup>a/</sup>	336,904	279,407	1,206
1960	627,086 <sup>a/</sup>	310,529	316,557	981
1961	647,846	329,580	318,266	1,036
1962	775,146	404,319	370,827	1,090
1963	786,698	415,754	370,944	1,121
1964	802,648	420,264	382,384	1,099
1965	795,415	417,030	378,385	1,102
1966	823,342	431,422	391,920	1,101
1967	840,302	434,152	406,150	1,069
1968	898,570	471,880	426,690	1,106
1969	946,753	495,110	451,643	1,096

<sup>a/</sup> Excludes live births with sex not reported numbering 982 and 1,416 for 1958, 1959 and 1960, respectively.

Sources: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Attendant at Birth

Births are either attended to by physicians, midwives, nurses or even by persons without any medical background. Table V.3 shows the number of births attended to by medically trained personnel like the physicians, midwives, nurses or non-medically trained persons better known as "hilot" for the years 1958 to 1969.

In 1958, of the 484,592 live births, more than fifty percent or 252,655 were without medical attendance. About 20 percent were delivered by unlicensed midwives, 9 percent by others and 23 percent did not state the kind of attendance. Of the remaining 48 percent with medical attendance, 22 percent were delivered by midwives, 19 percent by physician and about 7 percent by nurses. The same trend prevailed until 1965, when the number of births with medical attendance is less than those without. A breakthrough was achieved in 1966 when the number of births with medical attendance was on the upswing. It is hoped that with the growing awareness of the Filipino people in having proper medical care, quackdoctors, "hilot" and the like would be a thing of the past.

Table V.3—LIVE BIRTHS BY ATTENDANT AT BIRTH: 1958 - 1969

Year	Total	With Medical Attendance								Without Medical Attendance							
		Total		Physician		Nurse		Midwife		Total		Unlicensed Midwife		Others		Not Stated	
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1958	484,650	231,995	47.9	91,592	18.9	33,491	6.9	106,912	22.1	252,655	52.1	96,363	19.9	44,740	9.2	111,552	23.0
1959	616,893	265,246	43.0	108,872	17.6	29,136	4.7	127,238	20.6	351,647	57.0	149,987	24.3	99,510	16.1	102,150	16.6
1960	628,502	305,826	48.7	134,126	21.4	25,737	4.1	145,963	23.2	322,676	51.3	154,436	24.6	76,016	12.1	92,224	14.6
1961	647,846	295,448	45.6	141,379	21.8	32,847	5.1	121,222	18.7	352,398	54.4	178,117	27.5	85,490	13.2	88,791	13.7
1962	775,146	320,721	41.4	115,720	14.9	45,517	5.9	159,484	20.6	454,425	58.6	253,049	32.6	145,872	18.8	55,504	7.2
1963	786,668	376,483	47.9	148,813	19.0	55,194	7.0	172,476	21.9	410,215	52.1	225,898	28.7	150,317	19.1	34,000	4.3
1964	802,648	379,716	47.3	161,598	20.1	46,730	5.8	171,388	21.4	422,932	52.7	254,161	31.7	79,393	9.9	89,378	11.1
1965	795,415	396,694	49.9	177,830	22.4	44,021	5.5	174,843	22.0	398,721	50.1	253,748	31.9	77,211	9.7	67,762	8.5
1966	823,342	413,947	50.3	171,894	20.9	43,220	5.3	198,833	24.1	409,395	49.7	267,408	32.5	72,209	8.7	69,784	8.5
1967	840,302	441,944	52.6	175,016	20.8	40,376	4.8	226,552	27.0	398,358	47.4	273,401	32.5	64,328	7.7	60,629	7.2
1968	898,570	473,810	52.7	208,394	23.2	41,339	4.6	224,077	24.9	424,760	47.3	296,837	33.0	66,846	7.5	61,077	6.8
1969	946,753	496,540	52.4	221,874	23.4	41,264	4.4	233,402	24.6	450,213	47.6	321,830	34.0	68,898	7.3	59,485	6.3

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Order of Birth

Table V.4 shows the order of births of all live-born infants in 1965 to 1969 according to the age of mother. As would be expected, more than three-fourths of the infants born to mothers under 20 years of age were the first-born child whereas almost 56 out of every 100, of the children born to mothers of 20-24 years were their second or later live-born child. In 1969, 285 infants were born to mothers who had not yet reached their 15th birthday, 206 of which were first-born.

Table V.4 - LIVE BIRTHS BY ORDER OF BIRTH AND BY AGE OF MOTHER: 1965 - 1969

Age of Mother	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Not Stated
1965	795,415	167,362	116,541	103,361	89,128	75,770	63,276	48,473	37,883	27,445	46,769	19,407
Under - 15	393	333	-	-	-	-	-	-	-	-	-	60
15 - 19	55,530	40,171	11,063	2,373	466	126	-	-	-	-	-	1,331
20 - 24	202,916	75,625	55,191	38,007	18,987	7,519	2,813	1,053	209	54	20	3,438
25 - 29	222,920	34,448	34,110	41,106	40,740	32,306	19,850	9,185	3,984	1,665	1,753	3,773
30 - 34	153,368	9,870	10,574	14,637	19,222	23,366	24,551	20,332	13,804	7,354	6,340	3,258
35 - 39	105,147	3,700	3,520	5,003	7,215	9,769	12,367	13,554	14,534	12,485	20,588	2,412
40 - 44	35,812	870	714	901	1,223	1,571	2,484	3,251	4,216	4,936	14,690	956
45 & over	6,705	219	161	188	390	283	501	476	729	679	2,883	137
Not Stated	12,624	2,126	1,208	1,146	885	830	710	562	408	272	495	3,982
1966	823,342	204,361	115,121	105,263	92,629	77,563	64,119	50,796	38,523	27,784	26,327	20,842
Under - 15	276	164	-	-	-	-	-	-	-	-	-	112
15 - 19	59,800	45,202	10,164	2,485	561	161	46	-	-	-	-	181
20 - 24	209,468	86,764	53,245	37,731	19,316	7,563	2,802	1,104	427	168	105	2,43
25 - 29	230,037	43,333	34,803	41,892	41,765	32,198	19,511	9,657	3,983	1,608	906	381
30 - 34	160,362	14,799	11,143	15,545	20,673	24,619	25,415	20,787	13,948	7,512	5,584	577
35 - 39	108,408	6,683	3,684	5,321	7,633	10,015	12,669	14,850	14,644	12,702	12,513	7,434
40 - 44	37,009	1,867	744	991	1,314	1,949	2,518	3,350	4,236	4,817	6,086	2,237
45 & over	6,496	510	192	184	265	283	391	473	623	657	737	2,175
Not Stated	11,886	5,079	1,146	1,100	1,042	969	766	575	471	320	396	147

Table V.4 - LIVE BIRTHS BY ORDER OF BIRTH AND BY AGE OF MOTHER: 1965 - 1969 -continued

1967	840,302	212,571	126,073	97,981	96,476	80,956	60,421	48,027	44,855	26,714	31,384	14,844
Under - 15	230	178	-	-	-	-	-	-	-	-	-	52
15 - 19	73,624	51,618	17,128	3,519	539	267	-	-	-	-	-	553
20 - 24	204,427	91,864	56,616	29,179	16,879	6,199	1,738	662	273	148	134	735
25 - 29	230,432	43,027	34,703	41,325	48,085	30,218	18,013	8,460	3,597	1,392	1,162	450
30 - 34	164,775	14,603	11,199	15,723	20,524	31,554	24,477	19,966	13,248	7,242	5,336	863
35 - 39	112,480	6,180	3,608	5,187	7,363	9,774	12,484	14,446	22,385	12,058	14,586	4,409
40 - 44	35,675	1,733	737	939	1,335	1,726	2,499	3,325	4,055	4,625	9,002	5,699
45 & over	6,352	454	165	208	227	297	376	459	589	738	903	1,936
Not Stated	12,287	2,914	1,917	1,901	1,524	921	834	709	708	511	201	147
1968	898,570	215,437	134,267	114,893	97,616	79,972	66,316	52,434	39,711	27,950	47,216	18,158
Under - 15	266	201	12	-	-	-	-	-	-	-	-	53
15 - 19	65,342	51,172	11,094	2,182	432	119	29	-	-	-	-	314
20 - 24	232,779	39,290	61,776	39,338	18,418	6,742	2,531	1,005	402	146	132	2,993
25 - 29	245,982	45,655	40,712	46,203	43,525	31,899	18,985	8,498	3,609	1,434	1,181	4,281
30 - 34	175,386	13,626	13,447	18,416	23,414	26,360	26,914	21,818	13,979	7,358	6,245	3,009
35 - 39	117,869	4,842	4,474	6,019	8,809	11,376	14,344	16,195	16,047	12,325	20,055	2,783
40 - 44	40,378	1,150	959	1,158	1,591	2,162	2,874	3,799	4,614	4,998	16,067	1,006
45 & over	6,805	297	219	215	247	336	429	508	622	744	2,957	231
Not Stated	13,763	3,204	1,574	1,362	1,180	978	810	611	438	345	579	2,682
1969	946,753	252,507	145,617	120,763	101,340	83,461	68,783	54,203	41,387	29,503	47,180	2,009
Under - 15	295	206	19	-	-	-	-	-	-	-	-	60
15 - 19	72,011	56,034	12,719	2,439	507	132	36	-	-	-	-	144
20 - 24	250,260	109,445	67,954	41,858	19,440	7,225	2,554	978	328	131	50	297
25 - 29	255,621	51,478	43,124	47,890	45,226	33,352	19,278	8,918	3,616	1,521	957	261
30 - 34	181,949	18,510	14,551	19,471	24,168	27,311	27,576	21,921	14,460	7,552	6,046	383
35 - 39	124,000	7,654	4,642	6,370	9,059	11,979	15,148	17,297	16,941	13,934	20,687	289
40 - 44	41,736	2,227	939	1,215	1,612	2,239	3,063	3,906	4,906	5,233	15,964	430
45 & over	7,133	550	226	232	275	346	377	551	652	814	3,000	110
Not Stated	13,758	6,403	1,443	1,288	1,053	877	751	632	482	318	476	35

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Age of Parents

Age of parents is an important variable in any analysis of birth statistics. The distribution of live births by age of parents for 1965-1969 is given in Table V.5.

It is obvious from the data presented that the most number of births came from parents aged 25 to 29. This age group accounted for as much as 28 percent of total live births. For fathers in general, the second ranking number of births came from age group 30 to 34 followed by 35 to 39, then 15 to 19 while for mothers, ranking second and third respectively, were age group 20 to 24 and 30 to 34.

The average age of all mothers to whom a child was born in 1969 was 27.9 and of the fathers 30.5; in 1965, the average age for mothers and fathers were 28.1 and 30.5, respectively.



Table V.5—LIVE BIRTHS BY AGE OF PARENTS: 1965 - 1969

Age Group	1965		1966		1967		1968		1969	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother
	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent	Number, Percent
Total	795,415	200.0	795,415	200.0	823,342	200.0	840,302	200.0	898,570	200.0
Under 15 years	59	0/	308	.1	77	0/	276	0/	47	0/
15 - 20	10,805	1.3	54,165	6.8	9,728	1.2	50,800	7.2	9,706	1.2
20 - 24	123,691	15.6	220,993	25.2	125,012	15.2	209,468	25.4	136,173	16.2
25 - 29	288,512	36.2	282,611	38.0	216,699	26.3	230,037	27.9	220,401	26.1
30 - 34	172,781	21.7	153,768	19.3	182,798	22.2	160,968	19.6	178,727	21.3
35 - 39	135,373	17.0	105,899	13.3	140,046	17.0	108,408	13.2	142,306	16.9
40 - 44	70,187	8.8	36,617	4.6	73,435	8.9	37,009	4.5	80,553	9.6
45 & over	53,594	6.7	7,947	1.0	54,952	6.7	6,494	0.8	52,137	6.2
Not Stated	11,838	2.7	13,435	1.7	20,795	2.5	11,886	1.4	20,962	2.5
Average ages	28.6	28.0	30.5	27.9	30.5	28.1	30.6	28.0	30.5	27.9
Median ages	31.3	27.6	31.3	27.5	31.3	27.5	31.3	27.4	31.2	27.6

0/ less than 0.01 percent

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Nationality of Parents

The number of births by nationality of parents for 1965-1969 is shown in Table V.6. As could be expected, Filipino fathers and mothers dominated the scene with their percentages of total births of not less than 98 percent. All other nationalities, like Chinese, American, Spanish and others, accounted for less than one percent each of total births. Percentages of births from parents whose nationality was not stated ranged from 0.03 percent in 1969 to 1.45 percent in 1967.

Table V.6—LIVE BIRTHS BY NATIONALITY OF PARENTS: 1965 - 1969

Nationality of Parents	1965		1966		1967		1968		1969	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother
Total	795,415	795,415	823,342	823,342	840,302	840,302	898,570	898,570	946,753	946,753
Filipino	729,313	781,801	808,246	820,573	824,734	837,300	883,001	894,663	928,713	942,073
Chinese	1,187	1,809	1,848	1,556	1,708	1,500	1,500	1,602	1,598	2,730
American	597	1,110	1,297	687	1,471	846	1,493	817	1,939	1,380
Spanish	44	11	35	148	99	189	135	505	30	135
Others	104	106	113	97	89	120	96	87	132	150
Not Stated	1,170	10,578	11,803	281	12,201	347	12,279	896	14,341	285

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Legitimacy

In 1965, 2.79 percent of total births were illegitimate as shown in the Table V.7. This declined to 2.63 percent the following year, further declined to 2.48 percent in 1967, increased to 2.86 percent in 1968 and finally to 3.22 percent in 1969. Although recently the percentage of illegitimacy has shown an increasing trend, this is still very low compared with that of many countries of the world.

The median age of unmarried mothers who bore a live-born child in 1969 was 25.0 that is, half of the mothers of the 30,418 "illegitimate" children delivered in 1969 were under 25.0 years of age.

Table V.7 - LIVE BIRTHS BY LEGITIMACY AND BY AGE OF MOTHER: 1965 - 1969

Age of mother	L E G I T I M A C Y															
	1965				1966				Not Stated		1967				Not Stated	
	Legitimate		Illegitimate		Legitimate		Illegitimate				Legitimate		Illegitimate			
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Totals, All Ages	773,192	97.21	22,223	2.79	801,479	97.35	21,700	2.63	163	.02	819,000	97.47	20,850	2.48	452	.05
Under - 15	377	.04	36	.01	213	.03	99	.01	4	#/	172	.02	41	.01	17	#/
15 - 19	52,493	6.60	3,037	.38	55,660	6.76	3,126	.38	14	#/	70,562	8.40	3,035	.36	27	#/
20 - 24	195,980	24.64	6,936	.87	202,833	24.64	6,993	.88	42	.01	197,697	23.83	6,613	.79	117	.02
25 - 29	217,434	27.34	5,466	.69	224,795	27.30	5,208	.63	34	.01	225,376	26.82	4,977	.59	99	.02
30 - 34	149,938	18.85	3,430	.43	157,618	19.14	3,313	.40	21	#/	161,697	19.24	3,025	.36	73	.01
35 - 39	103,125	12.97	2,822	.35	106,276	12.91	2,112	.26	20	#/	110,495	13.25	1,930	.23	55	.01
40 - 44	35,110	4.41	712	.09	36,330	4.41	673	.08	6	#/	35,033	4.17	622	.07	20	#/
45 & over	6,522	.82	173	.02	6,310	.77	181	.02	5	#/	6,213	.74	124	.01	15	#/
Not Stated	12,213	1.54	411	.05	11,444	1.39	435	.05	7	#/	11,755	1.40	503	.06	29	#/
Average Ages - yrs.		28.2		26.3		28.2		26.4	-	-		28.1		26.1	-	-
Median Ages - yrs.		27.5		25.3		27.5		25.3	-	-		27.5		25.0	-	-

Age of mother	L E G I T I M A C Y											
	1968					1969					Not Stated	
	Legitimate		Illegitimate		Legitimate		Illegitimate					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Totals, All Ages	872,937	97.14	25,633	2.86	916,333	96.78	30,418	3.22	2	#/		
Under - 15	224	.02	42	#/	235	.02	30	.01	-	-		
15 - 19	61,553	6.85	3,789	.42	67,492	7.13	4,519	.48	-	-		
20 - 24	224,549	24.99	8,230	.92	240,478	25.40	9,782	1.03	-	#/		
25 - 29	240,133	26.72	5,849	.65	248,597	26.25	7,083	.75	1	#/		
30 - 34	171,483	19.09	3,893	.43	177,441	18.74	4,597	.48	1	#/		
35 - 39	115,395	12.84	2,474	.28	121,101	12.79	2,899	.31	-	-		
40 - 44	39,793	4.41	785	.09	40,772	4.31	964	.10	-	-		
45 & over	6,658	.74	147	.02	6,949	.73	184	.02	-	-		
Not Stated	13,339	1.48	424	.05	13,328	1.41	430	.04	-	-		
Average Ages - yrs.		28.1		26.1		28.2		26.2	-	-		
Median Ages - yrs.		27.5		25.0		27.5		25.0	-	-		

#/ Less than .01 percent.

Source: Demography and Vital Statistics Division.

## Fertility Rates

The sex and age composition of a population is an important factor in determining crude birth, marriage and death rates. Since almost all children born each year are to women between the ages 15-44, variations in the proportion of women of those ages to total population will cause variations in the crude birth rate of different countries — or of different regions within a country — even though the actual rates of reproduction or of fertility of the women in these age groups in each country or region are identical.

A more accurate measure of the fertility of a population would be one based on the number of women of reproductive age, that is those able to bear children, and a still more accurate measure would be one based on the number within this group that are married, that is, those eligible, as it were, to bear children. The two types are compared in Table V.8 which indicates the variation in each type over the years 1961-1969. The rates shown are crude in the sense that they do not take into account differences in fertility in the component age periods within the female reproductive life-span, nor the proportions of married women in each age period.

The number of infants born in relation to every 1,000 women in the population, ages 15-44, has increased from 112.9 in 1960 to 126.5 in 1969. The rates in the intervening years ranged from 112.8 to 130.7. Likewise, the average annual number of infants born to every 1,000 married women in the country, as a whole, went up from 184.5 to 195.9 during the same period. The highest rate of 211.2 for this type was registered in 1962.

**Table V.8—GENERAL FERTILITY RATES: 1960-1969**

Year	: Number of : Women : Aged 15-44 : (000)	: Number of : Married Women : Aged 15-44 : (000)	: Rates per : 1,000 : Women : Aged 15-44	: Rates per : 1,000 : Married Women : Aged 15-44
1960	5,569	3,407	112.9	184.5
1961	5,745	3,535	112.8	183.3
1962	5,929	3,671	130.7	211.2
1963	6,120	3,812	128.5	206.4
1964	6,321	3,960	127.0	202.7
1965	6,533	4,118	121.8	193.2
1966	6,755	4,283	121.9	192.2
1967	6,989	4,458	120.2	188.5
1968	7,231	4,640	124.3	193.4
1969	7,486	4,832	126.5	195.9

**Sources:** Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## DEATHS

A summary of death statistics by region for the year 1958-1969 is found in Table V.1a at the beginning of the chapter. General mortality rates fluctuated between 6.6 and 7.5 per thousand population, while infant mortality rates vacillated between 109.2 and 58.6 per thousand live births. Foetal deaths, on the other hand, showed a general increase in number from 5,029 in 1958 to as high as 14,454 in 1965. A more detailed coverage of the above topics will be discussed shortly.

### Age and Sex Distribution of Deaths

The period 1960 to 1969 has shown a general decrease in mortality rates. Of major significance in lowering the over-all death rates were the reduction in infant mortality and in childhood death rates. In 1960, about 48 percent of all male deaths occurred during the first five years of life; in 1969, 42 percent took place in this age group. Among females in the same age group the proportions dropped from 44 percent in 1960 to 42 percent in 1969. (See Table V.10)

Table V.9 shows the percentage change in death rates from 1960-1969 in each age group of the population. The greatest reduction so far have occurred among the first five years of both sexes. However, although the rates for females at every age have always been consistently lower than those for males, female death rates have been declining faster and the difference are gradually widening. Between 1960 and 1969 the rates for all females dropped by 12.33 percent as compared with only 3.31 percent for males.

**Table V.9—PERCENTAGE CHANGE IN DEATH RATES FOR EACH AGE GROUP: 1960-1969**

Age Group	Male	Female
All Ages.	-3.31	-12.33
Under 1 year	-16.17	-20.26
1 - 4	-21.51	-24.61
5 - 9	3.96	2.53
10 - 14	10.71	5.00
15 - 19	7.53	-11.61
20 - 24	7.14	-21.74
25 - 29	11.83	-18.80
30 - 34	13.23	-18.52
35 - 39	18.16	-11.06
40 - 44	19.11	- 2.24
45 - 49	5.86	- 7.50
50 - 54	10.46	- 8.53
55 - 59	20.09	-13.12
60 - 64	0.97	- 7.21
65 - 69	55.85	23.81
70 and over	18.99	12.25

Sources: Bureau of the Census and Statistics, Demography and Vital Statistics Division, and Central Research Division.

Despite the considerable reduction that has taken place in infant mortality, more deaths still occur in the first year of life than any other single year. Of the total deaths occurring in 1960, approximately 48 percent were of children under five years and more than three-fifths of those were of children under one year of age; of the deaths occurring in 1969 about 42 percent were of children under five years and of those about 63 percent were under one year. (See Table 10)

The reduction in the mortality rates in early and middle years of life have had the effect of increasing the number of people surviving in the older age group and raising the average age at death. In 1960, the average age at death of males was 26.9 years and of females 30.1 years; by 1969 this had advanced to 28.9 years and 31.5 years, respectively. On the other hand, the median age increased during the same period from 6.8 to 15.9 for males and from 14.0 to 18.8 for females. This means that half of all the population who died in 1969 were relatively very young, having barely reached the age of 16 for males and 19 for females. From 1960 to 1969 the gains in median age were 9.1 for males and 4.8 for females.

Table 7.10.—DISTRIBUTION OF DEATHS BY AGE AND SEX 1960, 1965 AND 1969

Age Group	1960		1965		1969	
	Male	Female	Male	Female	Male	Female
<b>Philippines</b>	104,439	88,204	128,714	106,221	136,629	104,849
<b>Under</b>	30,887	22,788	33,546	24,442	37,266	26,453
1 - 4 years	18,801	16,298	24,174	21,576	20,592	17,415
5 - 9 "	4,324	3,228	6,283	4,908	6,036	4,532
10 - 14 "	1,987	1,570	2,437	1,789	2,911	1,894
15 - 19 "	2,087	1,567	2,481	1,573	3,138	1,927
20 - 24 "	2,623	2,130	3,218	2,071	3,912	2,280
25 - 29 "	2,694	2,247	3,474	2,468	4,112	2,457
30 - 34 "	2,602	2,361	3,303	2,409	3,953	2,580
35 - 39 "	2,716	2,687	3,554	2,910	4,192	3,102
40 - 44 "	2,728	2,331	3,349	2,699	4,078	2,864
45 - 49 "	3,384	2,673	4,049	3,037	4,504	3,104
50 - 54 "	3,180	2,475	4,249	3,085	4,720	3,056
55 - 59 "	3,191	2,811	4,074	3,001	5,502	3,552
60 - 64 "	3,632	2,848	4,933	3,794	5,173	3,832
65 - 69 "	2,676	2,403	4,105	3,245	4,314	3,184
70 - 74 "	3,660	3,454	4,070	3,836	4,237	3,674
75 - 79 "	2,946	4,601	3,902	3,424	3,871	3,227
80 and over	9,292	10,940	12,558	15,243	11,753	13,572
Not stated	1,049	972	935	665	1,386	974
P E R C E N T A G E S						
<b>Philippines</b>	100.00	100.00	100.00	100.00	100.00	100.00
<b>Under</b>	29.58	25.34	26.06	23.01	27.24	25.23
1 - 4 years	18.00	18.48	18.78	20.31	15.05	16.61
5 - 9 "	4.14	3.68	4.88	4.62	4.41	4.32
10 - 14 "	1.98	1.55	1.91	1.68	2.13	1.91
15 - 19 "	2.00	1.78	1.93	1.48	2.31	1.84
20 - 24 "	2.51	2.41	2.50	1.95	2.86	2.18
25 - 29 "	2.58	2.55	2.70	2.32	3.00	2.34
30 - 34 "	2.49	2.68	2.57	2.27	2.89	2.46
35 - 39 "	2.60	3.05	2.76	2.74	3.05	2.76
40 - 44 "	2.61	2.64	2.60	2.54	2.98	2.73
45 - 49 "	3.24	3.03	3.15	2.96	3.29	2.96
50 - 54 "	3.05	2.80	3.30	2.91	3.45	2.92
55 - 59 "	3.06	3.19	3.17	2.83	4.02	3.39
60 - 64 "	3.48	3.23	3.83	3.57	3.78	3.67
65 - 69 "	2.96	2.72	3.19	3.25	4.22	4.13
70 - 74 "	3.50	3.92	3.16	3.66	3.10	3.50
75 - 79 "	2.82	2.95	3.03	3.22	2.61	3.08
80 and over	9.90	13.50	10.48	14.98	9.50	13.97
DEATH RATES PER 1,000 POPULATION						
<b>Philippines</b>	7.55	6.49	7.89	6.63	7.30	5.69
<b>Under</b>	55.85	43.08	47.52	35.32	46.82	34.35
1 - 4 years	9.30	8.41	10.01	9.20	7.30	6.34
5 - 9 "	2.02	1.58	2.56	2.08	2.10	1.62
10 - 14 "	1.12	0.80	1.17	0.88	1.24	0.84
15 - 19 "	1.46	1.12	1.43	0.94	1.57	0.99
20 - 24 "	2.24	1.84	2.30	1.51	2.40	1.44
25 - 29 "	2.79	2.34	3.04	2.19	3.12	1.90
30 - 34 "	3.25	2.97	3.32	2.58	3.68	2.42
35 - 39 "	4.02	3.98	4.59	3.77	4.75	3.54
40 - 44 "	4.71	4.02	5.15	4.24	5.61	3.92
45 - 49 "	6.99	5.47	7.32	5.40	7.40	6.28
50 - 54 "	8.41	6.45	9.40	6.45	9.29	5.90
55 - 59 "	11.40	9.76	11.44	8.38	13.69	8.48
60 - 64 "	17.55	13.31	19.97	14.54	17.72	12.35
65 - 69 "	18.71	18.13	24.15	17.61	29.16	12.35
70 and over	67.65	65.37	90.84	88.44	80.50	73.38
<b>Median age at death</b>	6.8	14.0	9.4	14.7	15.9	18.8
<b>Average age at death</b>	26.9	30.1	28.3	31.3	28.9	31.5

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Leading Causes of Deaths

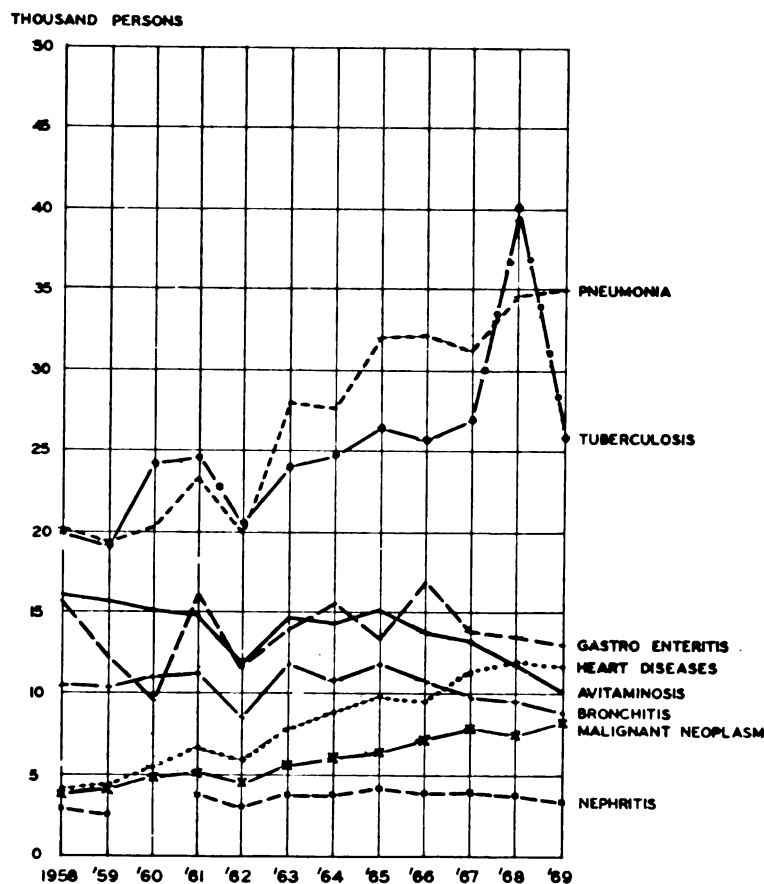
The important disease problems accounting for the most number of deaths and illness of the population are mainly communicable in nature. These are pneumonia, tuberculosis, gastro-enteritis and bronchitis. While some of these diseases have shown decreasing tendencies, they still remain the major disease problems. As a matter of fact, for the past twelve years (See Fig. V.3) pneumonia had always been the leading cause of death in the country, with respiratory tuberculosis ranking second. Avitaminosis, a disease which is nutritional in nature, is also among the leading cause of death.

Other diseases which have increased their tolls significantly are those of the chronic degenerative type which include diseases of the heart, malignant neoplasm, nephritis and nephroses. Because of the increasing tendencies shown by this type of disease, it is felt that at present, the Philippine population is at the threshold of an impending shift in disease pattern from the communicable to the degenerative.

For the year 1968, the eight leading causes of deaths accounted for 138,807 or 53 percent of total mortality although this number went down to 119,542 or 49 percent of all deaths in 1969.

FIGURE V. 3

### MAIN CAUSES OF DEATH : 1958 - 1969



SOURCE : VITAL STATISTICS REPORTS : 1958 - 1969

## DEATHS

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Table V.11 - DEATHS BY PROVINCE AND BY TYPE OF ATTENDANCE: 1967 - 1969

Province	Total	1967			Total	1968			Total	1969		
		Type of Attendance				Type of Attendance				Type of Attendance		
		Attended	Examined	Simply reported		Attended	Examined	Simply reported		Attended	Examined	Simply reported
Philippines	240,122	57,542	160,444	22,136	261,893	70,648	166,128	25,117	241,678	65,730	151,357	24,521
Province	180,336	26,553	133,284	19,739	195,478	34,222	133,509	21,747	178,645	32,160	124,805	21,680
City	59,786	30,989	26,460	2,337	66,415	36,426	26,619	3,370	63,033	33,570	26,552	2,911
Abra	722	92	415	215	822	104	372	346	796	129	375	292
Agusan del Norte	2,628	614	1,922	92	2,151	718	1,396	37	2,177	739	1,430	8
Agusan del Sur					566	63	413	90	604	118	410	76
Aklan	1,952	177	1,678	97	2,417	312	1,996	109	1,785	226	1,442	117
Albay	5,635	569	4,924	142	6,029	946	4,828	255	5,197	770	3,358	469
Antique	1,917	132	1,574	211	2,612	208	1,713	691	2,366	241	1,724	401
Bataan	1,532	336	1,192	4	1,654	380	1,270	4	1,531	403	1,121	7
Batanes	69	10	55	4	104	11	91	2	95	35	52	8
Batangas	6,382	1,045	4,859	478	7,053	1,456	4,833	764	5,950	1,467	3,981	502
Benguet					1,211	657	493	61	1,196	621	448	117
Bohol	4,868	211	2,243	2,414	6,859	651	3,125	3,083	6,345	511	3,402	2,432
Bukidnon	755	234	511	10	1,079	251	663	165	1,049	272	605	172
Bulacan	5,739	1,539	4,081	119	5,879	1,930	3,913	136	5,436	1,638	3,707	151
Cagayan	5,434	629	3,544	1,321	5,334	805	3,535	1,054	5,526	748	3,188	1,590
Camarinas Norte	2,098	366	1,717	15	1,977	538	1,431	8	2,075	556	1,505	14
Camarinas Sur	6,627	1,010	4,144	1,473	7,293	1,007	4,800	1,468	6,233	931	3,981	1,321
Camiguin					573	50	363	160	458	67	288	103
Capiz	2,537	431	1,533	573	2,960	522	1,972	466	3,125	543	2,105	477
Catanduanes	1,495	156	1,320	9	1,524	242	1,260	22	1,174	237	898	39
Cavite	3,576	337	2,299	340	3,731	1,080	2,369	282	3,262	1,074	2,036	172
Cebu	15,790	3,110	11,645	1,035	17,687	3,778	12,606	1,303	15,649	2,372	11,334	1,543
Cotabato	3,931	612	3,255	174	2,747	399	2,324	34	2,837	509	2,222	106
Cotabato, South					1,726	282	1,437	7	1,710	450	1,250	10
Davao del Norte	6,257	1,785	3,466	1,006	1,774	348	1,180	246	1,873	452	1,142	279
Davao del Sur					3,739	1,437	1,551	751	4,195	1,520	1,923	752
Davao Oriental					1,175	271	643	261	1,040	232	619	189
Davao					179	45	47	87	151	50	50	51
Ilocos Norte	3,298	847	2,253	198	3,117	517	2,385	215	2,594	415	2,065	114
Ilocos Sur	3,050	292	2,021	747	3,060	332	1,811	917	2,852	418	1,734	700
Iloilo	7,554	1,742	5,645	167	8,573	1,979	6,470	224	7,666	1,721	5,783	162
Isabela	5,119	298	3,966	855	5,727	610	4,315	802	4,983	493	3,637	853
Kalinga-Apayao					454	31	98	335	497	63	154	280
Laguna	3,265	442	2,602	221	3,315	604	2,523	188	3,018	589	2,232	197
Marikina	4,306	1,320	2,726	260	5,247	2,253	3,047	247	4,843	1,921	2,759	169
Marikina del Norte	1,587	375	1,169	43	1,399	465	1,475	59	1,701	446	1,205	50
Marikina del Sur	152	80	69	3	239	133	102	4	172	118	51	3
Mayaguez	11,345	1,137	9,352	556	11,675	1,230	9,918	527	10,468	1,150	8,798	520
Leyte, Southern	1,574	129	1,336	109	1,741	167	1,415	159	1,643	131	1,387	131
Marikina	1,244	121	925	139	1,599	116	1,243	150	1,131	171	640	320
Misamis	1,686	329	1,313	44	1,958	382	1,353	113	1,923	337	1,435	91
Misamis Occidental	2,289	286	1,395	608	2,991	337	1,407	847	2,147	423	1,201	523
Misamis Oriental	4,251	908	2,535	858	3,550	393	2,462	505	3,705	692	2,557	456
Mt. Province	1,841	737	638	466	270	66	165	39	275	78	169	28
Negros Occidental	9,761	2,182	7,406	176	11,601	2,855	6,482	264	10,019	2,860	6,964	195
Negros Oriental	3,644	553	2,603	488	4,836	323	3,074	769	4,395	801	2,746	848
Nueva Ecija	6,079	837	5,193	49	5,940	1,108	4,539	193	5,175	1,280	3,682	213
Nueva Vizcaya	1,343	141	554	648	1,726	171	529	536	1,440	199	430	811
Occidental Mindoro	546	183	350	13	657	141	497	19	625	145	445	35
Oriental Mindoro	2,169	433	1,661	75	2,263	632	1,570	61	2,048	584	1,363	101
Palawan	820	348	384	88	737	406	426	105	842	344	376	122
Pampanga	5,847	1,558	3,078	851	5,699	1,372	3,109	718	5,131	1,646	2,799	686
Pangasinan	12,896	1,475	8,582	2,839	12,475	1,711	8,487	2,277	11,314	1,572	7,481	2,261
Quezon	7,474	1,700	5,669	105	8,246	2,768	5,329	149	8,272	2,684	5,339	249
Rizal	16,281	8,370	7,879	32	18,268	10,526	7,415	327	16,829	9,172	7,340	317
Romblon	1,213	166	1,032	15	1,159	207	943	9	952	145	776	31
Samar, Eastern					789	63	572	154	935	147	611	177
Samar, Northern	4,657	472	3,815	370	1,748	71	1,536	141	2,617	72	1,524	1,021
Samar, Western					2,055	337	1,448	270	1,468	316	1,067	85
Sorsogon	3,269	445	2,571	253	3,770	802	2,634	284	3,204	544	2,462	198
Sulu	284	66	161	57	249	83	103	63	172	80	90	2
Surigao del Norte	1,399	226	1,029	144	1,350	370	814	166	1,490	273	1,085	122
Surigao del Sur	1,804	284	1,389	131	2,016	563	1,287	136	1,869	257	1,466	166
Tarlac	4,750	939	3,727	84	4,346	1,001	3,307	38	4,024	881	3,076	67
Zamboales	1,821	422	1,366	33	2,108	325	1,158	15	2,000	950	1,017	33
Zamboanga del Norte	1,725	264	1,414	47	2,010	269	1,709	32	1,962	382	1,523	57
Zamboanga del Sur	3,722	1,072	2,482	168	4,385	1,193	2,903	289	4,456	1,256	2,873	327
Manila	16,060	11,978	3,727	455	17,220	13,085	3,384	751	16,894	12,463	3,759	672

<sup>a/</sup> Includes Agusan del Sur.<sup>b/</sup> Includes South Cotabato.<sup>c/</sup> Includes Davao del Sur and Oriental.<sup>d/</sup> Includes Benguet, Kalinga-Apayao and Ifugao.<sup>e/</sup> Includes Eastern and Western Samar.

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.



## Deaths by Province and by Type of Attendance

Information to this effect is shown in Table V.11. Death by type of attendance are of three categories namely: medically attended to if the deceased was attended to by a physician during his illness and the date of attendance has been specified in the certificate; examined when death was reported by a physician, public health officer, nurse, midwife or sanitary inspector but no date of attendance is given; and simply reported when the first two conditions have been satisfied.

The number of deaths occurring in the province has been fairly constant throughout the years at about three-fourths of total deaths with the rest occurring in the cities. For the country, as a whole, deaths by type of attendance showed that in 1967 about 24 percent were attended to, 67 percent were examined and 9 percent were simply reported. In 1969, death as attended and simply reported increased to 27 percent and 10 percent, respectively, whereas, deaths as examined declined to 63 percent. Further examination of the data would reveal that deaths on the national and provincial levels followed the same pattern of attendance with more deaths reported as examined while the cities reported more deaths as attended.

## INFANT MORTALITY

Table V. 1a shows the notable improvement that has taken place in the rate of infant mortality during the past twelve years. Although 63,719 of the 946,753 children born in 1969 died before reaching their first birthday, 39,676 others lived who would have died at the infant mortality rate prevailing in 1958. This improvement may be attributed to several factors such as higher percentage of births with proper medical attendance, improved sanitation, use of antibiotics and in recent years the generally lower age of mothers.

Table V. 12 illustrates the mortality rates among male and female infants by region. For the country, as a whole out of every 1,000 males born alive in 1968, 79 died before reaching their first birthday, whereas out of every 1,000 females born alive 62 died within one year. As stated earlier, there are on the average 1,095 males born to every 1,000 females, but because male infant mortality is higher, the excess of males is reduced greatly by the end of the first year. For instance, in 1965 to 1968, there were 1,754,484 male infants born compared to 1,603,145 females, an excess of 151,339 or 8.62 percent; in the same period, 140,667 male children died during their first year compared to 101,094 female children, so that the excess of males at one year of age was reduced to 111,766 or 6.92 percent.

## Causes of Infant Deaths

In 1966, more than four-fifths of all infant deaths were caused by tetanus, beri-beri, pneumonia of all forms, bronchitis, diseases of the intestines and ulceration, pneumonia of new born, ill-defined diseases peculiar to early infancy, immaturity unqualified, and postnatal asphyxia and atelectasis. While mortality rates from all of these diseases have decreased in the subsequent years they still remain to be the foremost causes of infant deaths as shown in Table V. 13. In 1968, out of the total infant mortality of 63,786, pneumonia of all forms, accounted for 11,549 fatalities, ill-defined diseases peculiar to early infancy for 8,975, immaturity unqualified for 6,894, beri-beri for 4,839 diseases of the intestines and ulceration for 4,706, bronchitis for 4,043, post-natal asphyxia and atelectasis for 2,436.

# INFANT MORTALITY

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Table V.13—DISTRIBUTION OF INFANT DEATHS BY REGION AND SEX: 1965-1968

Region and year	Males	Females	Rate per 1,000 Female Live Births	
			Male	Female
Philippines .....	1965 37,516	24,442	87.4	64.6
	1966 34,506	24,780	79.3	63.2
	1967 35,507	25,196	81.6	62.0
	1968 37,110	25,576	70.5	62.5
Manila .....	1965 2,602	1,869	57.1	45.1
	1966 3,022	2,134	60.1	53.5
	1967 3,021	2,288	70.1	57.5
	1968 3,106	2,216	67.0	52.5
Iloilo and Mt. Province .....	1965 1,370	1,004	67.9	55.6
	1966 1,383	1,035	79.1	49.2
	1967 1,532	1,069	69.5	45.8
	1968 1,456	1,036	57.4	45.7
Cagayan Valley .....	1965 2,021	1,514	102.1	87.1
	1966 1,798	1,568	92.1	75.8
	1967 1,923	1,302	95.5	72.9
	1968 1,512	1,544	79.5	75.6
Central Luzon .....	1965 5,244	3,811	81.1	65.0
	1966 5,329	3,823	72.0	56.3
	1967 5,421	3,734	74.0	61.1
	1968 5,588	4,037	71.2	56.2
Southern Luzon and Island .....	1965 6,200	4,964	102.3	81.1
	1966 6,593	4,951	76.5	57.5
	1967 6,527	4,808	75.1	56.4
	1968 7,254	5,099	76.1	58.3
Rizal and Marikina .....	1965 2,545	1,961	83.8	71.9
	1966 2,653	1,955	75.6	62.3
	1967 2,726	1,853	76.2	58.5
	1968 2,690	2,009	76.4	64.4
Western Visayas .....	1965 2,965	2,113	118.0	118.3
	1966 3,171	2,290	118.0	92.4
	1967 3,249	2,287	115.7	84.7
	1968 3,472	2,521	118.7	90.5
Eastern Visayas .....	1965 5,699	4,041	133.1	103.9
	1966 5,535	4,043	94.4	77.2
	1967 5,399	3,916	70.3	70.3
	1968 5,910	4,053	92.6	70.8
Northern Mindanao .....	1965 2,435	1,734	106.2	74.6
	1966 2,679	1,826	100.4	75.5
	1967 2,569	1,954	97.9	79.5
	1968 2,799	2,056	94.2	79.3
Southern Mindanao and Sulu .....	1965 2,463	1,831	92.5	77.9
	1966 2,139	1,607	60.3	50.5
	1967 2,538	1,805	67.4	47.2
	1968 2,823	2,065	64.3	52.3

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

Table V.13 - INFANT MORTALITY AND RATES PER 100,000 LIVE BIRTHS, BY CAUSE: 1964-1968

International List Number	Cause of Death	Number of Deaths			Rates Per 100,000 Live Births		
		1964	1967	1968	1964	1967	1968
	Total, All Causes	22,294	60,703	61,786	7,200	7,224	7,092
001 - 019	Tuberculosis	335	341	358	41	41	40
045 - 048	Dysentery	97	97	132	12	12	15
055	Diphtheria	109	121	170	13	14	19
056	Whooping cough	96	49	48	12	6	5
057	Meningococcal infection	7	5	7	1	1	1
061	Tetanus	2,386	2,594	2,544	290	285	261
080	Acute poliomyelitis	49	53	44	6	6	5
085	Measles	498	630	610	60	75	68
281 - 280	Beri-beri	5,471	5,111	4,859	664	608	558
281 - 289	Other avitaminosis and metabolic diseases	9	18	5	1	2	1
330 - 398	Diseases of the nervous system and sense organs	778	817	1,023	94	97	114
470 - 475	Acute upper respiratory infections	43	52	42	5	4	5
480 - 485	Influenza	510	357	387	58	42	45
490 - 495	Pneumonia, all forms	9,314	10,518	11,549	1,204	1,228	1,285
500 - 502	Bronchitis	4,738	4,189	4,245	515	490	450
510 - 527	Other diseases of the respiratory system	59	27	57	7	3	6
540 - 561	Peritonitis of the abdominal cavity	28	13	13	3	2	2
571 - 572	Disease of the intestines and ulceration	5,036	4,819	4,706	612	576	524
573 - 578	Other diseases of the intestines	56	47	68	7	6	8
760	Interoesophageal and spinal injury at birth	56	59	50	7	7	6
761	Other birth injury	540	895	628	66	106	70
762	Postnatal asphyxia and asphyxia	2,731	2,517	2,456	278	276	271
763	Pneumonia of newborn	3,563	4,143	4,635	481	493	516
764	Diarrhea of newborn	501	860	504	61	102	56
767	Umbilical sepsis	148	135	227	18	16	25
768	Other sepsis of newborn	460	590	647	56	70	77
769	Neonatal disorders arising from external toxemia	10	6	4	1	1	1
770	Hemolytic diseases of newborn	157	150	131	19	18	15
772	Nutritional maladjustment	1,778	1,364	1,521	240	246	214
773	Ill-defined diseases peculiar to early infancy	3,052	8,249	4,575	378	982	599
774	Immaturity with mention of any other subsidiary conditions	15	25	22	2	3	2
771	Hemorrhagic disease of newborn	116	100	167	14	12	18
775	Immaturity subsidiary to some causes	23	4	5	3	1	1
776	Immaturity unqualified	5,863	6,548	6,894	742	755	767
780.2	Convulsions	267	263	249	32	32	28
790	Monstrosity	37	28	23	4	3	2
791	Spina bifida meningocoele	10	5	8	1	1	1
792	Congenital hydrocephalus	21	14	46	3	2	5
793	Other congenital malformations of nervous system and sense organs	1	2	4	0	0	0
794	Congenital malformation of circulatory system	558	535	665	68	124	74
795	Cleft palate and harelip	13	23	17	2	3	2
796	Congenital malformation of digestive system	98	58	114	12	7	13
797	Congenital malformation of genitourinary system	4	2	8	1	0	1
798	Congenital malformation of bone and joints	7	3	2	1	0	0
799	Other unspecified congenital malformation not elsewhere classified	317	310	452	38	37	50
	Accidents	175	163	175	21	19	19
	All others	4,081	5,914	4,547	496	466	484
800	Lack of care of infants under 1 year of age	3					

0/ Less than 1

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

### Age at Death

Of the 63,786 infants who died in 1968, 32,136 or fifty percent were less than one month old — 9,970 during the first day of life, 12,866 from the second to the seventh day, and 9,300 during the three following weeks.

Table V.14.—INFANT DEATHS, BY AGE: 1968

Time of Death	Number	Percentage	Cumulative	
			Number	Percentage
1st day	9,970	15.63	9,970	15.63
2nd day	3,611	5.66	13,581	21.29
3rd day	2,283	3.58	15,864	24.87
4th day	2,134	3.35	17,998	28.22
5th day	1,533	2.40	19,531	30.62
6th day	1,629	2.55	21,160	33.17
7th day	1,676	2.63	22,836	35.80
1st week	22,836	35.80	22,836	35.80
2nd week	5,510	8.64	28,346	44.44
3rd week	2,381	3.73	30,727	48.17
4th week	1,409	2.21	32,136	50.38
1st month	32,136	50.38	32,136	50.38
2nd month	4,814	7.55	36,950	57.93
3rd month	3,140	4.92	40,090	62.85
4th month	2,819	4.42	42,909	67.27
5th month	2,562	4.02	45,461	71.29
6th month	2,744	4.30	48,215	75.59
7th month	2,683	4.21	50,898	79.80
8th month	2,825	4.43	53,723	84.23
9th month	2,958	4.64	56,681	88.87
10th month	2,757	4.32	59,438	93.19
11th month	2,139	3.35	61,577	96.54
12th month	2,209	3.46	63,786	100.00

Sources: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Neonatal Mortality

Deaths occurring within the first four weeks of birth are conventionally referred to as neonatal deaths. The table above shows that fifty percent of all infant deaths occur during the neonatal period and these are caused mainly by ill-defined causes peculiar to early infancy, immaturity unqualified, and pneumonia of new born.

## FOETAL DEATHS

Foetal deaths are deaths prior to the complete expulsion or extraction from its mother of the product of conception, irrespective of the duration of pregnancy. The death is indicated by the fact that after such separation, the foetus does not breath or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles.

Of the causes of foetal deaths shown in Table V.15, disease of the foetus and ill-defined cause accounted for almost seventy-five percent of all foetal deaths. This is followed by difficulties in labor, placental and cord conditions, chronic disease in mother, disease and condition of pregnancy and childbirth, congenital malformation of foetus, other cause in mother, acute disease in mother, birth injury, and absorption of toxic substances from mother.

TABLE V.15 - CAUSES OF FOETAL DEATHS: 1958 - 1969

Cause of Death	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
<b>TOTAL</b>	<b>5,029</b>	<b>8,930</b>	<b>9,946</b>	<b>11,007</b>	<b>11,480</b>	<b>12,045</b>	<b>11,389</b>	<b>14,454</b>	<b>12,125</b>	<b>12,315</b>	<b>12,835</b>	<b>11,486</b>
1. Disease of the foetus and ill-defined cause	3,684	6,655	7,121	7,939	8,309	9,089	8,090	11,297	9,163	8,796	9,082	8,518
2. Difficulties in labor	459	712	800	879	864	850	899	740	579	655	669	662
3. Placental and cord conditions	329	660	796	898	929	853	989	1,126	1,216	1,545	1,729	1,277
4. Chronic disease in mother	215	399	408	449	574	389	402	292	290	166	161	136
5. Disease and conditions of pregnancy and child birth	108	175	295	295	413	414	410	473	324	481	504	420
6. Congenital malformation of foetus	42	149	247	252	271	149	260	176	133	175	179	151
7. Other cause in mother	98	123	139	197	128	107	127	88	60	64	70	54
8. Acute disease in mother	69	53	97	93	87	137	123	235	169	322	396	237
9. Birth injury	19	63	62	83	102	56	85	58	98	127	46	33
10. Absorption of toxic substances from mother	6	1	1	2	1	1	4	9	93	14	39	8

Sources: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## MATERNAL MORTALITY

As indicated in Table V.1a the number of mothers who die as a result of pregnancy or childbirth has changed insignificantly during the past twelve years. In 1969, maternal mortality is still within the two thousandth mark as it was twelve years before. The period from 1962 to 1968 however, was marked by relatively lower number of mortalities ranging from 1,979 to 1,757.

On the other hand, a glance at the maternal mortality rates would reveal that a significant improvement was achieved in the maternal segment of the population since there was a reduction in rate from 46.1 per 10,000 live births in 1958 to more than half as much or 21.6 in 1969. Nevertheless, this recent improvement can not yet compare favorably with those of other countries (see Table V.24) notably Sweden's 1.4, Norway's 1.8, New Zealand's 2.2, and England's 2.6.

## Cause of Maternal Death

Table V.16, shows the cause of maternal deaths for the years 1960, 1965 and 1969.

**Table V.16—MATERNAL MORTALITY AND RATES PER 100,000 LIVE BIRTHS  
BY CAUSE: 1960, 1965 AND 1969**

International List Number	Cause of Death	Number of Deaths			Rates per 1,000 Live Births		
		1960	1965	1969	1960	1965	1969
	Total	<u>1,981</u>	<u>1,757</u>	<u>2,047</u>	<u>315.2</u>	<u>220.9</u>	<u>216.2</u>
640 - 641 680 - 682	Sepsis of pregnancy, childbirth and puerperium	137	143	96	21.8	18.0	19.1
642 - 652 685 - 686	Toxaemias of preg- nancy, and puer- perium	318	200	208	50.6	25.1	22.0
643 - 633 670 - 672.	Haemorrhage of preg- nancy, childbirth puerperium	1,139	950	1,244	181.2	119.4	131.4
650 - 651	Abortions	77	106	130	12.3	13.3	13.7
645 - 649 673 - 678 683 - 684 678 - 689	Other complications of pregnancy, child- births and puer- perium	310	338	341	49.3	42.5	36.0
660	Delivery without mention of complication	-	20	28	-	2.5	3.0

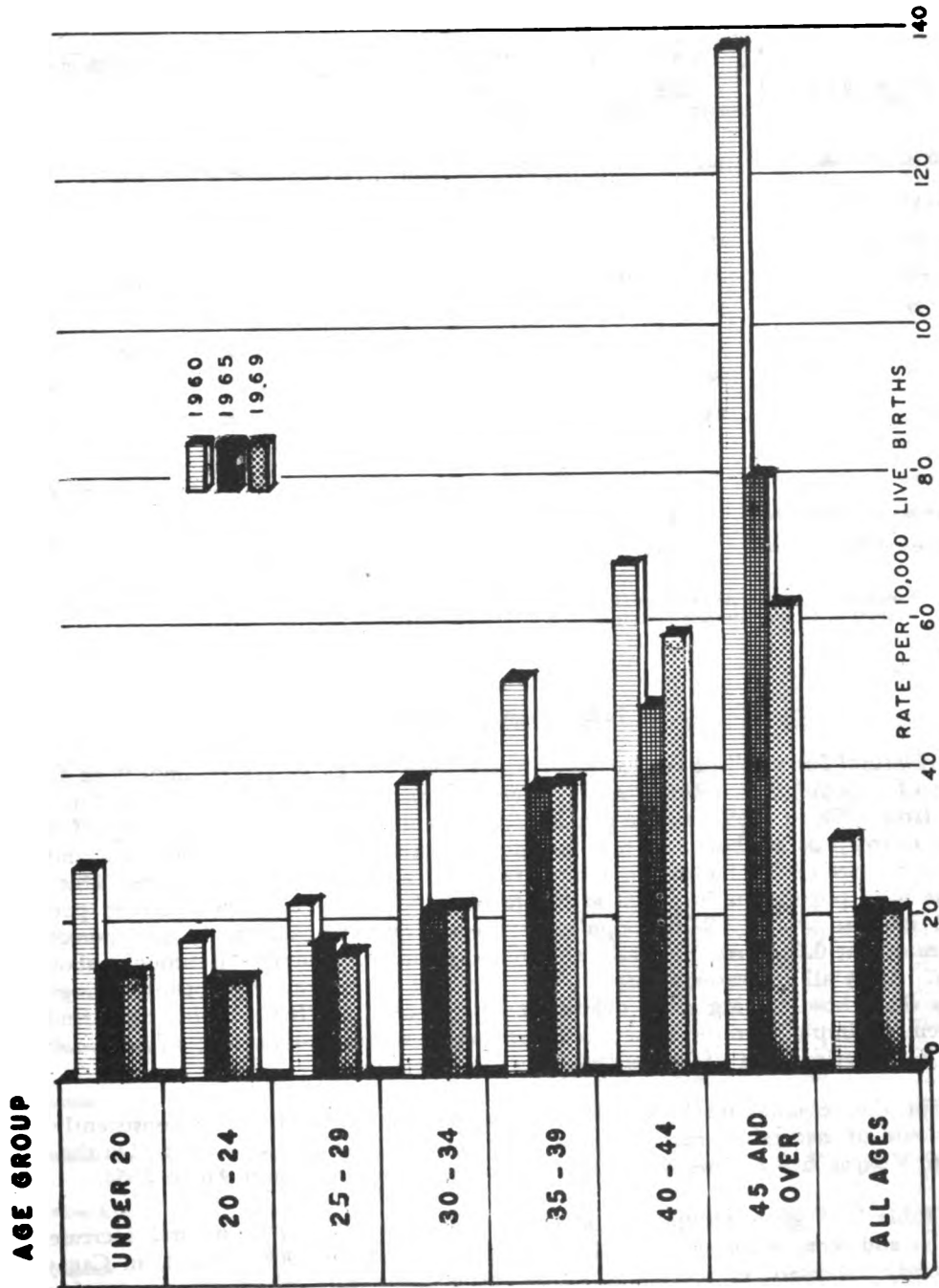
Sources: Department of Health, Disease Intelligence Center, Bureau of the Census and Statistics, Demography and Vital Statistics Division and Central Research Division.

Of the 2,047 maternal deaths in 1969, 1,244 were due to haemorrhage of pregnancy or childbirth and puerperium, 318 resulted from toxæmias of pregnancy and puerperium, 310 from other complication of pregnancy, 137 from sepsis of pregnancy, childbirth and puerperium and 77 from abortive delivery.

## Age at Death

Table V.17 and Figure V.4 show the distribution of maternal deaths by age group. In 1969, the average age of mothers at death is approximately three years higher than the average age of all mothers at the time of childbirth — 31.3 at death compared to 27.9 at childbirth. Although maternal death rates for all age groups have been declining, there is always that increasing trend in death rate as age of mother increases. Maternal mortality rates per 10,000 live births for all ages declined from 31.5 in 1960 to 21.6 in 1969.

**FIGURE V.4**  
**MATERNAL DEATHS: 1960, 1965 & 1969**



**SOURCES: DEPT. OF HEALTH DISEASE INTELLIGENCE CENTER  
 BUREAU OF THE CENSUS AND STATISTICS**

TABLE V.17 - MATERNAL MORTALITY AND RATES PER 10,000 LIVE BIRTHS, BY AGE GROUP: 1960, 1965 and 1969

AGE GROUP	MATERNAL DEATHS						RATES PER 10,000 LIVE BIRTHS		
	1960		1965		1969		1960	1965	1969
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT			
TOTAL, ALL AGES	1,981	100.0	1,797	100.0	2,047	100.0	31.5	22.1	21.6
Below - 15									
15 - 19 years	116	5.9	82	4.7	102	5.0	28.1	14.8	14.2
20 - 24 "	357	18.0	267	15.2	330	16.1	18.7	13.2	13.2
25 - 29 "	390	19.7	407	23.2	424	20.7	23.6	18.3	16.6
30 - 34 "	454	22.9	343	19.5	412	20.1	39.8	22.4	22.6
35 - 39 "	398	20.1	409	23.3	487	23.8	53.6	38.9	39.3
40 - 44 "	184	9.3	180	10.2	247	12.1	68.9	50.3	59.2
45 and over	82	4.1	54	3.1	45	2.2	138.2	80.5	63.1
Not Stated	-	-	15	.9	-	-	-	11.9	-
Average age at deaths - years	30.9		31.3		31.2		-	-	-
Median age at death - years	30.9		31.3		31.5		-	-	-

Source: Department of Health Disease Intelligence Center, Bureau of the Census and Statistics, Demography and Vital Statistics Division, Central Research Division.

## NATURAL INCREASE

"Natural Increase" or the excess of births over deaths is a very important factor in the growth of a population. Estimates of natural increase and rates per thousand population by region from 1958 to 1969, may be gleaned from Table V.1a at the beginning of the chapter. For the country, as a whole, the rate of natural increase varied between 11.6 and 20.8 — a result of a more or less steady high birth rate and a declining death rate. This means also that the total population increased at a rate of 1.16 percent to 2.08 percent per annum by natural increase alone. With population growth rate estimated to be 3.01 percent annually, this means that 0.93 percent to 1.85 percent of population increase is brought about by immigration. Since all indications point to the fact that there are more people going out of the country than those coming in as evidenced by the so-called "Brain drain" these findings, therefore seem to imply that there is under-registration or under-reporting of vital events data which is a confirmation of the observations stated earlier.

For the regional level, Manila, considered a region by itself has consistently shown the highest rate of natural increase ranging from 42.0 in 1962 to 58.8 in 1965. On the other hand, Western Visayas has registered the lowest rate — 2.0 in 1958 and 9.6 in 1964.

Table V.18 gives provincial and regional figures in rates of natural increase separately for males and females for the years 1966, 1967 and 1968. In 1968 Batanes, in Cagayan Valley, surprisingly showed an increment in natural increase rate which was more than twice as much as in the previous years and higher than that registered in Manila — 66.8 compared with 23.7 and 27.5 for 1967 and 1966, respectively.

The rates of natural increase are higher for males than for females in most of the provinces because of the higher birth rates for males. However, at higher age groups there is an eventual excess of females in the total population because of the higher incidence of deaths among the males.

Table V.16 - NATURAL INCREASE AND RATES PER 1,000 POPULATION BY SEX, REGION AND PROVINCE: 1966-1968

Region/Province	Year	Excess of births over deaths	Rate per 1,000 population	Males		Females	
				Number	Rate per 1,000 population	Number	Rate per 1,000 population
PHILIPPINES							
	1966	586,946	17.9	300,901	18.2	286,045	17.6
	1967	600,180	17.8	299,975	17.6	302,205	18.0
	1968	636,677	18.3	325,522	18.6	311,155	18.1
I - Manila	1966	67,997	54.0	34,773	55.4	33,224	51.0
	1967	66,821	52.3	33,978	55.3	32,843	49.8
	1968	71,379	47.6	36,451	50.5	34,928	46.0
II - Iloos and Mt. Provinces	1966	32,969	19.5	17,215	20.6	15,754	18.1
	1967	33,144	19.2	16,589	19.5	16,555	19.0
	1968	35,585	18.3	18,563	19.3	17,022	17.4
Alava	1966	2,222	16.7	1,239	18.5	983	14.9
	1967	1,777	12.8	951	14.0	786	11.6
	1968	2,377	15.6	1,209	15.7	1,168	16.6
Bangas	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	6,389	45.6	3,370	47.4	3,019	43.8
Ifugao	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	552	6.1	291	6.5	261	5.8
Iloos Norte	1966	7,687	23.9	3,953	25.1	3,734	22.6
	1967	8,460	25.9	4,382	27.6	4,078	24.3
	1968	7,253	19.2	3,825	20.9	3,428	17.6
Iloos Sur	1966	6,229	15.01	3,369	16.8	2,860	13.4
	1967	6,420	17.2	3,047	16.8	3,373	17.6
	1968	7,725	17.4	3,967	18.4	3,758	16.5
Kalinga Apayao	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	1,174	9.9	593	9.3	581	9.4
La Union	1966	9,264	27.2	4,731	28.8	4,533	26.2
	1967	8,833	25.2	4,306	25.0	4,527	25.4
	1968	9,404	24.3	4,946	28.0	4,458	22.7
Mountain Provinces	1966	7,367	14.4	3,923	14.4	3,444	14.0
	1967	7,714	14.3	3,903	14.3	3,811	14.3
	1968	711	1.2	362	1.2	349	1.2
III - Cagayan Valley	1966	28,420	22.1	14,724	22.5	13,696	21.7
	1967	25,977	19.6	13,449	19.9	12,528	19.2
	1968	30,767	22.4	15,934	22.8	14,833	22.0
Batanes	1966	303	27.5	152	30.4	151	25.2
	1967	261	23.7	142	28.4	119	19.8
	1968	735	66.8	398	79.6	337	56.2
Cagayan	1966	12,006	28.8	6,292	23.7	5,714	22.0
	1967	10,867	20.1	5,632	20.6	5,235	19.7
	1968	13,385	22.7	6,868	23.0	6,517	22.9
Isabela	1966	11,990	21.3	6,137	21.4	5,853	21.3
	1967	11,136	19.1	5,729	19.2	5,407	19.0
	1968	12,614	21.5	6,569	21.9	6,045	21.1
Marina Visaya	1966	4,121	22.2	2,143	22.6	1,978	21.7
	1967	3,713	19.1	1,946	19.7	1,767	18.4
	1968	4,033	22.0	2,099	22.6	1,934	21.4
IV - Central Luzon	1966	104,872	23.2	54,026	24.1	50,846	22.4
	1967	99,299	21.3	52,231	22.5	47,068	20.2
	1968	112,228	23.0	57,440	23.9	54,788	22.7
Aurora	1966	4,669	25.1	2,420	25.5	2,249	24.7
	1967	4,483	23.1	2,180	22.2	2,303	24.0
	1968	4,905	25.4	2,486	25.4	2,419	25.4
Bataan	1966	13,283	18.5	6,707	18.8	6,576	18.2
	1967	13,347	18.5	7,116	19.2	6,231	17.9
	1968	17,304	23.5	8,857	24.2	8,447	22.3
Marina del Norte	1966	14,072	18.8	7,384	20.5	6,688	17.1
	1967	13,071	16.9	7,066	18.3	6,005	15.6
	1968	14,685	18.3	7,654	19.1	7,031	17.6
Pampanga	1966	17,764	22.6	9,268	23.6	8,496	21.7
	1967	16,930	20.8	8,626	21.2	8,304	20.3
	1968	21,015	25.7	10,747	26.3	10,268	25.0
Pangasinan	1966	31,449	24.5	16,089	25.3	15,360	23.8
	1967	27,535	21.0	14,236	21.9	13,299	20.2
	1968	29,641	19.9	15,157	19.9	14,484	19.5
Tarlac	1966	14,732	29.2	7,549	29.7	7,183	28.6
	1967	13,807	26.6	7,143	27.5	6,664	25.7
	1968	14,651	25.9	7,501	24.1	7,150	27.0
Zambales	1966	8,903	30.9	4,609	32.0	4,294	29.8
	1967	9,626	32.0	5,864	33.8	3,762	25.1
	1968	10,027	35.2	5,038	35.5	4,989	34.6



Table V.16 - NATURAL INCREASE AND RATES PER 1,000 POPULATION BY SEX, REGION AND PROVINCE: 1966-1968 - Continued

Region/Province	Year	Excess of births over deaths	Rate per 1,000 population	Males		Females	
				Number	Rate per 1,000 population	Number	Rate per 1,000 population
V - Southern Luzon and Islands							
	1966	123,993	21.7	62,797	22.0	61,196	21.4
	1967	130,443	21.8	64,151	21.5	66,292	22.1
	1968	134,584	23.9	67,974	24.2	66,610	23.1
Batangas	1966	22,016	26.7	11,264	27.3	10,752	25.3
	1967	21,426	25.2	10,663	25.3	10,763	25.2
	1968	21,004	23.3	10,636	23.9	10,368	22.9
Cavite	1966	6,788	14.7	3,385	14.8	3,403	14.7
	1967	6,655	14.0	3,383	14.3	3,272	13.7
	1968	7,169	14.3	3,599	14.4	3,570	14.2
Laguna	1966	14,364	23.8	7,255	23.9	7,109	23.7
	1967	14,174	22.6	7,132	22.6	7,042	22.6
	1968	13,878	22.2	6,983	22.0	6,895	22.3
Marikina	1966	2,764	20.9	1,361	20.6	1,403	21.3
	1967	2,528	18.7	1,325	19.5	1,203	18.0
	1968	2,612	17.3	1,280	17.2	1,332	17.8
Mindoro Occidental	1966	2,917	24.5	1,511	24.4	1,406	24.7
	1967	2,966	23.7	1,501	23.1	1,465	24.4
	1968	3,220	28.5	1,615	27.4	1,605	29.7
Mindoro Oriental	1966	3,994	13.9	2,827	13.8	1,167	14.1
	1967	4,576	15.4	2,125	14.0	2,451	16.9
	1968	5,720	18.7	3,047	19.3	2,673	17.8
Palawan	1966	2,485	12.36	1,313	11.8	1,172	12.3
	1967	2,076	9.8	1,040	9.1	1,036	10.5
	1968	2,694	12.5	1,299	10.9	1,395	13.7
Quezon	1966	22,950	27.2	11,569	26.7	11,381	27.7
	1967	21,297	24.3	10,047	22.2	11,250	26.4
	1968	21,506	24.9	10,808	23.3	10,698	25.5
Rizal	1966	45,715	20.4	23,112	21.1	22,603	19.7
	1967	54,745	22.9	26,935	23.1	27,810	22.7
	1968	56,781	29.2	28,732	30.3	28,049	28.4
VI - Bicol and Masbate							
	1966	46,239	17.0	24,054	17.4	22,185	16.6
	1967	46,647	16.7	24,337	17.1	22,310	16.4
	1968	43,993	14.0	22,981	14.8	21,012	13.7
Albay	1966	17,217	28.3	9,032	30.00	8,185	27.2
	1967	19,762	31.6	10,598	33.5	9,164	29.7
	1968	17,006	25.0	8,837	25.6	8,229	24.1
Camarines Norte	1966	5,499	23.8	2,834	23.8	2,665	23.8
	1967	6,143	25.7	3,517	28.3	2,626	22.8
	1968	5,160	20.7	2,723	21.3	2,437	20.0
Camarines Sur	1966	13,857	15.4	7,200	15.7	6,657	15.1
	1967	14,577	16.0	7,134	15.3	7,443	16.3
	1968	15,024	13.8	7,931	14.2	7,093	13.3
Catanduanes	1966	2,734	17.0	1,415	17.5	1,319	16.9
	1967	2,085	12.9	1,097	13.2	988	12.5
	1968	2,727	13.2	1,449	13.7	1,278	12.6
Masbate	1966	992	2.3	496	2.3	496	2.4
	1967	957	2.2	415	1.8	542	2.5
	1968	724	1.6	368	1.6	356	1.6
Sorsogon	1966	5,940	15.0	3,077	15.1	2,863	14.9
	1967	3,123	7.7	1,576	7.5	1,547	7.9
	1968	3,292	7.2	1,673	7.1	1,619	7.3
VII - Western Visayas							
	1966	27,257	7.6	13,792	7.7	13,465	7.6
	1967	29,913	8.3	14,116	7.8	15,797	8.8
	1968	29,451	6.9	14,344	6.7	15,107	7.2
Aklan	1966	2,500	10.0	1,241	10.2	1,259	10.2
	1967	2,275	9.0	1,146	9.2	1,129	8.8
	1968	2,102	7.1	1,240	9.8	862	6.6
Antique	1966	1,890	6.9	1,022	7.7	828	6.0
	1967	2,209	8.1	1,229	9.0	980	6.4
	1968	2,265	7.2	1,326	9.5	939	6.7
Capiz	1966	194	.53	100	.6	94	.5
	1967	1,097	3.0	379	2.1	718	3.9
	1968	1,230	3.0	548	2.9	682	3.6
Iloilo	1966	9,413	8.6	4,902	9.0	4,511	8.2
	1967	8,432	7.6	4,123	7.5	4,309	7.7
	1968	6,838	6.9	4,341	6.9	4,497	7.0
Negros Occidental	1966	9,577	6.6	4,571	6.2	5,006	7.1
	1967	13,208	9.1	5,824	7.8	7,384	10.4
	1968	12,405	7.1	5,599	6.2	6,806	7.9
Zamboanga	1966	3,723	.65	1,996	25.7	1,727	22.9
	1967	2,692	17.3	1,415	18.4	1,277	16.2
	1968	2,611	15.0	1,290	13.0	1,321	16.0

Table V.18 - NATURAL INCREASE AND RATES PER 1,000 POPULATION BY SEX, REGION AND PROVINCE: 1966-1968 - Continued

Region/Province	Year	Excess of births over deaths	Rate per 1,000 population	Males		Females		
				Number	Rate per 1,000 population	Number	Rate per 1,000 population	
VIII - Eastern Visayas	1966	66,738	13.1	34,628	13.6	32,080	12.7	
	1967	70,568	13.7	35,578	13.0	36,990	14.3	
	1968	73,680	12.3	38,112	12.7	35,568	11.8	
	Bohol	1966	12,313	19.0	6,601	20.8	5,712	17.2
	1967	12,685	19.3	6,192	19.2	6,493	19.3	
	1968	13,202	16.9	7,056	16.5	6,146	17.4	
	Cebu	1966	32,326	21.3	16,995	22.6	15,331	19.4
	1967	31,737	20.5	15,378	20.3	16,359	19.8	
	1968	34,532	19.7	18,575	21.6	15,957	17.9	
	Eastern Samar	1966	2,876	11.1	1,322	9.9	1,554	12.9
	1967	3,764	14.3	1,694	12.6	2,070	16.2	
	1968	1,318	3.4	676	3.2	642	4.1	
	Leyte	1966	7,422	7.0	3,701	6.8	3,721	7.3
	1967	9,156	8.6	3,819	7.1	5,337	10.0	
	1968	8,585	6.8	3,899	6.1	4,686	7.4	
	Negros Oriental	1966	7,889	11.8	4,131	12.2	3,758	11.4
	1967	9,646	14.2	4,681	13.6	4,965	14.7	
	1968	9,023	11.4	4,593	11.5	4,430	11.4	
	Northern Samar	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-	-
	1968	809	2.7	363	2.4	446	3.1	
	Southern Leyte	1966	3,912	16.64	1,908	16.2	2,004	17.1
	1967	3,580	15.0	1,814	15.1	1,766	14.8	
	1968	4,396	15.9	2,139	15.4	2,257	16.4	
	Western Samar	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-	-
	1968	1,815	4.2	811	3.7	1,004	4.8	
IX - Northern Mindanao	1966	35,077	15.9	17,571	15.2	17,506	13.7	
	1967	32,666	12.0	16,257	11.5	16,409	12.4	
	1968	36,045	15.5	18,702	16.1	17,343	12.7	
	Agusan del Norte	1966	7,107	30.2	3,595	29.5	3,512	31.0
	1967	5,540	22.5	2,683	21.1	2,857	24.0	
	1968	5,934	16.4	3,016	16.1	2,918	16.6	
	Agusan del Sur	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-	-
	1968	1,494	9.5	783	9.7	711	9.4	
	Davao	1966	3,529	11.0	1,775	10.6	1,754	14.5
	1967	4,426	12.9	2,347	13.1	2,079	12.8	
	1968	5,430	20.6	2,958	21.4	2,472	19.6	
	Comiguin	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-	-
	1968	-	-	-	-	-	-	-
	Lanao del Norte	1966	5,719	16.1	2,905	17.6	2,814	11.4
	1967	5,858	18.0	2,832	16.8	3,026	19.3	
	1968	6,530	18.1	3,322	17.8	3,208	18.4	
	Lanao del Sur	1966	874	2.1	462	2.0	412	2.2
	1967	1,213	2.8	659	2.8	554	2.6	
	1968	415	.82	204	0.8	211	0.9	
	Misamis Occidental	1966	6,265	21.5	3,212	21.9	3,053	21.2
	1967	7,120	23.9	3,699	24.7	3,421	23.2	
	1968	6,712	20.7	3,599	21.6	3,113	19.1	
	Misamis Oriental	1966	8,783	18.7	4,338	18.0	4,445	19.4
	1967	8,509	19.7	4,037	16.3	4,472	19.9	
	1968	9,530	19.1	4,880	19.1	4,650	19.1	
	Sarigan del Norte	1966	584	2.6	234	2.1	350	3.2
	1967	615	2.7	301	2.7	314	2.8	
	1968	692	2.7	305	2.4	387	3.3	
	Sarigan del Sur	1966	2,226	10.2	1,030	9.5	1,196	10.9
	1967	2,661	11.6	1,241	10.7	1,420	12.6	
	1968	2,845	13.0	1,365	12.3	1,480	13.7	

Table V.18 - NATURAL INCREASE AND RATES PER 1,000 POPULATION BY SEX, REGION AND PROVINCE: 1966-1968 - Continued

Region/Province	Year	Excess of births over deaths	Rate per 1,000 population	Males		Females	
				Number	Rate per 1,000 population	Number	Rate per 1,000 population
<b>I - Southern Mindanao and Sulu</b>	1966	53,384	13.2	27,291	14.6	26,093	15.4
	1967	64,682	14.7	31,289	13.6	33,393	15.8
	1968	68,965	14.3	35,021	13.9	33,944	14.6
Davao del Norte	1966	26,131	39.4	13,381	33.4	12,750	40.5
	1967	33,374	86.7	16,128	79.8	17,246	28.1
	1968	10,949	9.2	5,620	9.0	5,329	9.4
Davao del Sur	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	19,008	26.3	9,769	25.8	9,239	26.8
Davao Oriental	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	4,418	19.8	2,304	19.7	2,114	19.9
Cotabato	1966	14,973	15.4	7,775	15.2	7,198	15.7
	1967	14,801	14.6	7,020	13.2	7,781	16.3
	1968	9,038	6.6	4,581	6.3	4,457	6.9
South Cotabato	1966	-	-	-	-	-	-
	1967	-	-	-	-	-	-
	1968	7,508	17.6	3,912	17.4	3,596	17.8
Sulu	1966	233	.60	112	.56	121	.64
	1967	829	2.1	428	2.1	401	2.1
	1968	752	1.7	369	1.7	383	1.8
Zamboanga del Norte	1965	3,651	10.25	1,813	10.0	1,838	10.6
	1967	3,140	8.5	1,458	7.8	1,682	9.3
	1968	3,784	10.1	1,914	9.8	1,870	10.0
Zamboanga del Sur	1966	8,396	9.2	4,210	8.9	4,186	9.6
	1967	9,262	9.8	4,713	9.6	4,549	10.0
	1968	9,971	10.0	4,882	9.6	5,089	10.9

Source: Demography and Vital Statistics Division  
Central Research Unit

## MARRIAGES

Table V.1a shows marriages and rates per 1,000 population by region for the years 1958 to 1969. Table V.19 illustrates marriages and rates per 1,000 population by province for the later years 1965 to 1969.

For the country, as a whole, the number of marriages increased from 184,268 or 5.8 per 1,000 population in 1965 to 231,201 or 6.5 per 1,000 population in 1969. This represents an increase of 46,933 or 25.5 percent over a period of four years, which increase, may be attributed to the improved collection of vital events resulting from an intensive civil registration campaign conducted by the office of the Civil Registrar General.

In the provincial level, Davao, Agusan del Norte, Rizal and Tarlac have consistently shown high marriage rates. Manila, which is always included in regional and provincial tabulations because of its unique geographical location, also scores high in the number and rate of marriages. The lowest rates registered took place in the provinces of Lanao del Sur and Sulu with rates ranging from .2 to .5 per thousand population.

## MARRIAGES

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Table V.19 - MARRIAGES AND RATES PER 1,000 POPULATION BY PROVINCE: 1965 - 1969

	1965		1966		1967		1968		1969	
	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population
<b>PHILIPPINES</b>	<b>184,268</b>	<b>5.8</b>	<b>185,921</b>	<b>5.7</b>	<b>189,897</b>	<b>5.6</b>	<b>210,520</b>	<b>6.1</b>	<b>231,201</b>	<b>6.5</b>
Abra	300	2.3	482	3.6	414	3.0	499	3.6	521	3.6
Agusan del Norte	1,795	8.0	2,037	8.7	2,171 g/	8.8	1,827	7.1	1,920	7.2
Agusan del Sur	-	-	-	-	-	-	691	4.4	874	5.3
Aklan	1,219	4.1	1,010	4.1	1,091	4.4	1,344	5.2	1,290	5.0
Albay	3,626	6.1	4,144	6.8	3,324	5.3	3,180	5.0	3,848	5.8
Antique	1,337	5.4	1,120	4.2	1,184	4.3	1,375	4.9	1,348	4.7
Bataan	1,201	6.7	1,378	7.4	1,217	6.3	1,679	8.3	1,782	8.5
Batanes	41	3.7	106	9.6	74	6.7	28	2.5	54	4.9
Batangas	5,412	6.8	5,583	6.8	5,285	6.2	5,932	6.1	6,370	7.5
Benguet	-	-	-	-	-	-	1,332	5.4	1,498	5.9
Bicol	3,082	4.8	2,642	4.1	2,921	4.4	3,651	5.3	3,385	5.0
Bukidnon	1,420	4.8	2,054	6.4	2,117	6.2	2,193	6.0	2,439	6.2
Bulacan	4,822	6.8	5,447	7.6	5,493	7.4	6,233	8.0	6,590	8.1
Cagayan	2,696	5.3	2,684	5.1	2,834	5.2	3,187	5.6	2,926	5.1
Comarinas Norte	1,210	5.4	1,369	5.9	1,572	6.6	1,557	6.3	1,701	6.7
Comarinas Sur	4,488	5.1	4,403	4.9	4,581	5.0	4,234	4.6	4,847	5.2
Comigala	-	-	-	-	-	-	347	6.7	353	6.7
Copla	1,597	4.4	1,148	3.2	1,698	4.6	2,051	5.4	2,075	5.4
Cotabato	658	4.1	712	4.4	584	3.6	603	3.7	889	5.5
Cebu	2,967	6.6	3,085	6.7	3,345	7.0	3,447	7.0	4,049	8.0
Cebu	10,296	6.9	9,223	6.1	10,308	6.7	10,631	6.7	10,774	6.7
Cotabato	5,286 g/	5.7	5,639 g/	5.8	5,772 g/	5.7	3,823	3.6	4,229	3.9
Davao del Norte)	-	-	-	-	-	-	2,153	5.3	2,989	7.0
Davao del Sur)	7,186 g/	11.3	6,005 g/	9.1	7,863 g/	11.3	5,277	7.3	6,379	8.4
Davao Oriental)	-	-	-	-	-	-	1,197	5.4	1,658	7.0
Eastern Samar	-	-	-	-	-	-	718	2.7	903	3.4
Ifugao	-	-	-	-	-	-	119	1.3	116	1.3
Ilocos Norte	1,918	6.1	1,761	6.1	2,048	6.2	2,124	6.4	2,164	6.4
Ilocos Sur	1,651	4.5	1,870	5.1	1,566	4.2	2,384	6.3	2,307	6.1
Iloilo	5,602	5.2	5,900	5.4	4,903	4.4	6,176	5.5	6,207	5.4
Isabela	3,515	6.6	3,429	6.1	2,831	4.9	3,979	6.6	3,975	6.3
Kalinga Apayao	-	-	-	-	-	-	399	3.2	343	2.6
La Union	1,978	5.9	2,006	5.9	2,091	6.0	2,182	6.1	2,512	6.9
Laguna	3,990	6.9	4,381	7.25	4,425	7.0	4,984	7.6	5,446	8.0
Marikina del Norte	1,446	4.7	1,531	4.8	1,546	4.7	1,721	5.2	1,775	5.2
Marikina del Sur	154	4	206	5	127	3	160	4	227	5
Leyte	6,037	5.8	5,046	4.8	5,514	5.2	5,942	5.5	6,069	5.5
Manila	11,561	9.3	12,067	9.6	11,843	9.3	13,420	10.4	15,402	11.7
Marikina	724	5.6	984	7.5	749	5.5	875	6.3	776	5.5
Marikina	1,692	4.1	1,910	4.5	1,613	3.6	1,795	3.9	2,373	5.0
Misamis Occidental	1,906	6.7	2,066	7.1	2,424	8.3	1,943	6.3	2,233	7.1
Misamis Oriental	2,556 g/	6.3	2,501 g/	5.6	2,583 g/	6.0	2,696	6.0	3,078	6.7
Mountain Province	1,821 g/	3.6	1,821 g/	3.5	2,171 g/	4.0	351	3.9	325	3.5
Negros Occidental	6,165	4.4	6,032	4.2	7,913	5.3	8,399	5.6	8,832	6.0
Negros Oriental	3,435	5.2	3,420	5.1	3,562	5.2	3,664	5.3	3,839	5.4

Table V.19 - MARRIAGES AND RATES PER 1,000 POPULATION BY PROVINCE: 1965 - 1969 - Continued

	1965		1966		1967		1968		1969	
	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population	Total Marriages	Rate per 1,000 population
Northern Samar	-	-	-	-	-	-	551	1.8	966	3.2
Nueva Ecija	5,430	7.5	4,916	6.6	5,819	7.5	5,560	6.9	6,075	7.3
Nueva Visaya	1,099	5.9	1,061	5.6	1,017	5.2	1,116	5.5	1,195	5.6
Occidental Mindoro	714	6.3	720	6.1	682	5.5	775	5.9	825	6.0
Oriental Mindoro	1,741	6.3	1,649	5.8	1,453	4.9	1,806	5.9	2,195	6.9
Palawan	947	4.9	1,004	4.9	998	4.7	1,116	5.0	1,190	5.0
Pangasinan	5,604	7.5	5,839	7.4	6,931	8.3	6,930	8.2	7,909	9.0
Pangasinan	8,222	6.5	8,640	5.3	8,604	6.0	9,128	6.8	9,952	7.3
Quezon	5,254	6.5	5,863	6.9	4,799	5.4	5,721	6.3	6,088	6.4
Rizal	17,006	8.1	18,273	8.1	17,589	7.4	22,180	8.7	24,439	9.0
Romblon	855	5.7	901	5.9	665	4.3	696	4.1	906	5.5
Samarang	2,306	5.9	1,878	4.7	1,590	3.9	1,306	3.2	1,755	4.2
South Cotabato	-	-	-	-	-	-	2,378	5.6	3,102	6.0
Southern Leyte	1,041	4.6	1,145	4.9	1,086	4.5	1,290	5.1	1,298	5.1
Sulu	119	.3	152	.4	147	.4	122	.3	97	.2
Surigao del Norte	862	4.0	845	3.8	870	3.8	1,306	5.7	1,161	4.9
Surigao del Sur	1,198	5.7	1,296	6.35	1,116	5.7	1,461	6.1	1,615	6.5
Tarlac	3,545	8.3	3,515	7.0	3,862	7.4	3,986	7.5	4,326	7.9
Western Samar	3,755 <sup>g/</sup>	9.2	2,928 <sup>g/</sup>	7.1	2,438 <sup>g/</sup>	5.8	1,154	2.7	1,434	3.3
Zambales	1,839	6.7	1,897	6.6	2,021	6.7	2,818	8.9	3,120	9.5
Zamboanga del Norte	1,584	4.6	1,879	6.3	1,912	5.2	1,944	5.0	2,098	5.2
Zamboanga del Sur	4,439	5.0	4,138	4.5	4,661	4.9	4,860	5.13	5,882	5.8

<sup>g/</sup> Includes data of Agusan del Sur.<sup>h/</sup> Includes data of South Cotabato.<sup>i/</sup> Includes data of Davao del Norte and Oriental.<sup>j/</sup> Includes data of Comigita.<sup>k/</sup> Includes data of Benguet, Ifugao and Kalanga-Apayao.<sup>l/</sup> Includes data of Eastern and Northern Samar.

Source: Demography and Vital Statistics Division.

## Age and Marital Status of Brides and Bridegrooms

Table V.20 shows the age and marital status of brides and grooms from 1965 to 1969, while the accompanying chart presents the percent distribution of marriages in the Philippines by age of the groom and the bride for 1968 only. For the year 1969, 98.8 percent of the brides and 97.8 percent of the grooms were single or had never previously married, 1.1 percent of the brides and 2.0 percent of the grooms had been widowed and a negligible portion of the brides and 0.1 percent of the bridegrooms had been divorced or separated. The median ages at marriage of single men and women had been fairly consistent throughout the years ranging from 23.7 to 24.1 for the former and 20.9 to 21.0 for the latter. For widowers, the median age at the time of remarriage ranged from 44.7 to 48.2 while for widows — 39.2 to 41.2. Divorced or separated brides remarry relatively younger than their male counterparts for the simple reason that females enter wedlock at a younger age than the males as stated earlier.

**FIGURE V.5**  
**PERCENT DISTRIBUTION OF BRIDES AND GROOMS,**  
**BY AGE GROUP: 1968**

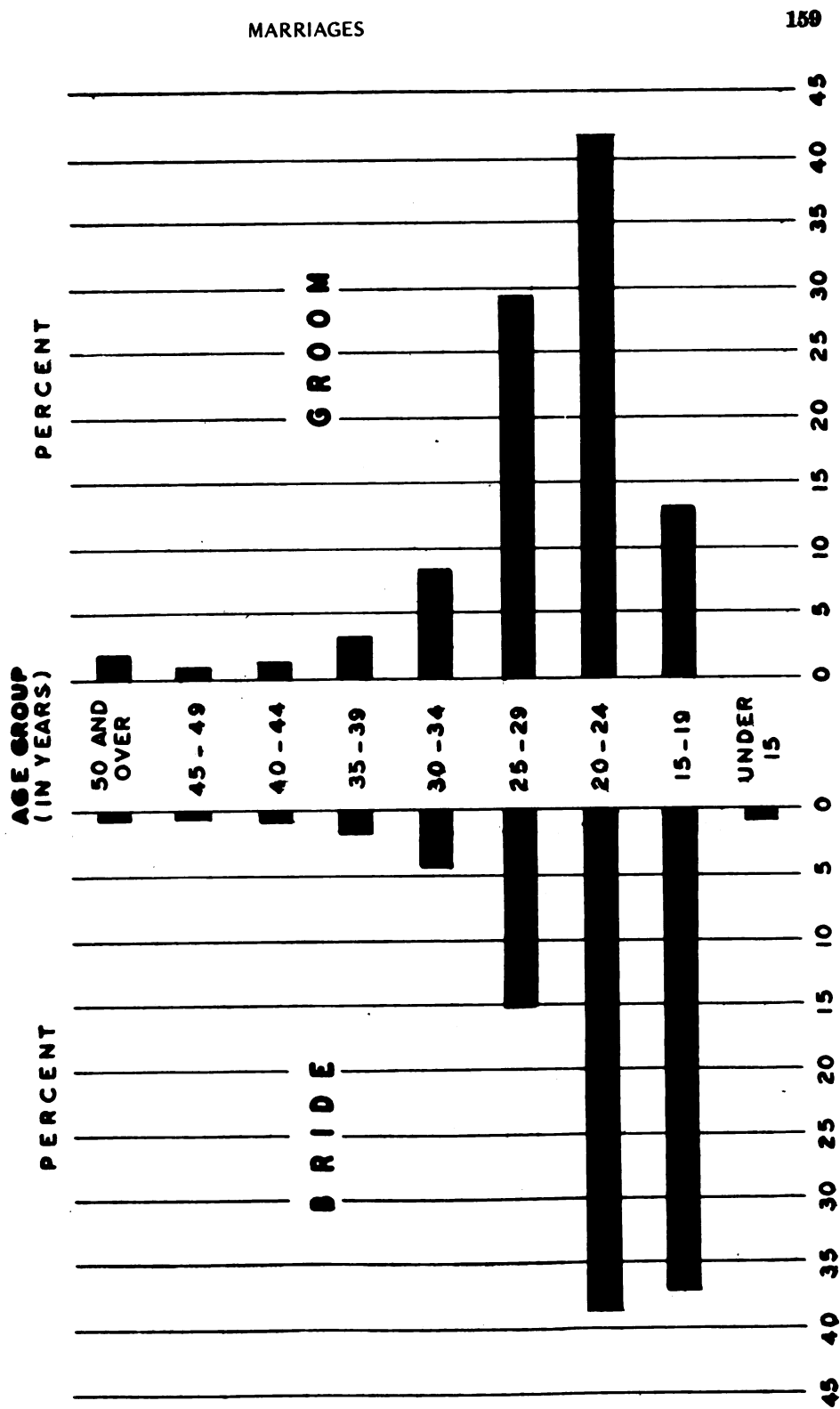


Table V.20—BRIDES AND BRIDEGROOMS, BY AGE AND MARITAL STATUS: 1965 - 1969

Year and age group	Brides									
	Total		Single		Widowed		Divorced or separated		Not stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1965										
Under - 15	1,626	.9	1,623	.9	2	.1	-	-	1	.6
15 - 19	68,154	37.0	68,061	37.5	66	2.7	3	11.1	24	14.7
20 - 24	71,154	38.7	70,925	39.1	179	7.4	8	29.7	42	25.8
25 - 29	27,373	14.9	27,078	14.9	250	10.4	3	11.1	42	25.8
30 - 34	7,754	4.2	7,397	4.1	338	14.0	2	7.4	17	10.4
35 - 39	3,593	2.0	3,212	1.8	369	15.3	2	7.4	10	6.1
40 - 44	1,719	.9	1,373	.7	332	13.8	3	11.4	11	6.8
45 - 49	1,166	.6	843	.5	313	13.0	3	11.1	7	4.3
50 and over	1,445	.8	872	.5	561	23.3	3	11.1	9	5.5
Total Stated Ages	183,984	100.0	181,384	100.0	2,410	100.0	27	100.0	163	100.0
Age Not Stated	284	-	268	-	7	-	-	-	9	-
Totals, All Ages	184,268	100.0	181,652	98.6	2,417	1.3	27	-	172	.1
Average Ages	22.1	-	21.9	-	39.1	-	32.2	-	28.5	-
Median Ages	21.1	-	21.0	-	39.5	-	28.1	-	26.2	-
Grooms										
Under - 15	20	-	18	-	2	.1	-	-	-	-
15 - 19	22,610	12.3	22,561	12.6	44	1.0	-	-	5	3.2
20 - 24	78,698	42.8	78,448	43.7	218	5.1	4	2.5	28	18.0
25 - 29	54,738	29.7	54,401	30.3	283	6.6	17	10.5	37	23.7
30 - 34	14,365	7.8	13,953	7.8	369	8.6	25	15.4	18	11.5
35 - 39	5,588	3.0	5,080	2.8	471	11.0	17	10.5	20	12.8
40 - 44	2,482	1.4	1,927	1.1	513	12.0	24	14.8	18	11.5
45 - 49	1,716	.9	1,165	.6	525	12.3	18	11.1	8	5.2
50 and over	3,843	2.1	1,916	1.1	1,848	43.3	57	35.2	22	14.1
Totals, Stated Ages	184,060	100.0	179,469	100.0	4,273	100.0	162	100.0	156	100.0
Age Not Stated	208	-	198	-	6	-	-	-	4	-
Totals, All Ages	184,268	100.0	179,667	97.5	4,279	2.3	162	.1	160	.1
Average Ages	25.2	-	24.8	-	43.2	-	41.9	-	33.9	-
Median Ages	23.9	-	23.8	-	46.8	-	43.2	-	31.7	-
Brides										
1966										
Under - 15	1,441	.8	1,435	.8	3	.1	1	2.7	2	.8
15 - 19	70,790	38.1	70,586	38.6	175	6.3	3	8.1	26	10.7
20 - 24	69,427	37.4	69,110	37.8	248	8.7	14	37.8	55	22.7
25 - 29	27,850	15.0	27,495	15.0	298	10.5	7	18.9	50	21.8
30 - 34	7,949	4.3	7,567	4.2	341	12.0	6	16.2	35	14.5
35 - 39	3,696	2.0	3,308	1.9	371	13.2	2	5.4	15	6.2
40 - 44	1,885	1.0	1,447	.8	415	14.6	3	8.1	20	9.3
45 - 49	1,142	.6	780	.4	352	12.4	-	-	10	4.1
50 and over	1,549	.8	892	.5	632	22.2	1	2.8	24	9.9
Totals, Stated Ages	185,729	100.0	182,620	100.0	2,835	100.0	37	100.0	237	100.0
Age Not Stated	192	-	180	-	7	-	-	-	5	-
Totals, All Ages	185,921	100.0	182,800	98.3	2,842	1.5	37	-	242	.2
Average Ages	22.1	-	21.8	-	38.1	-	27.1	-	30.6	-
Median Ages	21.0	-	20.9	-	39.2	-	24.9	-	28.1	-
Grooms										
Under - 15	19	-	18	-	1	-	-	-	-	-
15 - 19	24,660	13.2	24,542	13.6	107	2.2	4	1.9	7	3.1
20 - 24	77,213	41.6	76,763	42.6	401	7.8	22	18.4	27	11.5
25 - 29	54,652	29.4	54,115	30.0	450	8.7	43	20.7	44	18.5
30 - 34	14,937	8.1	14,442	8.1	445	8.6	26	12.5	44	18.6
35 - 39	5,914	3.2	5,276	2.9	576	11.1	29	13.9	33	13.9
40 - 44	2,695	1.5	2,081	1.2	580	11.2	16	7.7	18	7.7
45 - 49	1,754	.9	1,120	.6	607	11.7	14	6.7	13	5.6
50 and over	3,928	2.1	1,819	1.0	2,005	38.7	54	26.9	50	21.1
Totals, Stated Ages	185,792	100.0	181,176	100.0	5,172	100.0	208	100.0	236	100.0
Age Not Stated	129	-	124	-	4	-	-	-	1	-
Totals, All Ages	185,921	100.0	181,300	97.0	5,176	2.8	208	.1	237	.1
Average Ages	25.2	-	24.8	-	41.7	-	37.3	-	36.0	-
Median Ages	23.9	-	23.8	-	44.7	-	36.0	-	34.0	-

Table V.20—BRIDES AND BRIDEGROOMS, BY AGE AND MARITAL STATUS: 1965 - 1969 - Continued

Year and age group	Brides									
	Total		Single		Widowed		Divorced or separated		Not stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>1967</b>										
Under - 15	1,537	.8	1,537	.8	-	-	-	-	-	-
15 - 19	71,261	37.6	71,188	38.0	65	2.8	-	-	8	25.8
20 - 24	72,333	38.1	72,177	38.6	150	6.4	1	5.9	5	16.2
25 - 29	28,597	15.0	28,355	15.1	240	10.2	-	-	2	6.4
30 - 34	8,092	4.3	7,759	4.1	326	13.9	5	29.4	2	6.4
35 - 39	3,480	1.8	3,170	1.7	303	12.9	4	23.5	3	9.7
40 - 44	1,841	1.0	1,467	.8	365	15.5	5	29.4	4	12.9
45 - 49	1,146	.6	790	.4	349	14.8	1	5.9	6	19.4
50 and over	1,459	.8	904	.5	553	23.5	1	5.9	1	3.2
Totals, Stated Ages	189,746	100.0	187,347	100.0	2,351	100.0	17	100.0	31	100.0
Age Not Stated	151	-	144	-	6	-	-	-	1	-
Totals, All Ages	189,897	100.0	187,491	98.7	2,357	1.3	17	-	32	-
Average Ages	22.1	-	21.8	-	39.6	-	37.6	-	31.5	-
Median Ages	21.0	-	21.0	-	40.8	-	37.6	-	30.8	-
<b>Grooms</b>										
Under - 15	22	-	20	-	2	-	-	-	-	-
15 - 19	25,185	13.3	25,094	13.5	88	2.0	1	.5	2	5.6
20 - 24	79,425	41.8	79,179	42.8	234	5.3	8	3.9	4	11.1
25 - 29	55,403	29.3	55,107	29.8	271	6.0	18	8.9	7	19.4
30 - 34	15,763	8.3	15,406	8.3	328	7.3	27	13.2	2	5.6
35 - 39	5,645	3.0	5,160	2.8	457	10.2	27	13.3	1	2.8
40 - 44	2,713	1.4	2,051	1.2	619	13.7	39	19.1	4	11.1
45 - 49	1,744	.9	1,179	.6	546	12.1	16	7.8	3	8.3
50 and over	3,875	2.0	1,837	1.0	1,957	43.4	68	33.3	13	36.1
Totals, Stated Ages	189,775	100.0	185,033	100.0	4,502	100.0	204	100.0	36	100.0
Age Not Stated	122	-	111	-	10	-	-	-	1	-
Totals, All Ages	189,897	100.0	185,144	97.5	4,512	2.4	204	.1	37	-
Average Ages	25.2	-	24.7	-	43.3	-	41.5	-	38.8	-
Median Ages	23.9	-	24.1	-	46.8	-	42.2	-	42.2	-
<b>Brides</b>										
<b>1968</b>										
Under - 15	1,627	.8	1,625	.8	2	.1	-	-	-	-
15 - 19	78,125	37.1	78,060	37.6	54	2.3	1	5.0	10	17.2
20 - 24	81,135	38.6	81,019	38.9	98	4.2	5	25.0	13	22.4
25 - 29	31,716	15.1	31,494	15.2	209	8.9	2	10.0	11	19.0
30 - 34	9,259	4.4	8,929	4.3	323	13.8	2	10.0	5	8.6
35 - 39	3,770	1.8	3,415	1.6	348	14.8	2	10.0	5	8.6
40 - 44	1,943	.9	1,530	.7	407	17.4	4	20.0	2	3.5
45 - 49	1,201	.6	866	.4	327	13.9	2	10.0	6	10.3
50 and over	1,520	.7	935	.5	577	24.6	2	10.0	6	10.4
Totals, Stated Ages	210,296	100.0	207,873	100.0	2,345	100.0	20	100.0	58	100.0
Age Not Stated	224	-	219	-	5	-	-	-	-	-
Totals, All Ages	210,520	100.0	208,092	98.9	2,350	1.1	20	-	58	-
Average Ages	22.1	-	21.9	-	40.3	-	34.1	-	30.6	-
Median Ages	21.1	-	21.0	-	41.2	-	34.5	-	27.2	-
<b>Grooms</b>										
Under - 15	29	-	27	-	1	-	-	-	1	1.6
15 - 19	27,566	13.1	27,537	13.4	25	.6	3	1.3	1	1.5
20 - 24	87,886	41.8	87,716	42.6	131	3.2	24	10.2	15	23.8
25 - 29	62,090	29.5	61,883	30.1	164	3.9	31	13.2	12	19.0
30 - 34	17,423	8.3	17,081	8.3	308	7.4	25	10.6	9	14.3
35 - 39	6,526	3.1	6,053	2.9	429	10.4	34	14.5	10	15.9
40 - 44	3,034	1.4	2,381	1.2	623	15.1	28	11.9	2	3.2
45 - 49	1,788	.9	1,232	.6	526	12.7	27	11.5	3	4.8
50 and over	3,985	1.9	1,981	.9	1,931	46.7	63	26.8	10	15.9
Totals, Stated Ages	210,327	100.0	205,891	100.0	4,138	100.0	235	100.0	63	100.0
Age Not Stated	193	-	186	-	7	-	-	-	-	-
Totals, All Ages	210,520	100.0	206,077	97.9	4,145	2.0	235	.1	63	-
Average Ages	25.0	-	24.8	-	44.6	-	39.1	-	33.1	-
Median Ages	23.9	-	23.8	-	48.2	-	44.6	-	30.1	-



Table V.20—BRIDES AND BRIDEGROOMS, BY AGE AND MARITAL STATUS: 1965 - 1969 - Continued

Year and age group	Brides									
	Total		Single		Widowed		Divorced or separated		Not stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1969										
Under - 15	1,810	.8	1,804	.8	6	.2	-	-	-	-
15 - 19	85,924	37.2	85,817	37.6	90	3.4	1	5.0	16	24.2
20 - 24	90,217	39.0	90,028	39.4	177	6.7	2	10.0	10	15.1
25 - 29	33,982	14.7	33,730	14.8	236	8.9	4	20.0	12	18.2
30 - 34	10,102	4.4	9,709	4.3	385	14.6	2	10.0	6	9.1
35 - 39	4,127	1.8	3,708	1.6	413	15.6	-	-	6	9.1
40 - 44	2,102	.9	1,690	.7	406	15.4	2	10.0	4	6.1
45 - 49	1,235	.5	860	.4	367	13.9	4	20.0	4	6.1
50 and over	1,507	.7	930	.4	564	21.3	5	25.0	8	12.1
Totals, Stated Ages	231,006	100.0	228,276	100.0	2,644	100.0	20	100.0	66	100.0
Age Not Stated	195	-	190	-	4	-	-	-	1	-
Totals, All Ages	231,201	100.0	228,466	98.8	2,648	1.2	20	-	67	-
Average Ages	22.0	-	21.8	-	39.0	-	38.2	-	30.3	-
Median Ages	21.0	-	21.0	-	40.1	-	42.0	-	27.4	-
Grooms										
Under - 15	36	-	36	-	-	-	-	-	-	-
15 - 19	31,147	13.5	31,088	13.8	54	1.2	-	-	5	8.3
20 - 24	98,091	42.5	97,780	43.2	283	6.1	23	7.4	5	8.3
25 - 29	66,689	28.9	66,388	29.4	242	5.2	45	14.6	14	23.3
30 - 34	18,981	8.2	18,569	8.2	354	7.6	54	17.5	4	6.7
35 - 39	6,874	3.0	6,298	2.8	520	11.2	47	15.2	9	15.1
40 - 44	3,263	1.4	2,589	1.2	627	13.5	43	13.9	4	6.7
45 - 49	1,949	.8	1,344	.6	573	12.3	27	8.7	5	8.3
50 and over	4,008	1.7	1,927	.8	1,997	42.9	70	22.7	14	23.3
Totals, Stated Ages	231,038	100.0	226,019	100.0	4,650	100.0	309	100.0	60	100.0
Age Not Stated	163	-	159	-	3	-	-	-	1	-
Totals, All Ages	231,201	100.0	226,178	97.8	4,653	2.0	309	.2	61	-
Average Ages	25.0	-	24.6	-	43.3	-	38.5	-	36.1	-
Median Ages	23.8	-	23.7	-	46.6	-	38.0	-	35.6	-

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

## Marriage by Type of Ceremony

Distribution of marriages by type of ceremony for 1965-1969 is shown in Table V.21. Marriage ceremony may be performed by legal civil authorities and authorities of the Roman Catholic religion, Protestant, Baptist, Iglesia ni Cristo, Seventh Day Adventist, Jehovah's Witnesses and others. During the last five years, 1965-1969 a steady decline in the proportion of religious marriages had been noted. This proportion decreased from 76.1 to 71.9 percent, whereas the proportion of civil marriages rose from 23.9 to 28.1 percent.

Table V.21—DISTRIBUTION OF MARRIAGES BY TYPE OF CEREMONY: 1965 - 1969

Type of Ceremony	1965		1966		1967		1968		1969	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	184,268	100.0	185,921	100.0	189,897	100.0	210,520	100.0	231,201	100.0
Roman Catholic	119,054	64.6	117,318	63.1	118,957	62.6	127,366	60.5	137,314	59.4
Other religious marriages	21,108	11.5	21,641	11.6	21,774	11.5	26,585	12.6	28,835	12.5
Civil Marriages	44,055	23.9	46,947	25.3	49,156	25.9	56,527	26.9	65,033	28.1
Unspecified	51	■	15	■	10	■	42	■	19	■

■ Less than 0.1 percent.

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

### Intermarriages by Nationality

The number of marriages by nationality of bride and groom for 1968 is shown in Table V.22. There were 210,520 couples married, of which 208,311 were both Filipinos, 227 both Chinese, 80 both Americans and 2 both Spanish. Of the remaining 1,615 Filipino brides, 107 chose Chinese grooms, 1,470 American grooms, 4 Spanish grooms, and 34 grooms of other nationalities. As for the 268 remaining grooms, 203 married Chinese brides, 38 Americans, 22 Spanish and 4 brides of other nationalities.

Table V.22—INTERMARRIAGES, BY NATIONALITY: 1968

Nationality of Grooms	Nationality of Bride						
	Total	Filipino	Chinese	American	Spanish	Others	Not stated
Total	<u>210,520</u>	<u>209,926</u>	<u>435</u>	<u>119</u>	<u>24</u>	<u>14</u>	<u>2</u>
Filipino	208,579	208,311	203	38	22	4	1
Chinese	336	107	227	1	-	1	-
American	1,556	1,470	1	80	-	5	-
Spanish	7	4	1	-	2	-	-
Others	41	34	3	-	-	4	-
Not stated	1	-	-	-	-	-	1

Source: Bureau of the Census and Statistics, Demography and Vital Statistics Division.

### INTERNATIONAL COMPARISON OF VITAL STATISTICS

Table V.23 gives a summary of the Philippine national and regional vital statistics along with those of several other countries for 1968. It will be noted that among the countries listed, the low crude death rate of the Philippines (7.5) is improved by Japan's 6.8, Venezuela's 7.1 and Canada's 7.4 and that two of the ten regions have death rates lower than any of the national average of the countries in the list. Union of Soviet Socialist Republic ranks fifth with its rate of 7.7. Like the death rates, the birth rate also shows that the Philippines ranks fourth with its rate of 25.9 as compared to Mexico's 44.3, Venezuela's 43.5 and Chile's 32.0. However, all of the other countries, reported much lower rates of infant mortality, notably Sweden, the Netherlands, Norway, Switzerland, Australia and England with 12.9, 13.4, 14.6, 17.5 and 18.3 respectively, as compared to the Philippines rates of 71.0. As for marriage rate, the Philippines reported 6.1 which is the least among those listed.

Table V.23—PRINCIPAL VITAL STATISTICS RATES OF SELECTED COUNTRIES: 1948

(Note: Countries are ranked according to the highest rates for births, marriages and natural increase and according to the lowest for deaths.)

Country or Region	Births		Deaths		Infant Mortality		Maternal Mortality		Marriages		Natural Increase	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Australia	20.0	9	9.1	10	13.3	5	a/ 3.3	9	3.8	5	10.9	8
Austria	17.1	16	13.0	22	25.5	14	b/ 4.2	11	7.6	11	4.1	19
Belgium	14.9	19	12.6	21	23.4	12	c/ 3.0	7	7.2	14	3.0	21
Canada	a/ 17.7	13	a/ 7.4	3	22.0	10	d/ 3.5	10	a/ 8.4	7	a/ 21.3	11
Chile	32.0	3	a/ 10.7	17	a/ 107.1	24	e/ 26.6	22	a/ 7.6	11	5.0	18
England	16.9	17	11.9	20	13.3	5	f/ 2.6	4	8.0	9	5.8	17
France	16.8	18	11.0	18	23.4	8	a/ 3.2	14	7.2	14	7.8	14
Germany Rep. of	b/ 19.7	10	b/ 11.9	20	b/ 22.8	11	a/ 6.9	14	7.3	13	b/ 12.6	6
India	20.3	7	8.2	6	72.8	23	c/ 2.9	6	6.5	17	9.6	12
Ireland	20.9	6	11.3	19	24.4	13	b/ 8.1	15	7.1	15	7.4	15
Italy	17.3	15	9.9	14	32.8	17	a/ 8.6	17	a/ 9.5	2	a/ 6.9	16
Japan	g/ 13.7	21	g/ 6.8	1	g/ 13.3	7	a/ 16.8	20	g/ 7.0	16	g/ 34.7	2
Mexico	44.3	1	g/ 9.6	12	60.7	20	a/ 2.9	6	9.2	3	10.4	10
Netherlands	18.6	12	8.2	6	13.4	2	a/ 2.2	3	8.7	6	13.7	5
New Zealand	22.6	5	8.9	9	18.7	6	a/ 1.8	2	7.7	10	8.0	13
Norway	17.7	13	9.7	13	14.6	3	a/ 21.6	21	6.1	18	13.3	4
Philippines	25.9	4	7.5	4	71.0	22	15.5	15	10.3	10	55.1	1
Manila	68.4		13.3		60.1		19.4		5.3		20.2	
Ilocos and Mountain Province	27.2		7.1		51.9		24.5		6.0		22.4	
Cagayan Valley	31.5		9.1		77.7		12.2		7.6		25.4	
Central Luzon	31.2		7.9		64.1		14.2		7.5		21.4	
Southern Luzon	29.1		7.7		67.6		31.2		4.4		15.4	
Bicol and Masbate	23.3		7.9		70.7		20.2		5.4		8.0	
Western Visayas	16.0		8.0		105.4		28.1		5.1		14.0	
Eastern Visayas	23.0		9.0		82.3		a/ 34.5		4.7		14.2	
Southern Mindanao and Sulu	19.8		5.9		70.0		a/ 8.5		8.1		10.5	
Northern Mindanao	18.1		3.9		70.3		a/ 6.0		7.1		11.8	
Portugal	20.5	8	10.0	15	59.2	19	a/ 1.4	16	6.5	15	3.9	7
Spain	20.5	8	8.7	8	32.0	16	b/ 5.3	13	7.4	12	8.0	13
Sweden	14.3	20	10.4	16	12.9	4	g/ 2.7	5	8.9	4	9.6	12
Switzerland	17.4	14	9.4	11	17.5	15	a/ 9.9	18	a/ 10.3	1	7.8	14
U.S.S.R.	17.3	15	7.7	5	26.5	9	b/ 12.3	19	8.4	7	36.4	1
U.S.A.	17.4	14	9.6	12	a/ 47.5	18						
Venezuela	a/ 17.4	2	a/ 7.1	2	61.4	21						
Yugoslavia	18.9	11	8.6	7								

a/ - 1965  
b/ - 1964

Source: For Foreign Countries - United Nations Publication  
For the Philippines - Bureau of the Census and Statistics, Demography and Vital Division, Central Research Division.

## CHAPTER VI — HEALTH, WELFARE AND SOCIAL SECURITY

The rapid population growth, the growing urbanization and development, the larger number of children and older persons in population — these have all contributed to the need for new concepts and knowledge in health and welfare matters, new approaches and programs as well as improved welfare and health services.

The forces of disease and death acting on the population have been declining significantly through the years so much so that the wide death rate in 1968 is 7.1 per 1,000 population representing a reduction of 15.4 percent from what it used to be ten years ago. This reduction in death rate is noted particularly on the infant and maternal segments of the population, with the corresponding infant mortality rate of 65.5 and maternal mortality rate of 2.1 both per 1,000 live births.

Deaths were mainly due to the communicable diseases which still constitute the country's major disease problem in spite of its relative decline. In 1958, communicable disease accounted for 54.7 percent of all deaths, this had been reduced to 43.3 percent in 1968. Of the leading causes of death during the year 1968, the first three were communicable diseases, namely; pneumonia, respiratory tuberculosis, gastroenteritis and colitis; disease of the heart and bronchitis are the fourth and fifth leading causes. Diseases of the vascular system and malignant neoplasm rank sixth and seventh positions, respectively. The last three in the group are accidents, beri-beri, nephritis and nephrosis.

Some of the factors responsible for the the improvement in the state of health in the Philippines include the improvement in the general environment conditions, increased level of education of the people, improved medical care of the sick, and expanded health services.

The expansion of rural health units, hospitals as well as other health facilities, such as dental clinics, puericulture centers and special disease units, resulted in the increase of specific health services rendered to the Philippine population.

Following are some of the developments made in health services in the country in FY 1969 — 1970:

The Bureau of Health Services participated actively in the Central Luzon Development Program (CLDP), the Mindanao-Sulu-Palawan Development Program (MINSUPALA) and similar other programs; coordinated and supervised the giving of assistance to people in affected areas during disaster such as volcano eruption, fires, floods and typhoons; participated in the various seminars and conferences on Cholera Eradication Program for both Manila Metropolitan Area and Cebu City; improved water supplies and sanitary facilities in health centers and schools, and government hospitals, as well as in the rural area; conducted seminars on food sanitation, refuse collection and disposal, as well as training of sanitary inspectors; conducted emergency sanitation measures like the provision for safe drinking water, sanitary waste disposal and general sanitation in calamity stricken areas caused by fires, epidemics, accidents, floods and atrocities.

To upgrade Rural Health Units and Puericulture Centers, the Division of Maternal and Child Health, WHO-UNICEF-assisted Program distributed rugs and diet supplements to all Rural Health Units, Puericulture Centers and other charitable institutions.

The Division of Industrial Hygiene made investigations of industrial hazard and exposure to toxic substances of various industrial and commercial establishments throughout the country. Researches were made to determine the incidence of any form of cancer in occupation of worker, irrespective of age and sex; that is, to determine if occupation offers a causative factor in the formation of cancer. Likewise, a study to determine whether carbon monoxide coming from the exhausts of motor vehicles is of such concentration as to endanger the health of the people in areas where traffic is heavy was also undertaken.

The Division of Nutrition, planned, organized, and conducted UNICEF assisted Nutrition Training Seminars for health personnel in the national, regional, provincial, city and municipal levels.

On the other hand, the Bureau of Medical Services made an extensive survey of inspection of hospitals, both government and private, in provinces of Mindanao and Visayas. To provide adequate medical care for the greatest number of population especially in rural areas, various efforts were made toward planning and programming of hospitals. Programs include Hospital Licensure, Hospital Standardization, Hospital Consultation and Advisory Services.

The 5-year Hospital Development program was launched for the purpose of improving the hospital system through proper planning and programming of hospital facilities in the Philippines to insure safe patient care and to provide adequate service to all population.

Under this program, planning and programming of hospitals has been subject to priorities such as: 1) expansion and improvement of existing hospital facilities, 2) establishment of new hospitals to be determined by actual need of the population, 3) establishment of hospitals under the R.A. No. 4226. To help in funding the programs necessary legislation is being pushed through the Congress.

The activities undertaken by the Division of Tuberculosis, Bureau of Disease Control, during the same fiscal year included case findings by direct sputum microscopy; case finding and diagnosis by X-ray; ambulatory chemotherapy and case supervision, BCG vaccination and assessment, and direction and supervision of health education.

To promote the modern concept of leprosy and to erase the stigma associated with the disease, an intensive and nationwide education program was launched by the Division of Sanitaria. Implementation of the 5-year program for the Expansion of the Rehabilitation phase of the Leprosy Control Service was started. Survey of the rehabilitation need of leprosy patients at the Central Luzon Sanitarium and Leprosy Research and Training Center was also conducted.

On the other hand, the Division of Social Hygiene coordinated technical activities of the 21 Venereal Clinics with the local health departments.

In cooperation with WHO Consultants on Cancer and the Philippine Cancer Society, the Division of Cancer organized National Committee on Clinical Oncology to take care of the Clinical aspects of the Research Division of the National Council for Cancer Control. The NCCC is composed of cancer thermotherapists, radiotherapists, and cancer surgeons from the different institutions in the greater Manila Area.

A Memorandum of Agreement between the Department of Health and the City of Manila for the comprehensive care of the mentally ill was signed by the Secretary of Health and by the Mayor of Manila.

The Division of Mental Hygiene has also launched the In-Service Training Program for social workers and allied personnel at the National Mental Hospital.

The Division of Filariasis conducted filariasis survey of laborers in lumber and mining companies in Bicol region, Sorsogon, Eastern Samar, and Northern Leyte. Domestic animals were also surveyed and examined for the presence of animal filariasis and the possibility of animal reservoirs of human filariasis.

Another development in the health and welfare services of the Philippines in the same fiscal year was the adoption of a Medical Care Plan which aims to realize the sole goal of meeting the total health needs of the people in the entire country. The medical care act has three main objectives, namely (1) extension of medical care to all residents in an evolutionary way within the country's economic means and capacity as a nation; (2) providing the people of the country a practical means of helping themselves pay for adequate medical care; and (3) establishing a Medical Care Commission. The Medical Care Plan to be carried out by the Commission consists of two programs: Program I which covers members of the GSIS and SSS and Program II which covers the rest of the population.

The former takes effect upon the approval of the Act and the latter shall be implemented in a manner and time to be determined by Congress upon recommendation of the Commission.

## NATIONAL HEALTH ACTIVITIES

National government bears the major responsibility for health in the Philippines and has jurisdiction over a number of health matters as well as provides important financial assistance to provincial health and hospital service. All levels of government are aided and supported by a network of various voluntary agencies working in different health fields.

The Department of Health is a national government agency responsible for health activities which include public health, disease preventive, curative, and rehabilitative programs, health and medical education services, and proper enforcement of the laws and regulations relative to health, sanitation, food, drugs and narcotics.

The Department exercises executive supervision over the Bureau of Health Services, Bureau of Medical Services, Bureau of Disease Control, Bureau of Quarantine, Bureau of Dental Health Services, Bureau of Research and Laboratories, Health Project Office on Maternal and Child, Malaria Eradication Service, Disease Intelligence Center, National Nutrition Project, Food and Drug Administration, National Schistosomiasis Control Commission, the Health Department of chartered cities, the national, provincial, city and municipal hospitals, dispensaries and clinics, except the Philippine General Hospital, the public market and slaughterhouses; hotels, restaurants, and other food establishments; health resorts and similar establishments.

To carry out the very purpose for which this department was established, the Office of the Administrative Services serves to give advices and recommendations to the Secretary of Health on matters relating to administrative services, establishes administrative standards, regulations, administrative procedures, gives consultative and technical services in administrative and legal matters to the Regional Offices for organization and procedure improvements, plans a coordinate control program for the Department designed to provide top management of the information necessary to evaluate administrative performance, and also provides effective internal control to prevent irregularity.

### Environmental Health

The control of factors in the environment that are harmful to health is a growing concern of public health. Air pollution, water pollution and the use of pesticides have become major problems. The Stream and Air Pollution Control Unit of the Department of Health has the responsibility for all aspects of public water supply, sewerage system, stream and air pollutions.

The Water Analysis Unit, one of the three participating water laboratories of the Bureau of Health Services, regularly performs bacteriological examination on 48 split samples from different sampling points gathered by the NAWASA (National Waterworks Sewerage Authority) main laboratory to provide adequate cross-checking of techniques and results of analysis on the city water supply. The unit also regularly examines water from different sources for palatability and fitness for human consumption as well as for industrial and commercial purposes.

### Maternal and Child Health

Consultative and advisory services are rendered by the Division of Maternal and Child Health (MCH) of the Health Services in the organization and operation of puericulture centers, health clinics and school health services in all aspects of maternal and child health.

Public health nurses employed by Regional Health Office carry out preventive health services to mothers, newborns, and children through clinics, home visits, and hospital and school health services. National Comprehensive MCH-Family Planning Office of the Department of Health undertakes studies in Maternal and Child care, including problems of family planning, fertility, sterility, etc.

The Department of Health's Projects Office for Maternal and Child Health (POMCH) which has been carrying out its assigned task and responsibility for the financial support of the Maternal and Child Care was created in October 1968, by virtue of a Project Agreement executed by and between the U.S. government represented by the AID Mission Office in the Philippines, and the Philippine Government, by the National Economic Council.

Originally, there were ten aided institutions and agencies, and eight more were added for the fiscal year 1969-1970. Monetary assistance was similarly, increased from \$1.1 million for the last fiscal year's record to \$1.4 million for fiscal year 1969-1970. This development also generated the increase in the number of operational family planning clinics from 177 to 201.

The following are the agencies with their corresponding allocations.

<i>Agency/Institution</i>	<i>Total Budget</i>
1. Angeles City Health Department (ACHD)	\$ 1,100.00
2. Asian Social Institute (ASI)	44,095.00
3. Davao City Health Department (DCHD)	14,700.00
4. Institute of Maternal and Child Health (IMCH)	466,465.00
5. Manila City Health Department (MCHD)	7,650.00
6. Province of Laguna (POL)	24,331.00
7. Silliman University Medical Center (SUMC)	78,590.00
8. U.P. College of Medicine (UPCM)	84,431.00
9. U.P. Institute of Hygiene (UPIH)	7,565.00
10. U.P. Population Institute (UPPI)	55,097.00
11. Institute of Philippine Culture (IPC)	12,335.00
12. National Land Reform Council (NLRC)	11,795.00
13. Philippine Rural Reconstruction Movement (PRRM)	41,475.00
14. Social Communication Center (SCC)	200,000.00
15. Office of Health Education & Personnel Training, Department of Health (OHEPT)	12,000.00
16. U.P. College of Medicine Reproductive Biology (UPCM—RB)	27,558.00
17. Project Office for Maternal & Child Health (POMCH)	68,289.00
18. Department of Education of Family Planning Organization of the Philippines (DOE/FPOP)	5,637.00

## Occupational Health

Services designed to prevent accidents and occupational disease and to maintain the health of employees are the concern of Regional Health Office, Labor Department, Workmen's Compensation Commission, and Industrial management. Regional Health agencies regulate working conditions and offer consultant and educational services to industry. Legislations such as the Workmen's Compensation Act has set standards for health safety and accident prevention on the job. Many industrial entities conduct studies on industrial health problems such as effects of noise and air condition on workers.

## Nutrition

The Division of Nutrition of the Bureau of Health Services carries out the policies for procurement, installation and operation of rice enrichment, and the recommendations on medical nutrition with special reference to beri-beri, iron deficiency, anemia; conducts research studies on rice; encourages the manufacture and distribution of enriched rice and laboratory analysis of sample of premix rice.

Provincial and some city health offices employ consultants in nutrition to extend technical guidance and education to health and welfare agencies, other care institutions and hospitals. The National Nutrition Program office under the Department of Health which was constituted under a bilateral agreement and in cooperation with Nutrition Research Institute provides diet counselling to selected patient groups and conducts nutritional survey and other research.

## **Food and Drug Control**

The provisions of the Food, Drug and Cosmetics Act, administered by the Food and Drug Administration of the Department of Health, apply to the manufacturing, advertising, packaging and sale of foods, drugs, cosmetics, and medical devices anywhere in the Philippines. Wide powers are authorized under this legislation to maintain the safety, purity, and quality of food and drug products and to prevent misrepresentation in labelling and advertising.

Standards of safety and purity are developed through laboratory research and are maintained through constant and widespread inspection. The Inspection and Licensing Division is responsible for the inspectional and licensing activities of the office.

The Food and Drug Administration is also responsible for the integration of scientific research, development activities and certification services.

## **Malaria Eradication Services**

The Malaria Eradication Service is charged with the protection of the people of the Philippines from Malaria. It is responsible for the eradication of Malaria. It adopts measures which relate to the spraying of buildings and other premises with insecticides, malaria survey, medical examination of the people, treatment of persons suffering from malaria, as well as delimitation of malarious and non-malarious areas.

## **Dental Health**

Increasing emphasis has recently been given to dental care. Dental clinics conducted by the local health services are often restricted to pre-school and younger school age groups. The Bureau of Dental Health Services is responsible for the coordination, control and supervision of all dental health services in the government except those of the Armed Forces of the Philippines and of dental infirmaries for the training of dental health students in dental schools and colleges and those under the Department of Education. The Bureau also supervises dental health services in private firms, companies and corporations and private educational institutions.

The Rural Dental Health Division of the Bureau of Dental Health Services under the Office of the Undersecretary for Special Health Services provides preventive and control measures in rural areas of diseases of the teeth and its surrounding tissues.

## **Other Medical Services**

All vessels, aircraft and other conveyors and their crews and passengers arriving in the Philippines from foreign countries are inspected by quarantine officers to detect and correct conditions that could lead to the entry into the Philippines of such diseases as small pox, cholera, plague, yellow fever, typhus and relapsing fever. The Bureau of Quarantine conducts the medical examination of all applicants for immigration to the Philippines. There are ten provincial quarantine stations in the Philippines which are located at all major seaports and airports.

## **MENTAL HEALTH SERVICES**

The National Mental Hospital is responsible for mental health services in the country. It is headed by a director, usually a psychiatrist, and one or more consultants in psychiatric nursing, clinical psychology, social work, occupational therapy or special education and also one or more psychiatrists specializing in pediatrics, geriatrics, mental retardation, alcoholism, and drug addiction or other related fields. As public health officer, the mental health director is responsible for the development of programs aimed at the prevention of mental disease and for the general promotion of mental health, this is also done in cooperation with welfare, education, manpower, labor and justice departments. As a psychiatrist, he is responsible for the development and supervision of the various health facilities for the treatment of peo-



ple who suffer from mental or emotional disorders including disorder of characters, and behavior, of the mentally retarded, of people with damage to the nervous system, of alcoholics and of drug addicts.

Special centers are being established for the study and treatment of drug addiction, criminal psychopathy, psychiatric disorder in children, brain injuries and other neurological disorder.

The continuing efforts by the Department of Health to provide more and better health services reflect growing enlightenment about mental health on the part of the profession, the general public, and the government agencies. Improvement in the care of psychiatric patients has been fostered by activities of voluntary organizations such as the Philippine Mental Health Association, Philippine Association for the Mentally Retarded; by the professional advice of the Philippine Medical Association and the Philippine Psychiatric Association; the professional training and scientific research; and through the information programs of the Mental Hygiene Division of the Bureau of Disease Control.

## PROVINCIAL AND LOCAL HEALTH SERVICES

Provincial governments are mainly responsible for the various health measures undertaken to prevent disease and improve the health standards of the community. These comprise the preventive health services and special treatment services usually administered by the provincial health departments or other official agencies in cooperation with hospital and voluntary organizations.

Although the pattern of services is similar, provincial health organization, financing and administration vary to some degree. Most health functions are exercised by provincial health departments and sometimes by voluntary organizations which provide specialized health services.

In general, the provincial health departments carry out over-all planning and direction of public health programs, administer some specialized health programs and assist regional or country health units and city health departments that have been delegated responsibility for the basic public health services. In most provinces, the Rural Health Unit system which serves mainly rural areas, are operated either jointly by the province and the local authority with the local authority having jurisdiction over the city, municipality, or larger area. The nucleus staff of a local health unit or department is composed of a part-time medical officer of health, a number of public health nurses and public health inspectors. More recently, health units in most provinces have started family planning clinics.

Local provincial programs to safeguard community health are concerned with environmental sanitation to ensure safe water, milk and food, prevention and control of infectious diseases through use of vaccines and prophylactics, improvement of maternal and child health and dental health, registration of vital statistics, and health education and counselling.

## SERVICES FOR SPECIFIC DISEASES OR DISABILITIES

### Tuberculosis

The number of new active cases of tuberculosis in the Philippines slightly increased in 1968 to 28,097 per 100,000 population while death dropped to 11.1 percent. Regional Health Offices conduct community tuberculosis testing and X-ray surveys, hospital admission X-ray and arrested cases. BCG vaccine is used in most places to protect certain high-risk group.

Respiratory tuberculosis remains the second leading cause of deaths in the country while pneumonia still ranked number one among the ten leading causes of death for a 5-year average in 1963-67 as well as in 1968.

## Cancer

Deaths from cancer accounted for 3 percent of the total deaths in the country. It ranked number seven among the ten leading causes of deaths in the Philippines in 1968. Four Filipinos die of cancer every five hours, or approximately 20 persons die per day. Buccal cavity and pharynx are leading sites of cancer in the country. In mortality statistics, however, liver is the leading site followed closely by stomach, buccal cavity and pharynx. Cancer of the nasopharynx is prevalent among the Chinese. However, records show there are also many Filipinos affected by this disease.

The Philippine Cancer Society in cooperation with the Division of Cancer of the Bureau of Disease Control of the Health Department carries out cancer detection and treatment, public education, professional training and research in coordination with the local health services and physicians.

## Venereal Diseases

Public authorities consider the real incidence of syphilis and gonorrhea to be much higher than the official rates due to under-reporting. Health departments in all provincial social hygiene clinics administer diagnostic and treatment services. In areas lacking such clinics, private physicians provide medical treatment.

The Division of Social Hygiene Bureau of Disease Control helps develop plans, programs, policies, operational procedure and other technical aspects related to the prevention and control of venereal disease particularly syphilis and gonorrhea as well as providing consultative and recommendatory services for the guidance of operating entities in the management of clinical and laboratory facilities, operation of all provincial social hygiene clinics, diagnosis and treatment of patients and follow-up of contacts as well as examination and treatment of pre-natal venereal disease case.

## HOSPITALS

Total appropriation for hospitals in FY 1969-70 amounted to ₱97.4 million of which national aid represents ₱79.8 million or 81.9 percent, local aid ₱11.7 million or 12.01 percent, and hospital services ₱5.9 million or 6.1 percent.

Of the total appropriation, total expenditures for hospitals under the Department of Health excluding leprosaria amounted to ₱78.6 million. Expenditures of 8 leprosaria accounted for ₱8.2 million, and the remaining ₱10.6 million were expended for other government hospitals.

Based on total appropriations for all hospitals under the Department of Health with maximum occupancy showed an estimated daily average cost per bed of ₱13.53. However, based on expenditure of all hospitals under the Department of Health to total patient days showed an actual average cost per patient of ₱14.36. Actual average cost per patient per day, based on expenditures of leprosaria, showed a much lower rate of approximately ₱4.88.

## Hospital Statistics

Hospitals operating in the Philippines are classified for statistical purpose, according to 1) type of ownership, which can be public, or private and 2) type of service provided, which can be general, allied special (rehabilitation, maternity, communicable disease and orthopedic) mental or tuberculosis. Public hospitals are further classified into two types; firstly, those hospitals under the jurisdiction of the Department of Health such as Medical Centers, Regional Hospitals, other designated Training and Teaching Hospitals, Special hospitals, other provincial hospitals and emergency hospitals; and secondly, other government hospitals not under the Department of Health, which include those under the Office of the President, Department of National Defense and Department of Justice.

Public hospitals aside from privately owned hospitals include Tuberculosis Pavilion under the Philippine Tuberculosis Society and the Philippine Cancer Society.

Under the five-year Hospital Development Program of the Department of Health, hospitals have been classified as follows:

1. *Medical Centers*, one each for (a) Northern Luzon, (b) Central Luzon and the Bicol provinces, (c) Visayas, and (d) Mindanao and Sulu. These Medical Centers are designed, equipped and staffed to provide specialty care beyond the capabilities of the provincial hospitals, and are strategically situated to serve a service area. These centers provide opportunities for training and teaching as well as for research in the specialties;
2. *Regional Hospitals*, one each for the 8 health regions. These regional hospitals provide care at a level between the provincial hospitals and the Medical Centers and are to be developed into Medical Centers for each of the 8 health regions as the need develops and the specialties become available. These hospitals also provide teaching and training and potentials for research;
3. *Training and Teaching Hospitals*. These hospitals provide definitive care of the provincial hospital level augmented by consultants who have dual responsibilities for medical care at specialty level and residency training, as provided by R.A. 2251. These hospitals shall be developed also into teaching hospitals for undergraduate medical students, through affiliation with private medical and para-medical schools, as well as for personnel of the different hospitals under the Department of Health;
4. *Provincial Hospitals*. These hospitals are staffed to provide definitive care in each of the four basic specialties of medicine, surgery, obstetrics and gynecology and pediatrics, plus the provision of auxiliary services such as X-ray, laboratory and anaesthesia, regardless of the number of beds. They shall also provide sufficient nursing staff to support the specialties; and
5. *Emergency Hospitals*. These hospitals are situated where the provincial hospital is not easily accessible for emergency cases. In remote places, they also provide definitive care as in the provincial hospitals.

The number of hospitals operating in the Philippines increased from 695 in FY 1968-69 to 737 hospitals in FY 1969-70 or an increase of 5.90 percent resulting in an increase in total bed capacity from 43,622 to 54,589.

Of the total 737 hospitals in FY 1969-70, government owned hospitals accounted for 243 hospitals or 33 percent while private hospitals accounted for 494 hospitals or 67 percent. Of the total government hospitals 206 were under the Department of Health while 37 were other government hospitals not under the Department of Health, and the remainder, 494 hospitals were private hospitals.

Compared with the previous fiscal year, the number of private hospitals increased from 481 in FY 1968-69 to 494 in FY 1969-70 resulting to an increase in bed capacity to 21,068 beds from 20,470 (See Table VI.1).

Table VI.1 - NUMBER AND BED CAPACITY OF OPERATING GOVERNMENT AND PRIVATE HOSPITALS IN THE PHILIPPINES:  
FY 1965 - 66 TO FY 1969 - 70

Fiscal Year	T o t a l		Bed Population Ratio	H o s p i t a l					
	Number	Bed Capacity		Under the Depart- ment of Health <sup>1/</sup>		Other Government <sup>2/</sup>		Private <sup>3/</sup>	
				Number	Bed Capacity	Number	Bed Capacity	Number	Bed Capacity
1965-66	454	41,683	1:772	149	17,700	31	13,020	274	10,963
1966-67	677	47,811	1:711	165	18,215	32	12,442	480	17,094
1967-68	682	41,552	1:717	175	18,373*	29	4,527	478	18,650
1968-69	695	43,622	1:719	185	18,625*	29	4,527	481	20,470
1969-70	737	54,589	1:678	206	19,625*	37	5,826	494	21,068

1/ Composed of Medical Centers, Regional Hospitals, other designated Training and Teaching Hospitals, Special Hospitals, Other Provincial Hospitals and Emergency Hospitals.

2/ Include those under the Office of the President, Department of National Defense, Department of Justice.

3/ Other private hospitals aside from private - owned hospitals are the Tuberculosis Pavillion under the Philippine Tuberculosis Society and the Philippine Cancer Society.

\* Excluding eight (8) Leprosaria with 8,070 bed capacity.

Source: Department of Health, Bureau of Medical Services Annual Report FY 1965-1966 to 1969-1970.

## Admission to Government Hospitals

Health services, like free routine examination as well as medical, surgical, obstetric and other cases are taken care of in government hospitals. A large number of private hospitals in the Philippines also carry free wards for indigent cases that can no longer be absorbed by the government hospitals.

Total adult and child admission to operating government hospitals under the Department of Health excluding Leprosaria showed a decrease from 647,692 in FY 1968-69 to 425,128 in FY 1969-70. This can be attributed to the reduction in the number of medical cases admitted which declined to 131,790 in FY 1969-70 from 221,698 during the previous year, surgical cases which declined to 51,016 from 200,534, and other cases to 8,502 from 11,389. However, there was an increase in the number of pediatric and obstetric cases admitted.

In fiscal year 1970-71, there was an increase in the number of patients admitted. Of the total 556,081 patients in FY 1970-71, medical cases accounted for the bulk numbering 168,716, followed by obstetric and pediatric cases, 159,063 and 148,527, respectively.

The average length of the stay of adults and children admitted to government owned hospitals was 5.1 days in FY 1970-71 as against an average length of stay of 5.5 days during the previous fiscal year.

Table VI.2 - MOVEMENTS OF PATIENTS AND PATIENTS' DAYS IN OPERATING GOVERNMENT HOSPITALS IN THE PHILIPPINES: FY 1965-66 TO 1970-71

Category	(Hospitals under the Department of Health)					
	1965 - 1966	1966 - 1967	1967 - 1968	1968 - 1969	1969 - 1970	1970 - 1971
Total number of out-patients treated	1,713,309	6,011,392	7,212,480	7,934,642	2,021,797	3,461,044
Total number of patients admitted	673,604	692,882	945,350	647,692 <sup>a/</sup>	425,128 <sup>b/</sup>	556,081 <sup>b/</sup>
Medical cases	234,732	205,132	275,083	221,698	131,790	168,716
Surgical	122,682	198,112	261,849	200,534	51,016	68,654
OB - Gyne	96,938	117,058	171,364	111,358	123,287	159,063
Pediatric cases	164,729	110,477	148,357	102,713	110,533	148,527
Other cases	54,523	62,112	88,697	11,389	8,502	11,121
Average length of stay (in days)	-	-	5.5	5	5.5	5.1
Average bed occupancy rate	-	-	77%	78%	76%	82.78%
Number of patients admitted (Leprosaria)	-	-	-	5,024	1,176	1,242

a/ Excluding National Mental Hospital.

b/ Excluding Leprosaria.

Source: Department of Health Annual Report FY 1965-1966 to 1970-1971.

Table VI.3 shows the comparative number of personnel employed in the Philippines government hospital under the Department of Health in FY 1965-1968 and FY 1970-1971.

Number of personnel employed in government hospital showed a slight increase of 3.07 percent from 13,219 in FY 1965-66 to 13,626 in FY 1970-71.

While the number of nurses increased to 3,206 in FY 1970-71, from 2,737 in FY 1965-66, the number of part-time and full-time physicians decreased to 1,963 from 2,066. This reduction in the number of part-time and full-time physicians can be attributed to the exodus of talents of the land, "brain drain," particularly in the medical field. The fact stands out that these talents are lured out of the country by the greater material compensation as well as opportunities for professional growth and advancement that other countries such as the U.S. and Canada can readily offer.

In Fiscal Year 1970-71, there were a total number of 1,963 part-time and full-time physicians in 217 government hospitals under the Department of Health giving an average of 9 physicians per hospital and a total of 3,206 nurses or an average number of 15 nurses per hospital. This would represent a ratio of one physician for every 10 beds and one nurse for every 6 beds. These ratios and averages for the Philippines show the need for more hospitals, more nurses and physicians who are properly trained to staff these hospitals.

While most of the private hospitals operating in the Philippines have almost attained the ideal conditions existing in more developed countries, government hospitals presently existing in the Philippines are understaffed and overcrowded.

Table VI.3 - NUMBER OF PERSONNEL EMPLOYED IN PHILIPPINE GOVERNMENT  
HOSPITALS UNDER THE DEPARTMENT OF HEALTH;  
FY 1965-1966 AND 1970-1971

Personnel	1965 - 1966		1970 - 1971		Percent Increase/ Decrease
	Number	Percent	Number	Percent	
Total	<u>13,219</u>	<u>100.00</u>	<u>13,626</u>	<u>100.00</u>	<u>3.07</u>
Physicians (Part time & Full time)	2,066	15.63	1,963	14.41	(4.98)
Nurses	2,737	20.71	3,206	23.53	17.13
Nursing Attendants	-		2,413	17.71	
Dentists	168	1.27	135	0.99	(19.64)
Dental Aides	-		33	0.24	
Pharmacists	204	1.54	237	1.74	16.18
Pharmacy Aides	-		13	0.10	
Dietician	161	1.22	172	1.26	6.83
Medical Technicians	-		267	1.96	
X-Ray Technicians	-		139	1.02	
Laboratory Technicians	-		115	0.84	
Administrative Officers	-		131	0.96	
Engineers	-		12	0.09	
Midwives	88	0.66	97	0.71	10.23
Med-Social Worker	-		98	0.72	
Institution Workers	-		525	3.85	
Ward Service Workers	-		207	1.52	
Drivers	-		74	0.54	
All others	7,795	58.97	3,789	27.81	(51.39)

Source: Department of Health, Bureau of Medical Service.

## NOTIFIABLE DISEASE

During the period from 1963 to 1968, influenza ranked number one among the ten leading causes of morbidity in the Philippines. Gastro-enteritis and colitis occupied the second and third positions, respectively, attacking both infants and adults. Respiratory tuberculosis ranked fourth in the list.

Influenza cases averaged 174,060 during the five-year period from 1963 to 1967 or an average rate of 537.2 per 100,000 population. In 1968, influenza cases showed a much higher figure numbering 336,143 or 967.9 per 100,000 population based on 34,726,000 population (See Table VI.4).

The leading causes of morbidity for each region in 1968 is shown in Table VI.5. Out of the eight Health Regions of the country, influenza and bronchitis rank first and second respectively in three regions; namely Region I, III, and V. On the other hand, bronchitis ranks first in four Regions, namely; Region II, VI, VII, and VIII.

It was only in Region No. IV where gastro-enteritis, colitis occupies the first position among ten leading causes of morbidity in the country.

Table VI.4 - TEN LEADING CAUSES OF MORBIDITY: 5-YEAR AVERAGE (1963-1967 AND 1968)  
(Rate per 100,000 estimated midyear population)

Cause	5-Year Average (1963-1967)		1968	
	Number	Rate	Number	Rate
Total Population	31,795,000 <sup>a/</sup>		34,736,000	
Influenza	174,060	547.4	336,143	967.9
Bronchitis	265,117	833.8	289,026	832.3
Gastro-enteritis colitis	207,603	652.9	179,129	515.8
Respiratory Tuberculosis	114,326	361.4	122,762	352.0
Pneumonias	74,360	232.9	77,861	224.2
Malaria	33,707	106.0	28,554	81.6
Whooping Cough	22,888	71.9	22,250	64.0
Measles	17,259	54.2	19,555	56.3
Dysentery, all forms	18,721	58.8	19,072	54.9
Beri-beri	34,103	107.2	16,552	47.6

a/ Average population 1963-1967

Source: Department of Health, Disease Intelligence Center.

Table VI.5 - TEN LEADING CAUSES OF MORBIDITY FOR EACH HEALTH REGION: 1968  
(Rate per 100,000 estimated Mid-Year Population)

Region I			Region II		
Causes	Number	Rate	Causes	Number	Rate
Influenza	37,568	1,095.6	Bronchitis	17,346	1,276.4
Bronchitis	28,189	822.1	Influenza	16,553	1,218.0
Gastro-enteritis and colitis	21,884	638.1	Malaria	9,663	711.0
Respiratory Tuberculosis	8,623	251.5	Gastro-enteritis and Colitis	6,975	513.2
Pneumonias	6,420	187.2	Respiratory Tuberculosis	5,432	399.7
Dysentery, all forms	2,512	73.2	Pneumonias	3,855	280.0
Malaria	2,420	70.6	Beri-beri	1,554	114.3
Measles	2,419	70.5	Measles	624	45.9
Beri-beri	1,604	46.8	Dysentery, all forms	609	44.8
Whooping cough	2,512	73.2	Whooping cough	532	39.1
Region III			Region IV		
Influenza	152,435	1,423.4	Gastro-enteritis and colitis	17,774	567.3
Bronchitis	88,352	824.8	Bronchitis	16,739	536.2
Gastro-enteritis and colitis	58,200	543.3	Influenza	14,655	467.8
Respiratory Tuberculosis	46,354	428.6	Respiratory tuberculosis	11,231	358.5
Pneumonia	25,846	241.2	Pneumonia	6,848	218.6
Malaria	8,521	80.2	Whooping cough	1,819	58.0
Conococcal Infection	7,314	68.3	Dysentery, all forms	996	31.8
Whooping cough	6,520	60.2	Measles	943	30.1
Measles	6,488	60.6	Beri-beri	683	21.8
Malignant Neoplasm	4,046	37.8	Malignant Neoplasm	566	18.1
Region V			Region VI		
Influenza	27,560	677.5	Bronchitis	35,493	590.3
Bronchitis	21,815	610.0	Influenza	33,516	557.4
Gastro-enteritis and colitis	10,345	251.8	Gastro-enteritis	25,022	416.1
Respiratory Tuberculosis	10,312	251.0	Respiratory Tuberculosis	19,532	324.6
Pneumonias	6,863	169.7	Pneumonias	14,265	237.2
Measles	2,568	63.1	Whooping cough	5,529	92.0
Whooping cough	2,338	58.0	Dysentery, all forms	3,520	58.5
Dysentery, all forms	2,312	56.8	Measles	2,325	48.6
Beri-beri	1,003	24.6	Beri-beri	1,301	31.6
Malignant Neoplasm	795	19.5	Malignant Neoplasm	1,460	24.3
Region VII			Region VIII		
Bronchitis	23,297	776.6	Bronchitis	54,727	1,313.4
Influenza	21,017	700.6	Influenza	32,779	786.4
Gastro-enteritis and Colitis	14,608	486.9	Gastro-enteritis and Colitis	24,421	585.9
Respiratory Tuberculosis	8,203	273.4	Respiratory Tuberculosis	12,052	289.2
Pneumonias	4,735	157.8	Pneumonias	9,079	217.8
Beri-beri	3,226	100.9	Dysentery, all forms	4,962	119.6
Malaria	3,068	102.3	Malaria	3,210	93.8
Measles	2,526	84.9	Measles	2,042	49.0
Whooping cough	1,265	42.2	Whooping cough	2,687	64.5
Dysentery, all forms	1,920	64.0	Beri-beri	3,514	84.3

Source: Department of Health, Disease Intelligence Center.

Table VI.6 presents death from all causes by age, sex and percentage distribution for the year 1968. For both sexes, total number of death was 253,841 with males accounting for higher proportion approximately 141,730 or 55.8 percent as against female 112,111 or 44.2 percent.

Children dying under one year of age accounted for the highest number of death in 1968, accounting for 62,994 or 24.8 percent of the total deaths, followed by 70 years old and over accounting for 17.5 percent, and one to four years of age accounting for 16.7 percent.

The same pattern follows for female sex, where death under one year old accounted for 23.8 percent followed by 70 years old and over, 20.1 percent and one to four years old, 17.6 percent. Among males, death under one year old was the highest, numbering 36,350 or 25.6 percent followed by one to four years old-22,596 or 15.9 percent. Seventy and over accounted for 21,729 or 15.3 percent of the total deaths in the same year.

Table VI.6 - NUMBER AND PERCENTAGE DISTRIBUTION OF DEATHS  
FROM ALL CAUSES BY AGE AND SEX: 1968

Age	Number of Deaths			Percentage Distribution		
	Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	253,841 =====	141,730 =====	112,111 =====	100.00 =====	100.00 =====	100.00 =====
Under 1 year	62,994	36,350	26,644	24.8	25.6	23.8
1 - 4	42,329	22,596	19,733	16.7	15.9	17.6
5 - 9	12,247	6,943	5,304	4.8	4.9	4.7
10 - 14	5,394	3,139	2,255	2.1	2.2	2.0
15 - 19	5,044	3,055	1,989	2.0	2.2	1.8
20 - 24	6,257	3,902	2,355	2.5	2.8	2.1
25 - 29	6,862	4,140	2,722	2.7	2.9	2.4
30 - 34	7,406	4,355	3,051	2.9	3.1	2.7
35 - 39	7,329	4,203	3,126	2.9	3.0	2.8
40 - 44	7,303	4,220	3,082	2.9	3.0	2.8
45 - 49	7,851	4,678	3,173	3.1	3.3	2.8
50 - 54	8,472	5,070	3,402	3.3	3.6	3.0
55 - 59	9,037	5,422	3,615	3.6	3.8	3.2
60 - 64	9,451	5,395	4,056	3.7	3.8	3.6
65 - 69	10,547	6,065	4,482	4.2	4.3	4.0
70 yrs. & over	44,541	21,729	22,812	17.5	15.3	20.4
Not Stated	777	468	309	0.3	0.3	0.3

Source: Department of Health, Disease Intelligence Center.



## WELFARE AND SOCIAL SECURITY

Responsibility for social welfare is shared by all levels of government. However, the Department of Social Welfare is generally responsible for national welfare matters.

The Department of Social Welfare provides a comprehensive program of social services for individuals and groups in need of assistance. Its responsibilities include supplementary material assistance and/or limited cash to disaster victims, the sick, aged, orphaned, handicapped, unemployed, and other destitute persons; provisions of limited employment and vocational training to employable persons on relief through self-help projects which are financially and technically assisted by the SWA to start them off for economic self-sufficiency; transportation aid to families or persons whose economic and social adjustment may be improved by such; cash aid to victims of dissident operations as provided for by laws; residential care and training of beggars and homeless aged citizens; resettlement, housing and other welfare services to ejected squatters as well as those facing ejection in cooperation with the PHHC and other government agencies; medical assistance and social services to destitute sick clients; casework with families with social, emotional and other adjustment problems.

Aid to Families in Economic Distress (AFED) and General Assistance (GA) were the two major assistance programs launched by the Social Welfare Department in 1968 serving 11,419 families. Almost P2 million was spent in grants of this type at the rate of P92.35 and P50.00 respectively per family. Assistance in AFED and GA was mostly distributed to urban areas of Region III including Manila, Cavite, Rizal and Quezon City since these places needed most this aid.

In addition, sixteen new community centers, two extension youth centers and five-day care-nurseries were set up in 1968 to add to the community centers and two-day nurseries previously established. Of these centers, three became demonstration community centers where new methods and techniques are tested before they are accepted for general use. Some 12,000 families were reached through community service during this year.

The Department of Social Welfare has also tremendously extended huge help by means of various programs aimed to alleviate present upsurge of juvenile delinquency. In 1968, some 8,403 children were helped and served, with programs as follows: 1) Programs for Children with Special Need which include day care for mentally and physically handicapped children; the National Center for Disabled Children; the National Center for Emotionally Disturbed Children; 2) Programs for Protective Services such as temporary shelters and services to unwed parents and their children; 3) Programs for Child Care and Placement covering Foster Care, Adoption and Legal Guardianship; 4) Programs for Delinquent Minors which include probation and after care, detention homes half-way homes and the national training centers; 5) Programs for student and Special Youth Groups. These include direct student loan projects and pre-vocational training and/or on-the-job training projects.

The Department of Social Welfare has also initiated Vocational Rehabilitation of the Disabled and Special Group to keep up with the government's desire for the physically handicapped people to utilize their remaining potential capacities for more beneficial things. In FY 1967-68, a total of 6,769 multi-disability cases were served giving lucrative employment to 391 persons.

In its efforts to create a better living for these disabled groups the government requested for technicians from the Japanese government to assist in the following courses: bamboo craft, electronics and horticulture.

Aside from the above projects, two major service facilities were put up, the Pilot Rehabilitation Guidance and the Pilot Sheltered Workshop. The Guidance Clinic provides special services designed to assist the Hansenites, recovered drug addicts and ex-prisoners to gain the acceptance of their families and the community during a stressful period of adjustment upon their discharge from the institutions.

To facilitate expansion of programs and services, there were 15 seminars conducted during the same fiscal year for 399 personnel; forty were helped to gain admission in relevant training courses outside of the agency; and 15 fellowships and scholarships secured for officials and employees to go for training abroad.

The two vocational rehabilitation training centers are: The National Rehabilitation Training Center located at Barronas, Quezon City, and the Region I Rehabilitation Training Center, Dagupan City, serving Abra, Baguio City, Ilocos Sur, La Union, Benguet, Ifugao, Mountain Province, Pangasinan, Tarlac, and Zambales, and Region II which includes Batanes, Cagayan, Kalinga-Apayao, Isabela, and Nueva Vizcaya.

## INTERNATIONAL WELFARE

The Philippines is actively involved in the social welfare and social development activities. Showing the competence and leadership in the field of social welfare in the country as well as its immediate recognition in the international scene, the Philippines' Secretary of the Department of Social Welfare<sup>1</sup> was elected Chairman of the International Conference held in New York in September 1968. This Conference was actively attended by 350 officials, the purpose of which was to give emphasis to the role of social welfare services internationally.

Public services are supplemented by those of voluntary agencies whose interests includes the welfare of families and children and of groups with special needs.

The Foster Parents Plan, a private organization was initiated by Mr. Carlos P. Romulo, former President of United Nations, in February 1961, the purpose of which was to promote care, maintain education, to strengthen family resources and to prevent the disintegration of families in economic distress. It is qualified to participate in the relief of program in the Philippines under the terms and conditions embodied in the pertinent notes exchanged between the United States Embassy in Manila and the Department of Foreign Affairs of the Philippines. Robert W. Sage opened the PLAN which has been so beneficial to the country.

## GOVERNMENT PROGRAM

### Social Security System

To insure benefits among private employees as well as its dependents in time of sickness, disability, old age and death, a semi-government corporation, the Social Security System, was established on September 1, 1957. The System extends benefits to members such as compensation for loss of earning power, and to its dependents who are wholly dependent upon the members for support.

There is a salary bracket for the computation of benefits. The amount of benefits that an individual member can claim depends upon the rate of remuneration he is receiving. Unlike, the Workmen's Compensation Act, the SSS death benefits is given regardless of the cause of death. The death benefit shall not be less than ₱500.00 nor less than the total contributions paid by the covered employees and employers for him. The beneficiaries can claim for death benefits even though the covered member did not die in line of duty.

Retirement benefits are monthly pensions given to qualified SSS member-employees who retire from employment due to old age. They are paid for as long as the retired employee lives and payments are guaranteed for five years. The basic monthly pension is equal to 30 percent of the first ₱300.00 average monthly salary credit of fraction thereof plus 6 percent of the excess over the 300 hundred pesos.

Sickness benefits are daily cash allowances given to SSS member employees who are confined or unable to work due to sickness or bodily injury. They are intended to replace the lost earnings. The daily allowances ranges from a minimum of ₱2.50 to a maximum of ₱8.00. The number of compensable days per calendar year should not exceed 120 days, un-

1/ Mr. Gregorio Feliciano, Secretary of the Department of Social Welfare.

used portion of the 120 days for the current year shall not be added to the allowable total for the succeeding year. Sickness benefits are advanced by the employer and paid to the sick employee every regular pay day. The employer gets 100 percent reimbursement from the system, for the total amount of sickness benefits he advanced, upon receipt of satisfactory proof of such payment and legality thereof.

Disability benefits are either monthly pensions or lump sum payments given to SSS member-employees who suffer permanent disability and who have paid to the system at least 36 monthly contributions. It is guaranteed for five years. The unpaid balance of his pension will be given in lump sum payment to his beneficiaries or in the absence, to his legal heirs, if the disabled member dies before the expiration of the 5-year guaranty period.

In 1970, the system paid benefits amounting to P49 million broken down as follows: P19.1 million sickness, P16.5 million retirement, P10.7 million death, P2.6 million disability and P0.1 million refund benefits. (See Table VI.7).

Table VI.7—SOCIAL SECURITY BENEFIT PAYMENTS: 1969 AND 1970

Benefit Payments	1970	1969	Change
Total	P 48,992,441	P 43,687,899	P 5,304,542
Sickness	19,117,669	19,025,911	91,758
Retirement	16,548,530	13,502,290	3,046,240
Death	10,650,591	8,871,103	1,779,488
Disability	2,578,717	2,241,216	337,501
Refund	96,934	47,379	49,555

Source: Social Security System, Annual Report 1970.

## **Government Service Insurance System (GSIS)**

This is another government agency which was established to promote efficiency and welfare among government employees. The System participates largely on activities ranging from the small salary and policy loans to the big home consumption loans, from yearly dividends to low-cost housing projects and from loan redemption insurance protection to life insurance benefits, retirement gratuities and annuities.

Life Insurance Benefit is granted to government employees upon death wherein their beneficiaries or policyholders are entitled to the following benefits: (1) Proceeds of matured policies, (2) Death benefits including double indemnities for accidental death, (3) Cash surrender value, collectible upon separation from the service prior to the maturity of their policies.

## **Retirement Insurance Benefits**

A government employee upon retirement is granted a lump sum payment of his guaranteed annuities for 5 years upon compulsory retirement at age 65 with at least 15 years service, or optional retirement at age 63, provided he has creditable service of not less than 18 years (Rep. Act 660). On the other hand, Rep. Act. No. 1616 — provided for two modes of optional retirement: (a) The 30-year monthly payment of annuity for at least 5 years and monthly annuity thereafter for as long as he lives, and (b) The 20-year service plans, — the system refunds the retirement premiums, share for personal contribution with interest, share for government no interest, and also for the payment of a gratuity to the retiree by his employees.

Property insurance benefits is also granted to government entities under Republic Act No. 656 — that of indemnifying government entities on the loss damage of their properties insured with the system.

Members are also entitled to salary loan and mortgage redemption insurance benefits— these benefits represents the obligations of the members that should have otherwise been collected but were waived instead by the system in accordance with the terms and conditions of the Salary Loan and Mortgage Redemption Insurance Plans.

Since 1950, dividend benefits are granted to government employees yearly out of the free surplus realized during each preceding fiscal year. The system distributes this GSIS dividends every Christmas season.

Aside from the above mentioned benefits, pension funds under liquidators, Commonwealth Act No. 186 provides the continuing payment of pension under the various pre-war Pension Funds, like Teachers Retirement and Disability Fund, the Health Pension and Retirement Fund and the Constabulary Pension and Retirement Fund. Payment of these pensions comes from a continuing yearly appropriations authorized under Commonwealth Act No. 237. In Fiscal Year 1966-1967, the system paid a total of P123.6 million, exceeding the previous fiscal year's payment of P108.3 million by 14.17 percent or approximately over P15 million. These benefits included proceeds of life insurance, upon maturity of the policy or upon death, disability, or resignation of the employee, retirement annuities, dividends, and settlement of property losses and damages. Payment to pensions reached the amount of 1.5 million which was paid to pre-war retirees beneficiaries under the defunct Teachers, Health and Constabulary Pension Funds.

In 1968, benefit payments increased by P12.6 million or 10.22 percent. The benefits included proceeds of life insurance, retirement annuities, compensated property losses and damages, loan redemption, annual dividends and pensions to pre-war pensioners.

The Government Service Insurance System members also participate in the fields of higher learning, health conservation, cultural propagation and economic development — all of nation-wide application. Scholarships are also given to deserving children of Government Service Insurance System members.

## Health and Social Welfare Expenditures

Expenditures by all levels of government on health and social welfare in ten years rose from ₱69,892,000 in 1960 to ₱189,469,000 in 1970 or an average increase of 27.1 percent per year. If the growth in population will be taken into account the increase in per capita expenditures from 1960 to 1970, was about 200 percent. Expenditures per person over the same period changed from ₱2.58 in 1960 to ₱5.16 in 1970.

Government expenditures may also be measured in relation to major economic indicators; on this basis, annual government expenditures on health and social welfare over the same years remained relatively stable, fluctuating between 0.47 percent and 0.65 percent of net national income and between 0.41 percent and .56 percent of gross national product.

The share of governmental expenditures on public health and welfare fell from 5.43 percent in 1960 to 5.26 percent in 1970. The highest estimated proportion of government expenditures on public health and welfare was in 1961, which was estimated to be 5.65 percent of total government expenditures. In 1970, health and social welfare expenditures by all levels of government increased by ₱33,977 million or 21.8 percent compared with the previous year.

Table VI.8 shows the government expenditures on public health and social welfare for each year from 1955 to 1970. The Philippines spent a total of ₱189,469,000 for public health and welfare in 1970, which is almost twice as much as in 1964.

Table VI.8 - VALUE AND PERCENTAGE OF GOVERNMENT EXPENDITURES ON PUBLIC HEALTH AND WELFARE IN RELATION TO GROSS NATIONAL PRODUCT AND NATIONAL INCOME: 1955 TO 1970

(In Million Pesos)

Fiscal Year	Gross National Product	National Income	Government Expenditure	Public Health	Welfare	Total Public Health and Welfare	Percent of Public Health and Welfare to		
							G.N.P.	N.I.	Government Expenditure
1955	8,801	7,687	-	-	-	-	-	-	-
1956	9,687	8,420	812.7	35.714	3.865	39.579	0.41	0.47	4.87
1957	10,566	9,215	957.8	42.950	4.770	47.720	0.45	0.52	4.98
1958	11,211	9,837	1,023.9	49.916	5.042	54.958	0.49	0.56	5.37
1959	12,188	10,709	1,082.5	56.614	4.583	61.197	0.50	0.57	5.65
1960	13,000	11,370	1,287.7	64.774	5.118	69.892	0.54	0.61	5.43
1961	14,209	12,334	1,424.5	74.532	5.740	80.272	0.56	0.65	5.64
1962	15,721	13,477	1,647.9	80.642	6.233	86.875	0.55	0.64	5.27
1963	18,135	15,545	1,952.4	87.237	6.467	93.704	0.52	0.60	4.80
1964	19,459	16,506	2,064.6	92.008	5.931	97.939	0.50	0.59	4.74
1965	21,070	17,794	2,134.3	96.037	6.035	102.072	0.48	0.57	4.78
1966	23,246	19,569	2,359.4	97.256	7.114	104.370	0.45	0.53	4.42
1967	25,425	21,297	2,714.8	102.908	7.181	110.089	0.43	0.52	4.06
1968	29,965	25,178	3,255.9	126.455	10.109	136.564	0.45	0.54	4.19
1969	33,097	27,726	3,598.7	142.170	13.327	155.497	0.47	0.56	4.78
1970	39,647	32,546	3,817.6	176.497	12.972	189.469	0.48	0.58	5.26

1/ Adjusted to Calendar Year by getting the average of 2 fiscal years.

Source: General Auditing Office and National Economic Council.

## NATIONAL VOLUNTARY HEALTH WELFARE ACTIVITIES

### Presidential Arm on Community Development (PACD)

A number of national voluntary agencies carry an important work in the provision of health and welfare services, of which one is the Presidential Arm on Community Development (PACD) that provides assistance through a corps of trained community personnel by assisting communities to plan and organize their development activities. Grants-in-Aide (GIA) is a government funding programs provided by the PACD in the form of processed materials (never cash) to community projects initiated by the people in cooperation with technical agencies and local governments. Priorities are given to increased production and income, public improvements, and to improve health and sanitation.

### Philippine National Red Cross

The Philippine National Red Cross which was established in 1948 performs various activities which involve humanitarian work for the Filipino people. These include blood programs, disaster preparedness, relief safety nursing, military welfare, home and chapter services and fund raising activities.

Several medical services are also extended by the Red Cross during the year. They help in immunization drives against cholera and typhoid fever in areas threatened by these diseases. Doctors and nurses join relief workers and first aiders during disaster relief operations, demonstrations, rallies and strikes and maintain aid stations where people congregate.

a. *Disaster preparedness and relief service* — The great mobilization of Red Cross manpower and financial resource was witnessed in 1970 as a result of several disasters of destructive proportion which brought suffering to thousands of families all over the country. There were 1,120 fires, 7 killer typhoons, 6 earthquakes, 9 floods, 13 tornados and several other disasters which include landslides, shipwreck, volcanic eruptions and gas explosions. There were a total of 2,223,219 disaster victims who turned to the Red Cross for assistance. These victims were helped to evacuation centers and in addition to the usual relief aid of foodstuff and clothing, were provided with mass feeding, infant feeding program, medical and first-aid assistance. These aids help bring back to normal the lives of stricken families.

b. *Safety Services* — To insure an effective safety program, the Red Cross prepares new instructional materials, prints, and revises safety manuals for instruction, which are disseminated to the public in coordination with mass media. The Red Cross also plans to establish more services outlets, to continue ambulance service and first aid and medical units for the general public, issuance of more safety tips for the prevention of accidents and the promotion of safety program in industrial and commercial firms, schools and government offices.

c. *Nursing Service* — The Red Cross provides nursing services to urban and rural folks. Home nursing courses were taught to housewives and other interested persons by Red Cross nurses in Manila and the provinces together with volunteers from various institutions. It has its information program on family planning to help in the government's efforts to curb the over population problem. Nurses were trained to undertake the family planning instructional course with the aid of Family Planning Organizations of the Philippines.

Provincial and city chapters organized classes in home nursing throughout the year, utilizing the services of volunteer instructors. In almost all major relief operations, the Red Cross were mobilized to render services ranging from distribution of food, clothing, and medicine, establishments and maintenance of milk feeding centers for infants and giving of nursing care to the sick and the injured. The Red Cross also provides first-aid and home nursing courses for the youth, to enable them to help in disaster relief work.

Young members of the Red Cross participated in the various phases of relief work during the series of typhoons that struck the country.

## **Philippine Veterans Administration (PVA)**

The Philippine Veterans Administration, created on October 6, 1960, by virtue of Republic Act No. 2661 which was approved on June 20, 1960, was an answer to a pressing need for a more convenient system of veterans' benefits.

The PVA took over the powers, duties and functions of the Defunct Board on Pensions for (revolutionary) veterans of the Philippine (World War II) Veterans Board, the Veterans Back Pay Commission, the Veterans Claim Commission and the claim office of the Judge Advocate General, Armed Forces of the Philippines. The purpose of the PVA's creation was to standardize policies and procedures, to effect operational economy, and to afford convenience to the veterans and their dependents.

According to the annual report for the fiscal year 1969-1970, the PVA's Board of Administrator acted upon a total of 19,988 claims for various types of veterans benefits. Of the above claims, 17,918 were approved, 1,606 denied and 464 were cancelled or suspended.

Expenditures in the amount of ₱512,788,588.75 were made for various veterans benefits such as old age, death and disability pensions, free education, death gratuities and other privileges. Current beneficiaries of the PVA numbering 76,387 are veterans of the Philippine Revolution World War II and the Korean conflict and their widows, orphans, indigent parents, disabled retirees and the surviving next of kin of deceased personnel of the AFP and the PC.

Every month, about ₱3 million is paid as pensions of 10,247 disabled veterans and their minor children of deceased World War II Veterans and 10,283 revolutionary and their widows.

Enrolled in schools, colleges and universities under the PVA educational benefits program for the same fiscal year are over 20,000 veterans of World War II of the Korean conflict and/or their children. However, because of inadequate funds, this program suffers serious setbacks. The PVA has only ₱3.5 million available yearly, to implement the program which if fully implemented, would require at least ₱10 million a year.

## CHAPTER VII. — EDUCATION

One of the most important assets of the Philippine economy is the high educational level which is higher than in many other developing countries. The present rate of literacy is 83.4 percent.

The high literacy rate in the country can be attributed to the emphasis laid by the government on education. The extent of the power of the state over educational institution is embodied in Article XIV, Section 5 of its constitution which states as follows:

"All educational institutions shall be under the supervision of and subject to regulation by the State. The Government shall establish and maintain a complete and adequate system of public education, and shall provide at least free public primary instruction, and citizenship training to adult citizens. All schools shall aim to develop moral character, personal discipline, civic conscience, and vocational efficiency, and to teach the duties of citizenship. Optional religious instruction shall enjoy academic freedom. The state shall create scholarship in arts, science and letters for specially gifted citizens."

### ADMINISTRATION AND ORGANIZATION OF EDUCATION

Responsibility for the organization and administration of public education is exercised by the national government through the Department of Education.

The Department of Education has the executive supervision over the Bureau of Public Schools, the Bureau of Private Schools, the Bureau of Public Libraries, the Institute of National Language, and the National Museum, and directly attached to it is the Division of Community & Adult Education, the Board on Textbooks, the Philippine Historical Committee and the Physical Education Division.

It is the duty of the Secretary of Education to maintain a general standard of efficiency in all private schools and colleges of the Philippines so that the same shall furnish adequate instruction to the public, in accordance with the class and grade of instruction. The Secretary has also the authority to supervise, inspect, and regulate said schools and colleges to determine the efficiency of instructions given to them.

#### Bureau of Public Schools

The Bureau of Public Schools is responsible for the administration of the public school system and supervision of the general schools in the Philippines. It is charged with the conduct and management of all special schools supported from National funds and with the administration of the school laws and such other laws as may be within the jurisdiction of said Bureau. (Section 909 Administrative Code, as amended).

The Bureau is headed by a Director with duties and responsibilities as follows: 1) To establish primary schools in every town in the Islands, where practicable; 2) To establish night schools; 3) To fix the salaries of teachers within the limits established by law; 4) To fix the curricula for all public schools under his jurisdiction; 5) To prescribe the authority to be exercised by the principal teacher of each school over the other teachers, if any, and his duties as teacher actually engaged in the work of instruction and in caring for the school house and school property; 6) To approve plans for the construction of school houses to be built by the municipalities or provinces and shall fix the amount of land required in each case; 7) To prescribe rules of hygiene to be observed in connection with the schools of the Philippines; 8) To determine the towns in which teachers, to be paid out of the National Treasury, shall teach; and he may exercise this discretion in favor of those towns which shall construct and maintain suitable school houses, by local taxation or contributions; 9) To maintain, in Manila or elsewhere in the Philippines, classes to furnish superior instruction to teachers, as may be allowed or required by law. (Section 910 Administrative Code). He is authorized to rent textbooks to intermediate and secondary school pupils in the public schools. (Act No. 4139).



## Bureau of Private Schools

It is the function of the Bureau of Private Schools to supervise over the private schools, including the curricula that should be followed therein, the determination of standards before authorization or recognition that should be accorded to private schools.

## Bureau of Public Libraries

Powers, duties and functions of the Bureau of Public Libraries on the other hand, include the preservation of all books, libraries, and library material or equipment belonging to the institution or confined to its custody; the acquisition, by purchase, loan, or gift, of additional books, libraries, or other materials contributory to its end and purposes; the supplying of adequate reading facilities to the public in the City of Manila, and so far as practicable, the extension of such facilities into the provinces, in response to the needs and increasing advancement of the people of the Philippines; the supervision over the use of the facilities of the institution by the public at large, with a view to the most advantageous utilization of the means of study and culture supplied by it; the organization, preservation, equipment, and maintenance of a special administrative and legislative reference library, to be of aid to the several departments of the Government and especially to the two Houses of Congress, their committees, or members, in the consideration, preparation, and drafting of bills; the preparation, printing, and publication of prints, pamphlets, bibliographic catalogues, manuscripts, monographs, or any literary or scientific work deserving to be published in the interest of the Government, of the public welfare, of the history of the Philippines, or of science and art in general. (Section 1689 Administrative Code).

The Bureau also performs the duty of the abolished Board of Documents, that is, to "examine the old documents, public records, and papers presented to it by the chiefs of the different bureaus and offices of the Government and to determine whether or not such documents, public records, and papers are of any value either to the public." (See Commonwealth Act No. 54).

It also performs the functions of registering priests and issuing to them authorization to solemnize marriages. It also performs the functions relating to the registering of copyrights.

## Institute of National Language

The Institute of National Language has the duty to make a study of the Philippine dialects in general for the purpose of evolving and adopting a common national language based on one of the existing native tongues. Special duties of this Institute include the following: 1) To make a study and survey of the chief tongues of the Philippines spoken at present by at least half a million inhabitants; 2) To select from said native tongues and arrange in separate groups: a) Words and phrases used in all or in the majority tongues and tongues, with common sound and meaning; b) Words used in all or in the majority of said tongues, with the same sound but with different meaning; c) Words used in all or in the majority of said tongues, with similar sound but with same or different meanings; 3) To study and determine the Philippine phonetics and orthography; 4) To make a comparative critical study of all Philippine prefixes, infixes and suffixes; 5) To choose the native tongue which is to be used as a basis for the evolution and adoption of the Philippine National Language.

In proceeding to such election, the Institute shall give preference to the tongue that is the most developed as regards structure, mechanism, and literature and is accepted and used at the present time by the greatest number of Filipinos. (Section 5, Commonwealth Act No. 184).

The Institute of National Language has the authority to correct, alter, or amend the linguistic forms and expressions of any or all textbooks written in the national language of the Philippines which are intended for adoption as official texts in the school, subject to the approval of the President of the Philippines. (Commonwealth Act No. 333).

Functions of the National Museum on the other hand, include the acquisition, organization, preservation, administration, and increase, as the resources of the treasury may allow, of a museum containing picture, painting, sculptures, portraits, photographs, maps, geographical charts, and all objects which, by reason of their archeological, artistic, scientific, or commemorative value should be permanently preserved as a memento of, and out of veneration for the great men of the country, as a testimony of the national history and culture, or for the benefit of culture in general.

The Division of Adult and Community Education which has been transferred to the Bureau of Public Schools, is charged with the following function and duties: To initiate and conduct surveys to determine the extent and distribution of illiteracy among adults; to enlist the interest and cooperation of organization on adult education activities; to prepare a comprehensive program for adult education; organize and supervise schools and classes for adults; to disseminate instructive cultural and vocational information, secure lecturers, demonstrators, extension and follow-up workers for adult education; to train teachers, and community organizers for adult education; to cooperate with the Bureau of Health, Science, Plant Industry, Commerce, and Labor in undertakings concerned with vocational training and the improvements of living conditions; to cooperate with the Philippine Library Association for the establishment of public libraries which can better serve the educational needs of adults; to prepare statistics and report on its activities and the means of carrying out its objectives, that is, to eliminate illiteracy and to give vocational and citizenship training (Commonwealth Act No. 80).

### **Authority and Powers of the Board on Textbooks**

The board on textbooks has the power to select and approve textbooks to be used in the public schools, which are to be used for a period of at least six years from the date of their adoption.

The textbooks used in the private schools recognized or authorized by the Government are submitted to the Board which has the power to prohibit the use of any of said textbooks which it may find to be against the law or to offend the dignity and honor of the Government and people of the Philippines, or which it may find to be against the general policies of the Government, or which it may deem pedagogical. (Section 1, Republic Act No. 139, amending Act No. 2957 as amended by Acts Nos. 3185, 3402 and 3772).

### **Philippine Historical Committee**

The Philippine Historical Committee is charged with the following duties: 1) To identify and appropriately mark the historic antiquities in the Philippines; 2) To prepare or repair important antiquities owned by the Government or any of its political subdivisions; and 3) To acquire by purchase or otherwise antiquities owned by private persons.

### **Physical Education Division**

The Physical Education Division on the other hand, has the following functions: 1) To cooperate with the Philippine Amateur Athletic Federation in carrying out the provisions of the charter of that organization; 2) to perform such other functions as the Secretary of Education may prescribe.

### **Bureau of Vocational Education**

The modern labour force has little use for untrained and poorly educated young persons but is greatly in need of qualified trademen, technicians and professionals. Vocational and training schools were established to prepare the youth for developing manpower program and successfully contribute to economic productivity.

The Bureau of Vocational Education under the Department of Education aims to upgrade the various training programs with the view of making the youth and adults contribute more substantially to the development of the country's skilled manpower, especially those that are most needed by occupation and to set up measures that would bring greater productivity not only of the school but also of the people, especially in the production of economic goods and services. The Bureau focused its energies and activities towards optimum contribution to the economic development. Efforts are also made to overcome the financial barriers to continuing education. The Bureau of Vocational Education aims to accelerate the development of a skilled labor force to increase the productive capacity of workers needed in trade and industrial, agricultural and fishery ventures. It hopes to prepare youth with the latest and most modern and efficient technical skills for the development of the Philippine economy. To attain its goals, the Bureau has principal programs like trade industrial education, agricultural education and fisheries education, and also maintains special programs such as teacher education, evening opportunity courses, apprenticeship, cooperative trade training, agricultural extension work, short courses in manpower training and other projects aimed at expanding and enhancing further the regular programs of the Bureau and gearing such courses toward present-day needs and making them appropriately responsive to the requirement of industry and the community.

### Current Educational Situation

The government and the private sectors are continuing their vital participation in the preparation of the nation's youth to face life's challenge in the future, to minimize poverty, eliminate unemployment, curb criminality and other pressing problems, especially those related to juvenile delinquency, student activism and unemployment in the country.

The education programs of the Department of Education are integrated with the economic effort of the nation, especially with manpower development. The promotion of science is emphasized by revitalizing the science course in public schools with the cooperation of the University of the Philippines to improve high school science teaching.

The Department of Education has also negotiated a project with the National Science Development Board under which selected high schools are provided with basic science teaching equipment over a four-year period. The equipment are then manufactured by government trade schools on the prototype developed by the UP Science Teaching Center.

To develop a strong, healthy nation, a long-ranged integrated national program of sports development which involves students in public and private schools, colleges and universities was launched.

### Field of Educational Planning

The Department Committee on Research and Statistics was created on April 21, 1967 to coordinate and direct the collection, evaluation and analyses of school data, as well as to design, direct and supervise research in certain fields. The committee was authorized by the Secretary of Education to call upon the personnel of Offices for such information as it may need in connection with its work.

To determine curricular and educational practice and to set the standards which will ensure the development of the human personality, the appreciation of human rights and other values held by society, the following programs were conducted by the Department of Education: 1) adoption of Bureau and/or agency action programs; 2) upgrading of administration, supervision and instruction through in-service training programs such as teachers' meetings, workshops, work conferences, demonstration teaching and intervisitations; 3) evaluation of instruction by testing and observation; 4) improvement of school plant as well as of school equipment and facilities; 5) conducting research studies; 6) improvement of school public relations; 7) encouraging the practice of democratic supervision and the creation of democratic atmosphere in the classrooms; 8) vitalization of guidance and counseling services; 9) programming of literacy and citizenship training for adults and out-of-school youth; 10) preparation

of local resources and services of resource persons and consultants and encouragement of field trips for enriching the teaching-learning process.

To help solve the multifarious education problems, the Bureau of Public Schools launched an intensive educational program in order to improve not only the curriculum and the quality of education but also the promotion and protection of the general health of the school population, the dissemination of education information through mass communication media, the extension and improvement of the auxiliary services rendered by the schools and the intensive promotion of literacy and adult education.

The Bureau has also made preparation for the implementation of R.A. 5447, known as the Special Education Fund. In school year 1968-1969, it conducted workshops for superintendents and other school officials, taking up with them the provision of the law and its implementation, as well as instruction on the preparation of special budget issued by the Department of Education and the organization of local school boards. The position created under R.A. 5447 by the school boards were 3,450 extension positions, 49 head teachers, 55 principal I, 39 principal II, and 16 principal III.

Various forms of incentives are offered to public school teachers to encourage them to attain higher and additional courses to enable them to acquire to maximum proficiency in teaching. Such incentives are in the form of scholarship, training grants, promotion and increased salary rates.

In order to increase the productive capacity of workers needed in trade and industry, agriculture and fishery ventures, as well as to prepare youth with the latest and most modern, efficient technical skills, the Bureau of Vocational Education has launched principal programs like trade industrial education, agricultural education and fisheries education. The Bureau also maintains special programs such as teacher education, evening opportunity courses, apprenticeship, cooperative trade training, agricultural extension work, short courses in manpower training and other projects aimed at expanding and enhancing further the regular programs of the Bureau and gearing such courses toward present-day needs and making them appropriately responsive to the requirements of industry and the community which the vocational school serves.

In order to eliminate illiteracy, or at least reduce it to a negligible minimum, a six-year intensive literacy and adult education drive, initiated during the school year 1966-67, especially for those within the age bracket of 15 to 35 years was continued.

To serve the purpose for which the Adult and Community Education Division was established, two distinct but interrelated courses, the functional literacy course and that of continuing education are offered by the Bureau of Public Schools.

Functional literacy course is hard to implement. Educating adults is not an easy job since it is essential that they should first be made to appreciate the value of education. This involves programs suited to the correct approaches to motivate the initiative of adults to appreciate the value of education. Developing their ability to read and write simple messages are the stepping stones towards their interest to higher education. Aside from teaching them how to read and write, some subjects like arithmetic, citizenship and vocations are taught while health and sanitation are explained to them. New adult education primers were prepared based on the latest method of literacy teaching which was discovered by the world famous literacy expert, Dr. Sarah Gudschinsky of the Summer Institute of Linguistics.

The Continuing Education for Adults and Out-of-School Youths course is an extension service offered to out-of school youths and adults who are desirous to improve further their ability to increase their competence in social, vocational and other fields of human endeavor. This includes cultural or personal enrichment, vocational development, practical craft, health and safety education, parent home, and family education, civic activities and citizenship.

On the other hand, the Bureau of Private Schools, an agency through which the Department of Education implements its national policies on private education, focused its program on the improvement of classroom instruction, the improvement of teaching learning situation, the improvement of discipline and achievement of national goals on social action, development of sports and physical fitness and moral spiritual value.

## Contribution of Government to Education

In school year 1967-1968, government expenditures for the Department of Education amounted to P685 million, a sizable amount of which was absorbed by the Bureau of Public Schools, approximately P644 million representing 94 percent of the total. The Bureau of Vocational Education, on the other hand, absorbed approximately P36.6 million or 5.34 percent of the total, while all other offices combined under the Department of Education; namely, Office of the Secretary, National Library, Institute of National Language, National Museum, Bureau of Private Schools and National Historical Commission accounted for the remaining P14.4 million or 0.66 percent.

The appropriation for the Department increased to P877.3 million for school year 1968-1969 and P970.1 million for 1969-1970 with the amounts distributed to the different agencies varying correspondingly.

Despite the rising government expenditures on education, thousands of children are still refused admission to elementary schools every year because of inadequate schoolrooms and school facilities.

In school year 1967-1968, approximately 206 thousand children were refused admission to elementary schools. Of the seven million in the 14-21 age bracket, 4.5 million were out of school and about 3 million did not enter college. The former was due to inadequate schoolrooms while the latter was traced to lack of funds, causing the drop-out problem. There is a considerable percentage of dropouts in the Philippines and the factors attributable to this high percentage are usually financial as well as the inability of the individual to properly select a course suited to his aptitude, giving rise to other problems.

## STATISTICS OF SCHOOLS, UNIVERSITIES AND COLLEGES

Schools in the Philippines are classified for statistical purposes into public and private. Public schools include those under the Bureau of Public Schools, Bureau of Vocational Education, State Colleges and State Universities, while private schools are those under the Bureau of Private Schools.

There were approximately 41,641 schools in the Philippines in school year 1968-1969 all under the jurisdiction of the Department of Education. Public schools accounted for 38,719 schools or 92.98 percent of the total while private schools accounted for 2,922 or 7.02 percent. Of the 38,719 schools classified as public, approximately 38,430 were under the Bureau of Public Schools, 222 under the Bureau of Vocational Education and 67 state universities and state colleges. (See Table VII.1)

In general, public schools offer general courses while schools under the Bureau of Vocational Schools offer courses such as agriculture, fishery, trade, special as well as general courses. State universities and colleges offer academic, agriculture, trade, special as well as general and academic courses.

Table VII.1 - TOTAL NUMBER OF SCHOOLS 1965-1966 TO 1969-1970

Bureau	1965-1966	1966-1967	1967-1968	1968-1969	1969-1970
Bureau of Public Schools	33,849	36,428	37,013	38,430	38,945
Bureau of Vocational Education	196	207	221	222	224
State Universities & Colleges	19	20	20	67	26
Bureau of Private Schools	1,587	2,525	2,660	2,922	2,994

Source: Department of Education.

### Overall Enrolment (Public and Private)

Enrolment for all levels for both public and private schools during the school year 1968-1969 was approximately 8.9 million, of which enrolment in public schools accounted for 7.1 million which was approximately six times greater than enrolment in private schools of 1.9 million. This can be attributed to the numerous number of public schools operating during the same school year compared with the number of private schools. On the whole, enrolment for both public and private schools increased by approximately 6.28 percent from 8.437 million in school year 1967-1968 to 8.967 million in school year 1968-1969.

Enrolment in public schools increased by approximately 5.63 percent from 6.679 million to 7.055 million while private schools from 1.767 million to 1.913 million or an increase of approximately 8.26 percent.

Enrolment in the first level or elementary accounted for the bulk of enrolment in school year 1968-1969 for both public and private schools, accounting for 6.7 million or 74.62 percent of total enrolment, followed by second level or high school 1.5 million or 16.77 percent and third level or collegiate 624 thousand or 6.95 percent in that order. Enrolment in public and private schools, by school level for school year 1967-1968 and school year 1968-1969, is shown in Table VII.2.

Bulk of enrolment in public schools in school year 1968-1969 was accounted for by first level or elementary numbering 6.4 million or 90.29 percent followed by second level or high school 621 thousand or 8.80 percent and third level or collegiate 59 thousand or 0.84 percent, in that order.

In contrast, enrolment in secondary level or high school occupied the highest position in private schools accounting for 885 thousand or 45.91 percent, followed closely by third level or collegiate numbering 565 thousand or 29.36 percent, and by first level or elementary accounting for 331 thousand or 17.18 percent.

Table VII.2—ENROLMENT IN PUBLIC AND PRIVATE SCHOOLS, BY SCHOOL LEVEL 1967-1968 AND 1968-1969

School Level	1967 - 1968						1968 - 1969					
	Total Enrolment		Public School		Private School		Total Enrolment		Public School		Private School	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pre-School	38,705	0.46	945	0.02	37,760	2.14	46,351	.52	1,397	.02	44,954	2.34
First Level or Elementary	6,403,848	75.90	6,116,737	91.58	287,111	16.25	6,700,358	74.62	6,369,718	90.29	330,640	17.18
Second Level or High School	1,265,677	15.00	452,771	6.78	812,906	46.01	1,505,830	16.77	621,066	8.80	884,764	45.91
Third Level or Collegiate	540,132	6.50	8,830	.13	539,478	30.54	624,001	6.95	58,966	.84	565,035	29.36
Graduate Level (Master & Doctorate)	8,242	a/	66	a/	8,176	0.46	14,767	.16	3,103	.04	11,664	.61
Vocational (special)	180,958	2.14	99,664	1.49	81,294	4.60	88,169	.98	847	.01	87,322	4.54
T o t a l	8,437,562	100.00	6,679,013	100.00	1,766,725	100.00	8,967,852	100.00	7,055,097	100.00	1,912,755	100.00

a/ Less than .01.

Source: Statistical Bulletin 1967-1968; Public School Annual Report, 1967-1968, Department of Education.

## Overall Number of Teachers (Public and Private Schools)

In the same school year, the total number of teachers in both public and private schools reached 305,170 of which public school teachers were approximately 231,996 almost three times the number of private school teachers numbering 64,384. Likewise, vocational school teachers surpassed the number of teachers in state universities and colleges with 5,105 as against 3,685 for state universities and state colleges during the same school year. On the whole, public teachers including those under vocational, state colleges, and universities, accounted for 240,786 or 78.90 percent while private school teachers accounted for only 64,384 or 21.10 percent of the total school teachers. (See Table VII.3)

Table VII.3—NUMBER OF TEACHERS BY SCHOOL LEVEL, SCHOOL YEAR 1968-1969

School	Number of Teachers					
	Total	Percent Distribution	Total	Percent Distribution	Total	Percent Distribution
<b>TOTAL</b>	<b>305,170</b>	<b>100.0</b>	<b>79,134</b>	<b>100.0</b>	<b>220,381</b>	<b>100.0</b>
<b>Public -</b>	<b>240,786</b>	<b>78.90</b>	<b>55,472</b>	<b>70.10</b>	<b>179,629</b>	<b>81.52</b>
Bureau of Public School	231,996	96.35	53,906	97.32	178,010	99.08
Bureau of Vocational Education	5,105	2.12	-	-	-	-
State Universities and State Colleges	3,685	1.53	1,486	2.68	1,649	.92
<b>Private -</b>	<b>64,384</b>	<b>21.10</b>	<b>23,662</b>	<b>29.90</b>	<b>40,722</b>	<b>18.48</b>
Bureau of Private Schools	64,384	21.10	23,662	29.90	40,722	18.48

Source: Educational Statistics, School Year 1968-1969.

## College Enrolment and Graduates (Public and Private)

Total college enrolment in both public and private schools rose from 539,129 in school year 1967-1968 to 625,315 in school year 1968-1969 or an increment of approximately 15.99 percent. In both school years, teacher training accounted for the bulk of the total, accounting for 31.32 percent in school year 1968-1969 and 35.37 percent in school year 1967-1968.

Enrolment in commerce and business administration followed closely the enrolment in teacher training which formed 28.29 percent of the total in school year 1968-1969 and 25.87 percent in school year 1967-1968. Enrolment in liberal arts ranked third in both years followed by engineering and technology. Other courses which accounted for less than one percent of the total enrolment in both school years included chemistry, home economics, and nautical.

Total number of college graduates in the Philippines during the same school year reached 91,983 of which education graduates accounted for the bulk numbering 42,819 or 46.55 percent which is almost equal the combined graduates of other courses such as agriculture, chemistry, home economics, commerce, engineering and technology, law and foreign service, liberal arts, medical science, music and fine arts, nautical, graduate studies and doctorate courses. Commerce and business administration ranked second only to teacher training accounting for 26,097 or 28.37 percent followed by liberal arts graduates accounting for 8,531 or 9.27 percent of the total graduates.

Engineering and technology occupied the fourth position accounting for 5.10 percent of the total graduates. Other courses in which graduates accounted for at least 1 percent of the total includes agriculture 1.77 percent, law and foreign service 1.52 percent, medical science 3.40 percent, home economics 1.06 percent, and graduate studies 1.15 percent. Courses in which graduates accounted for less than 1 percent of the total include chemistry 0.39 percent, music and fine arts 0.71 percent and nautical 0.71 percent. (See Table VII.4)

Table VII.4-COMPARISON OF ENROLMENT AND GRADUATES AND DISTRIBUTION, BY FIELD OF STUDY, PUBLIC AND PRIVATE SCHOOLS, SCHOOL YEARS 1967-1968 AND 1968-1969

Field of Study	1967-1968				Percentage of Graduates	1968-1969				Percentage of Graduates
	Enrolment		Graduates			Enrolment		Graduates		
	Number	Percent	Number	Percent		Number	Percent	Number	Percent	
Total	539,128	100.00	84,474	100.00	15.67	525,315	100.00	91,983	100.00	14.71
Agriculture	3,279	.61	714	.84	21.77	7,902	1.26	1,628	1.77	20.60
Chemistry	2,498	.46	253	.30	10.13	3,882	.62	357	.39	9.20
Commerce and Business Administration	139,490	25.87	14,702	17.40	10.54	176,889	28.29	26,092	28.37	14.75
Home Economics	3,771	.70	910	1.08	24.13	5,633	.90	975	1.06	17.29
Engineering and Technology	52,860	9.81	4,588	5.43	8.68	60,423	9.66	4,693	5.10	7.77
Law and Foreign Service	13,428	2.49	1,363	1.61	10.15	15,877	2.54	1,396	1.52	8.79
Liberal Arts	93,506	17.34	9,375	11.10	10.03	109,211	17.47	8,531	9.27	7.81
Medical Science	22,166	4.11	4,269	5.05	12.26	24,874	3.30	3,128	3.40	12.58
Music and Fine Arts	6,412	1.19	527	.62	8.22	7,336	1.16	650	.71	8.98
Nautical	2,676	.50	393	.46	14.69	3,342	.53	652	.71	19.51
Teacher Training	190,693	35.37	46,831	55.43	24.56	195,919	31.32	42,819	46.55	21.87
Graduate Studies	8,182	1.52	479	.57	5.85	14,222	2.27	1,062	1.15	7.47
Unclassified	167	.03	90	.11	53.89	-	-	-	-	-

Source of Basic Data: Department of Education, Annual Reports 1967-1968 and 1968-1969  
Education Statistics, School Year 1968-1969

As previously mentioned, there was an oversupply of education graduates as well as graduates of other allied courses and a low supply of graduates in technical courses in the same school year. This oversupply of education graduates is perhaps, the result of the freedom of our people to choose the schools that they may go to and to decide what course they may enroll in. The probability of seeking employment after graduation is the primary goal in choosing their line of endeavor. Parents' choice, rather than aptitude, usually influence their children in the selection of their courses resulting naturally in an oversupply of graduates in some courses. This seems to imply the need for restructuring the educational system in the country in order to achieve the country's objectives of industrialization and development.

### Number of Foreign Students

In school year 1968-1969, there were approximately 57,205 foreign students enrolled in various educational institutions of the country. Of the total, the greatest number was accounted for by Chinese students numbering 50,606 representing 88.47 percent of the total, followed by Americans 4,109 or 7.18 percent and Thailanders 1,008 or 1.76 percent. Other students of different nationalities that were enrolled in the Philippines during the same school year which accounts for at least 100 students include English 158, Indian 492, Japanese 140, Spanish 107. (See Table VII.5)



Table VII.5—TOTAL NUMBER OF FOREIGN STUDENTS BY COUNTRY  
1968 - 1969

Country	Total		Private		Public	
	Number	Percent	Number	Percent	Number	Percent
TOTAL	57,205	100.00	55,933	100.00	1,272	100.00
Africa	4	.01	4	.01	-	-
Afghanistan	9	.02	-	-	9	.70
Argentina	6	.01	6	.01	-	-
Australia	60	.11	99	.11	1	.08
Austria	9	.02	9	.02	-	-
Belgium	14	.02	14	.03	-	-
Brunei	2	-	-	-	2	.16
Burma	6	.01	-	-	6	.47
Canada	18	.03	18	.03	-	-
Ceylon	10	.02	3	.01	7	.55
Chile	1	-	1	-	-	-
China	50,606	88.47	50,367	90.05	239	18.79
Colombia	1	-	-	-	1	.08
Denmark	6	.01	5	.01	1	.08
Egypt	1	-	-	-	1	.08
England	158	.31	148	.27	10	.79
France	5	.01	5	.01	-	-
Germany	64	.11	60	.11	4	.31
Ghana	1	-	-	-	1	.08
Greece	1	-	1	-	-	-
Hain	2	-	1	-	1	.08
Hong Kong	16	.03	1	-	1	.08
Hungary	2	-	2	-	-	-
India	492	.86	487	.87	5	.39
Indonesia	72	.13	55	.10	17	1.34
Iran	1	-	-	-	1	.08
Ireland	2	-	2	-	-	-
Israel	1	-	-	-	1	.08
Italy	12	.02	12	.02	-	-
Japan	140	.25	135	.24	5	.39
Korea	39	.07	33	.06	6	.47
Lebanon	1	-	1	-	-	-
Liberia	2	-	-	-	2	.16
Malaysia	14	.02	5	.01	9	.70
Nepal	2	-	-	-	2	.16
Netherlands	5	.01	4	.01	1	.08
Nigeria	1	-	-	-	1	.08
North Solomon Island	1	-	-	-	1	.08
Pakistan	21	.04	7	.01	14	1.10
Russia	1	-	1	-	-	-
Spain	107	.19	107	.19	-	-
Sweden	211	.02	10	.02	1	.08
Switzerland	38	.07	38	.07	-	-
Syria	3	.01	3	.01	-	-
Thailand	1,008	1.76	810	1.45	198	15.37
Trust Territory	2	-	-	-	2	.16
United States of America	4,109	7.18	3,477	6.22	632	49.68
Venezuela	4	.01	4	.01	-	-
Vietnam	58	.10	39	.07	19	1.49
New Zealand	1	-	-	-	1	.08
Others	55	.10	-	-	55	4.32

Source: Educational Statistics, Bureau of Education 1968-1969.

## PUBLIC SCHOOLS

In school year 1967-1968, there were approximately 37,013 public schools operating in the Philippines under the supervision of the Bureau of Public Schools. Of the total, 9 were special schools, 93 Philippine UNESCO, NCTC, 28 normal schools, 2,702 city schools and 34,181 provincial schools.

Out of the 66 provinces in the Philippines, bulk of the 34,181 schools could be found in Iloilo numbering 1,471, Pangasinan 1,439 and Bohol 1,159.

On the other hand, among 2,702 city schools in 42 cities of the country, the most number of schools could be found in Quezon City with 195 schools. Other cities with at least 100 schools include Basilan 134, Butuan 104, Calbayog 155, Davao 155, Legaspi 108, Manila 148, San Pablo 109, and Zamboanga 190.

Philippine Normal schools under the Bureau of Public Schools numbering 28 were evenly distributed to 7 provincial schools consisting of 4 normal schools, each with one Kindergarten, one primary, one intermediate and one secondary school and one collegiate school. (See Table VII.6).

Table VII.6 - NUMBER OF PUBLIC SCHOOLS AT THE DIFFERENT LEVELS OF EDUCATION (PRE-SCHOOL, ELEMENTARY, SECONDARY AND COLLEGIATE) BY SCHOOLS DIVISIONS AND CHARTERED CITIES AS OF APRIL, 1968

DIVISIONS	Kindergarten	Primary	Intermediate	Secondary	Collegiate	TOTAL
GRAND TOTAL	17	22,255	13,815	919	7	37,013
Total Provinces	2	20,742	12,699	778	7	34,181
<b>Provinces</b>						
Abra	-	215	94	3	-	312
Agusan	-	286	105	-	-	391
Aklan	-	275	117	1	-	393
Albay	-	300	362	83	-	685
Antique	-	374	165	8	-	568
Bataan	-	98	54	9	-	161
Batanes	-	17	12	3	-	32
Batangas	-	65	65	5	-	135
Benguet	-	194	128	1	-	323
Biak	-	129	74	2	-	205
Bohol	-	307	345	7	-	1,159
Bukidnon	-	337	337	3	-	677
Bulacan	2	242	187	3	-	434
Cagayan I	-	314	155	12	-	481
Cagayan II	-	120	119	4	-	243
Camarines Norte	-	187	145	10	-	342
Camarines Sur	-	716	340	25	-	1,081
Comigwin	-	45	30	6	-	81
Capi	-	202	144	9	-	355
Catanduanes	-	178	126	14	-	318
Cavite	-	222	140	6	-	368
Cebu	-	394	407	13	-	814
Cotabato I	-	347	154	9	-	510
Cotabato II	-	506	234	39	-	779
Cotabato III	-	130	164	35	-	329
Davao del Norte	-	361	182	22	-	565
Davao del Sur	-	283	283	13	-	479
Davao Oriental	-	177	85	17	-	279
Ifugao	-	164	164	-	-	328
Ilocos Norte	-	321	214	21	-	556
Ilocos Sur	-	404	240	6	-	650
Iloilo	-	921	489	61	-	1,471
Isabela	-	615	256	6	-	877
Kalinga	-	167	107	-	-	274
Laguna	-	263	175	5	-	543
Lanao del Norte	-	156	106	1	-	263
Lanao del Sur I	-	176	10	-	-	263
Lanao del Sur II	-	81	63	-	-	144
La Union	-	261	202	23	-	486
Leyte I	-	342	235	23	-	600
Leyte II	-	138	143	31	-	312
Leyte III	-	198	159	6	-	363
Marinduque	-	153	86	6	-	245
Masbate	-	232	253	19	-	504
Misamis Occidental	-	296	135	5	-	436

Table VII.6 - (Continued)

Divisions	Kinder- garden	Pri- mary	Inter- mediate	Secun- dary	Colle- giate	TOTAL
Misamis Oriental	-	277	117	8	-	402
Magros Occidental	-	386	286	15	-	687
Magros Oriental	-	256	187	2	-	445
Nueva Ecija	-	498	272	12	-	782
Nueva Vizcaya	-	125	90	7	-	222
Occidental Mindoro	-	129	71	3	-	203
Oriental Mindoro	-	308	164	8	-	480
Palawan	-	417	192	10	-	619
Pampanga	-	352	252	18	-	622
Pangasinan	-	774	647	18	-	1,439
Quezon I	-	61	24	3	-	88
Quezon II	-	550	297	8	-	855
Rizal	-	50	193	4	-	247
Romulun	-	147	108	2	-	257
Samar I	-	237	181	-	-	418
Samar II	-	592	196	13	-	801
Samar III	-	406	167	2	-	575
Surigao	-	88	45	9	-	142
Siquijor	-	54	29	1	-	84
Sorsogon	-	404	279	12	-	695
Southern Leyte	-	262	124	12	-	398
Sulu I	-	211	90	1	-	302
Sulu II	-	87	68	-	-	155
Surigao del Norte	-	205	106	31	-	342
Surigao del Sur	-	160	87	17	-	264
Tarlac	-	382	188	13	-	583
Zambales	-	76	21	2	-	99
Zamboanga del Norte	-	371	175	17	-	563
Zamboanga del Sur	-	448	212	15	-	675
Total Cities	8	1,457	1,104	133	-	2,702
<b>Cities</b>						
Angeles	-	12	8	-	-	20
Bacolod	-	25	22	8	-	55
Baguio	8	12	12	2	-	34
Basilan	-	83	48	3	-	134
Butuan	-	68	30	6	-	104
Cabanatuan	-	33	28	7	-	68
Cagayan de Oro	-	45	29	2	-	76
Calbayog	-	127	26	2	-	155
Calocan	-	11	21	7	-	39
Canlaon	-	12	5	-	-	17
Capis	-	15	20	1	-	36
Cavite	-	10	7	-	-	17
Cebu	-	48	31	-	-	79
Cotabato (Cot. II)	-	16	9	-	-	25
Dagupan	-	21	21	-	-	43
Davao	-	33	14	-	-	47
Dapitan	-	14	23	-	-	37
Davao	-	40	104	11	-	155
Dumaguete	-	1	11	-	-	12
Dingoog	-	57	30	1	-	88
Iligan	-	41	19	1	-	61
Iloilo	-	36	25	2	-	63
La Carlota	-	20	13	3	-	36
Lapu-Lapu	-	14	20	-	-	34
Legaspi	-	66	42	-	-	108
Lipa	-	32	32	-	-	64
Lucena	-	20	20	-	-	40
Manila	-	70	48	30	-	148
Marawi	-	16	14	-	-	30
Maga	-	15	13	-	-	28
Ormoc	-	51	10	6	-	67
Ormaiz	-	17	24	5	-	46
Pasay	-	12	12	1	-	25
Quezon	-	101	77	17	-	195
Roxas	-	7	21	-	-	28
San Carlos	-	47	51	-	-	98
San Pablo	-	55	52	2	-	109
Tacoloban	-	14	16	5	-	35
Tagaytay	-	14	6	1	-	21
Tolado	-	8	20	-	-	28
Trece Martires	-	5	1	1	-	7
Zamboanga	-	133	69	8	-	190

Table VII.6 - (Continued)

Divisions	Kindergarten	Primary	Intermediate	Secondary	College	TOTAL
Total Normal Schools	7	7	7	-	7	28
<b>Normal Schools</b>						
Ateneo de Manila Coll.	1	1	1	-	1	4
De La Salle Normal Sch.	1	1	1	-	1	4
De La Salle Normal School	1	1	1	-	1	4
Loyola Normal School	1	1	1	-	1	4
Northern Luzon Univ. College	1	1	1	-	1	4
Pangasinan Normal School	1	1	1	-	1	4
West Visayas State College	1	1	1	-	1	4
Total Special Schools	-	2	2	2	-	2
<b>Special Schools</b>						
Jose Fabella Memorial School	-	1	1	1	-	3
School for the Deaf and Blind	-	1	1	1	-	3
School for the Crippled Children	-	1	1	1	-	3
Philippine UNESCO NCTC	-	46	42	2	-	22

Source: Department of Education, Educational Statistics, 1968.

Philippine Public Schools are further classified as Central, Barrio, and Special Schools. Of the total 37,013 public schools in school year 1967-68 Barrio schools accounted for 33,242 or 89.81 percent, while Central Schools and Special Schools accounted for 3,762 and 9 respectively, representing 10.16 percent and .02 percent. (See Table VII.7).

Table VII.7 - NUMBER OF PUBLIC SCHOOLS AT ALL LEVELS OF EDUCATION, BY CURRICULUM OFFERED, APRIL 1968

School Levels and Curriculum	Central <sup>1/</sup>	Barrio	Special <sup>2/</sup>	Total
Total - All Levels	<u>3,762</u>	<u>33,242</u>	<u>9</u>	<u>37,013</u>
Pre-school Level	<u>17</u>	-	-	<u>17</u>
Kindergarten <sup>3/</sup>	17	-	-	17
First Level (Elementary)	<u>3,400</u>	<u>32,664</u>	<u>6</u>	<u>36,070</u>
Primary	1,552	20,700	3	22,255
Intermediate	1,848	11,964	3	13,815
Second Level (Secondary)	<u>338</u>	<u>578</u>	<u>3</u>	<u>919</u>
General	338	578	3	919
Third Level (Collegiate)	<u>7</u>	-	-	<u>7</u>
Normal	7	-	-	7

1/ Primary Intermediate and General Secondary Schools located in the "poblacion" are placed under Central.

2/ This refers to the School for the Deaf and Blind and Jose Fabella Memorial School.

3/ Kindergarten schools are part of the normal schools.

NOTE: A school which maintains both primary and intermediate classes is counted as one primary and one intermediate school; a school which maintains both intermediate and secondary classes is counted as one intermediate and one secondary. A school which maintains both secondary and collegiate classes is counted as one secondary and one collegiate school.

Source: Bureau of Public Schools, Statistical Bulletin, 1967-1968.

## Enrolment in Central, Barrio and City Schools

Total intermediate enrolment in central, barrio and city schools in school year 1967-1968 reached 6.1 million of which enrolment in Grade I to Grade IV accounted for 4.6 million while Grade V to Grade VII enrolment accounted for 1.5 million. Of the total enrolment, the majority was accounted for by barrio schools which formed 3.9 million or representing 64.28 percent, followed by central schools with 1.6 million or 27.13 percent and city schools with 525 thousand or 8.59 percent. (See Table VII.8)

**Table VII.8—ANNUAL ENROLMENT AND PERCENTAGE OF ENROLMENT IN CENTRAL, BARRIO AND CITY SCHOOLS AT DIFFERENT GRADE LEVELS OF EDUCATION, SCHOOL YEAR 1967-1968**

Grade level	ANNUAL ENROLMENT				PERCENTAGE OF ENROLMENT			
	Central : Schools	Barrio2/ Schools	City3/ Schools	Total	Central : Schools	Barrio : Schools	City : Schools	Total
<b>PRIMARY</b>								
Grade I	321,986	982,107	99,357	1,403,450	22.94	69.98	7.08	100.00
Grade II	278,601	800,047	91,141	1,169,789	23.82	68.39	7.79	100.00
Grade III	257,618	723,033	86,858	1,067,509	24.13	67.73	8.14	100.00
Grade IV	247,181	640,646	89,557	977,384	25.29	65.55	9.16	100.00
<b>TOTAL</b>	<b>1,105,386</b>	<b>3,145,833</b>	<b>366,913</b>	<b>4,618,132</b>	<b>23.94</b>	<b>68.12</b>	<b>7.94</b>	<b>100.00</b>
<b>INTERMEDIATE</b>								
Grade V	346,600	398,757	84,848	830,205	41.75	48.03	10.22	100.00
Grade VI	207,184	387,543	73,579	668,306	31.00	57.99	11.01	100.00
Grade VII	-	-	94	-	-	-	100.00	100.00
<b>TOTAL</b>	<b>553,784</b>	<b>786,300</b>	<b>158,521</b>	<b>1,498,605</b>	<b>36.95</b>	<b>52.47</b>	<b>10.58</b>	<b>100.00</b>
<b>GRAND TOTAL</b>	<b>1,659,170</b>	<b>3,932,133</b>	<b>525,434</b>	<b>6,116,737</b>	<b>27.13</b>	<b>64.28</b>	<b>8.59</b>	<b>100.00</b>

1/ Based on the total annual enrolment for each grade level.

2/ Excluding school divisions of Sulu II, Surigao del Sur and Tarlac.

3/ Central and barrio schools in chartered cities.

Sources: Statistical Bulletin, Bureau of Public School School Year 1967-1968.

### Enrolment Trends in Public Elementary Schools

Enrolment in elementary level for school year ending 1946 to 1968 showed considerable increase from 2.387 million in 1946 to 6.116 million in 1968, except for school years ending 1952 to 1959. Indexwise, with 1945-46 as base year, the 1967-68 index is 256.19, while during 1952 to 1959 the index ranged from 138.37 to 159.21 as shown in Table VII.9 below.

**Table VII.9—TRENDS IN PUBLIC ELEMENTARY SCHOOL ENROLMENT, 1945-1946 TO 1967-1968**

(Base Year-SY 1945-1946)

School Year	Enrolment	Increase/Decrease		Index
		Number	Percentage	
1945-1946	2,387,513	-	-	100.00
1946-1947	3,102,206	714,693	29.93	129.93
1947-1948	3,356,802	254,596	10.66	140.59
1948-1949	3,693,177	336,375	14.09	154.68
1949-1950	3,960,375	267,198	11.19	165.87
1950-1951	3,931,042	(29,333)	(1.23)	164.64
1951-1952	3,796,325	(134,717)	(5.64)	159.00
1952-1953	3,438,832	(357,493)	(14.97)	144.03
1953-1954	3,365,428	(73,404)	(3.07)	140.96
1954-1955	3,303,541	(61,887)	(2.59)	138.37
1955-1956	3,354,913	51,372	2.15	140.52
1956-1957	3,519,382	164,469	6.89	147.41
1957-1958	3,575,350	55,968	2.34	149.75
1958-1959	3,801,140	255,790	9.46	159.21
1959-1960	3,968,880	167,769	7.03	166.24
1960-1961	4,001,331	32,451	1.36	167.60
1961-1962	4,226,807	225,476	9.44	177.04
1962-1963	4,598,097	371,290	15.55	192.59
1963-1964	4,992,381	394,284	16.51	209.10
1964-1965	5,327,704	335,323	14.04	223.14
1965-1966	5,551,310	223,606	9.37	232.51
1966-1967	5,909,547	358,237	15.00	247.51
1967-1968	6,116,737	207,190	8.68	256.19

Sources: Bureau of Public Schools, Research, Evaluation and Guidance Division, Statistical Bulletin, 1969.

### Enrolment Trends in Public Secondary Schools

The trends in public secondary school enrolment with school year 1945-46 as the base year, was generally more stable with very slight decreases during the four school years when these decreases occurred. This trend of enrolment in absolute numbers, represents yearly increases of as high as 58 and 45 thousand for 1966-67 and 1965-66, respectively and decreases of not over 13 thousand. Based on school year 1945-46, enrolment index increased to 176.38 in 1949-50 but decreased to a low 162.73 in 1950-51, and further increased to 178.03 in 1951-52. The next two years reflected slight decreases compared to 1951-52, but in 1954-55, a 3.90 percent increase was registered compared to previous school year. Then in 1958-59, the enrolment index was registered at 183.36 and increased steadily to 446.21 in 1967-68.

Table VII.10—TRENDS IN PUBLIC GENERAL SECONDARY SCHOOL ENROLMENT, 1945-46 TO 1967-68

School Year	Enrolment	Increase/Decrease		Index
		Number	Percent	
1945-1946	101,467	-	-	100.00
1946-1947	137,893	36,426	35.90	135.90
1947-1948	159,398	21,505	21.19	157.09
1948-1949	169,477	10,079	9.93	167.02
1949-1950	178,973	9,496	9.36	176.38
1950-1951	165,122	(13,851)	(13.65)	162.73
1951-1952	180,650	15,528	15.30	178.03
1952-1953	178,285	(2,365)	(2.33)	175.70
1953-1954	179,738	1,453	1.43	177.13
1954-1955	183,693	3,955	3.90	181.03
1955-1956	178,194	(7,499)	(7.39)	173.64
1956-1957	180,553	4,359	4.30	177.94
1957-1958	181,543	990	0.98	178.92
1958-1959	186,052	4,509	4.44	183.36
1959-1960	193,077	7,025	6.92	190.28
1960-1961	185,295	(7,782)	(7.67)	182.61
1961-1962	205,692	20,397	20.10	202.71
1962-1963	226,798	21,106	20.80	223.51
1963-1964	269,654	42,856	42.24	265.75
1964-1965	303,567	33,913	33.42	299.17
1965-1966	348,816	45,249	44.59	343.76
1966-1967	407,260	58,444	57.60	401.36
1967-1968	452,771	45,511	44.85	446.21

Sources: Bureau of Public Schools, Statistical Bulletin.

## Enrolment at All Levels

For school year 1967-68, the enrollment figure of public schools was 6.6 million with 6.1 million in the first levels, 452,771 in the second level, 8,830 in the third level, 945 in the pre-school and 66 in the graduate level. The percentage of male was slightly higher than the female, but as the level of education goes higher the male percentage tends to decrease in relation to the female enrollees. For the pre-school level, it was 50.69 percent for males and only 49.31 percent for females, following a somewhat similar trend for the first and second levels but the percentage of females was 79.26 percent as against the 20.74 percent of the males for the third level (collegiate), and 66.67 percent female as against 33.33 percent for the male for the graduate level. (See Table VII.11).

Table VII.11 - NUMBER AND PERCENTAGE OF PUPILS AND STUDENTS ENROLLED BY SEX AND LEVELS OF EDUCATION (KINDERGARTEN, ELEMENTARY, SECONDARY, AND COLLEGIATE) AS OF APRIL, 1968

Levels of Education	Annual Enrolment			Percentage		
	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pre-School (Kindergarten)	479	466	945	50.69	49.31	100.00
First Level (Elementary) <sup>1/</sup>	3,157,700	2,959,037	6,116,737	51.62	48.38	100.00
Second Level (Secondary) <sup>2/</sup>	226,408	226,363	452,771	50.01	49.99	100.00
Third Level (Collegiate)	1,831	6,999	8,830	20.74	79.26	100.00
Graduate Level	22	44	66	33.33	66.67	100.00
TOTAL	3,386,440	3,192,909	6,579,349	51.47	48.53	100.00

<sup>1/</sup> First Level Enrolment - 1966-1967 data were used for the divisions of Bataan, Cotabato I, Samar I, Samar II and Tarlac.

<sup>2/</sup> Second Level Enrolment - 1966-1967 data were used for the division of Bataan, Capi, Cotabato I, Isabela, Occidental Mindoro, Samar I, Samar II, and Tarlac.

Source: Bureau of Public Schools, Statistical Bulletin, 1968.

In school year 1967-68, the highest enrolment in the first level of education, primary and intermediate, was in the first grade followed by the second, third and fourth grades, then the fifth, sixth and seventh grades, considering the pupils retained in the preceding grades and the number of school drop outs for each grade. As previously cited, there was a predominance of male pupils in both the primary and intermediate grades. It can be noted that the number of pupils enrolled in grade VII is exceedingly small for public schools since most of the pupils graduate after passing the sixth grade and very few pupils take the option to continue with the seventh grade.

For the second level of education, there were more male students enrolled than females. A very small percentage of students were enrolled in the fifth year, which is an optional year during the same school year. (See Table VII.12)



Table VII.12—ANNUAL ENROLMENT OF THE FIRST, SECOND AND THIRD  
LEVELS OF EDUCATION, BY SEX, CURRICULUM AND  
GRADE, SCHOOL YEAR 1967 - 1968

Educational level	Annual Enrolment			Percentage		
	Male	Female	Total	Male	Female	Total
<b>First Level, TOTAL</b>	3,157,700	2,959,035	6,116,737	51.62	48.38	100.00
<b>Primary</b>	2,405,652	2,212,480	4,618,132	39.33	36.17	75.50
Grade I	741,964	661,486	1,403,450	12.13	10.81	22.94
Grade II	609,569	560,220	1,169,789	9.97	9.16	19.13
Grade III	554,470	513,039	1,067,509	9.06	8.39	17.45
Grade IV	499,649	477,735	977,384	8.17	7.81	15.98
<b>Intermediate</b>	752,048	746,555	1,498,605	12.29	12.21	24.50
Grade V	417,737	412,466	830,205	6.82	6.75	13.57
Grade VI	334,265	334,041	668,306	5.46	5.46	10.93
Grade VII	46	48	94	0.001	0.001	0.002
<b>Second Level, TOTAL</b>	226,408	226,363	452,771	50.01	49.99	100.00
First Year	84,868	79,599	164,467	18.74	17.58	36.32
Second Year	59,967	59,452	119,419	13.25	13.13	26.38
Third Year	44,712	46,050	90,762	9.88	10.17	20.05
Fourth Year	36,163	40,759	76,922	7.99	9.00	16.99
<b>Third Level, TOTAL</b>	1,831	6,999	8,830	20.74	79.26	100.00
First Year	433	2,046	2,479	4.90	23.17	28.07
Second Year	416	1,716	2,132	4.71	19.43	24.14
Third Year	410	1,602	2,012	4.65	18.14	22.79
Fourth Year	572	1,635	2,207	6.48	18.52	25.00

Source: Bureau of Public Schools, Statistical Bulletin.

## Drop Outs

Drop outs is one of the major problems in Philippine public education. It helps drain the much needed financial resources of the government.

The total number of drop outs in public schools alone for school year 1967-68, was 402,274 out of the total enrolment of 6.58 million at the beginning of the school year, representing approximately 6.11 percent of the total enrolment. The highest percentages of drop outs were in the secondary level with the first year taking the lead of 10.84 per cent, the fifth year with 9.41 percent, second year with 8.52 and the third year with 7.84 percent. Fourth year ranked last among the secondary level with drop outs of approximately 4.31 percent, giving an average of 8.51 percent for this level. (See Table VII.13)

Table VII.13—PERCENTAGE OF DROP OUTS AT DIFFERENT SCHOOL LEVELS  
OF PUBLIC SCHOOLS, 1967 - 1968

School Level	: Annual : Enrolment	: Number of : Drop Outs	: Percentage of : Drop Outs
<b>Total, All Levels</b>	6,579,349	402,274	6.11
<b>Total, Elementary</b>	6,116,737	363,671	5.95
Kindergarten	945	1	0.11
Primary	4,618,132	265,770	5.75
Grade I	1,403,450	98,091	6.99
Grade II	1,169,789	56,450	4.83
Grade III	1,067,509	56,084	5.25
Grade IV	977,384	55,145	5.64
Intermediate	1,498,605	97,901	6.53
Grade V	830,205	57,541	6.93
Grade VI	668,306	40,353	6.04
Grade VII	94	7	7.45
Secondary	452,771	38,546	8.51
First Year	164,467	17,830	10.84
Second Year	119,419	10,177	8.52
Third Year	90,762	7,113	7.84
Fourth Year	76,922	3,313	4.31
Fifth Year	1,201	113	9.41
Collegiate	8,830	56	0.63
First Year	2,479	20	0.81
Second Year	2,132	17	0.80
Third Year	2,012	11	0.55
Fourth Year	2,207	8	0.36
Graduate Studies	66	-	-

Source: Bureau of Public Schools Statistical Bulletin, 1967-68.

In the elementary level, the highest percentage of drop outs was in Grade VII with 7.45 percent, followed by grade I with 6.99 per cent, grade V, 6.93 per cent, grades IV and III with more than 5 per cent and grade II with only 4.83 per cent. The collegiate level had percentages of less than one per cent while graduate level did not reflect any drop out.

The average annual drop out for ten years was 7.16 percent but there was an apparent tendency for a slight decrease during the last four years. A yearly comparison of the over-all average dropouts from 1958-59 to 1967-68 is shown in Table VII.14.

Table VII.14—PERCENTAGE OF CHILDREN DROPPING OUT OF SCHOOL ON EACH GRADE OR YEAR  
SCHOOL YEAR 1958-59 TO 1967-68

Educational level	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	Average
<b>OVERALL AVERAGE</b>	7.75	7.58	8.46	7.89	7.32	7.58	6.57	6.21	6.16	6.11	7.16
<b>Pre-Schools</b>											
Kindergarten	-	-	-	-	7.55	3.23	8.37	5.07	3.97	0.14	4.72
<b>Primary, Average</b>	7.57	7.43	8.34	7.81	7.51	7.63	6.43	6.07	5.95	5.75	7.05
Grade I	8.82	8.30	9.16	8.45	8.80	8.85	7.50	7.51	7.00	6.99	8.14
Grade II	6.22	6.10	6.79	6.21	6.45	6.14	5.33	4.88	4.98	4.83	5.79
Grade III	7.03	6.85	7.56	7.40	6.57	7.04	6.01	5.45	5.34	5.25	6.45
Grade IV	7.79	7.68	9.97	9.22	7.73	8.24	6.60	6.10	6.22	5.64	8.30
<b>Intermediate, Average</b>	7.90	7.67	8.22	8.20	6.53	7.35	6.96	6.34	6.31	6.53	7.20
Grade V	8.69	7.86	8.51	8.09	7.15	8.10	6.90	6.63	6.80	6.93	7.57
Grade VI	6.92	7.42	7.86	8.35	5.75	6.49	7.04	5.95	5.68	6.04	6.75
Grade VII	8.14	6.51	9.35	4.69	6.15	9.05	10.76	11.10	14.00	7.45	8.72
<b>Secondary, Average</b>	9.43	9.39	10.92	8.08	8.14	7.91	7.21	7.63	8.16	8.51	8.54
First Year	13.20	12.81	14.52	10.79	10.69	10.53	9.54	9.88	10.59	10.84	11.34
Second Year	9.83	9.73	10.79	7.76	8.02	6.89	7.18	7.96	8.38	8.52	8.51
Third Year	7.78	7.45	9.30	7.28	7.32	7.42	6.24	7.17	7.69	7.84	7.55
Fourth Year	3.50	4.47	5.59	3.67	3.89	3.96	3.13	3.14	3.46	4.31	3.91
Fifth Year	-	-	-	-	-	-	-	14.01	8.62	9.41	10.68
<b>Collegiate, Average</b>	9.84	2.85	3.44	2.84	0.52	0.45	0.49	1.47	0.99	0.63	2.31
First Year	4.73	4.44	6.12	4.68	1.05	0.43	0.91	1.09	0.55	0.81	2.48
Second Year	9.44	1.55	2.09	2.25	0.43	0.41	0.51	0.97	1.32	0.80	1.98
Third Year	0.87	1.14	0.92	0.94	0.11	0.87	0.16	1.46	0.31	0.55	0.73
Fourth Year	1.19	1.13	0.65	0.42	0.40	0.06	0.22	2.66	0.22	0.36	0.73

Sources: Bureau of Public Schools, Statistical Bulletin, 1967-68.

## Number of Teachers by School Level

Total number of teachers in the public schools by school level showed a gradual rate of increase. From 125,172 teachers in school year 1960-1961, the number rose to 232,118 in school year 1968-1969, or increasing at approximately 10.68 percent per year. Majority of the teachers during the same period was accounted for by elementary school teachers which formed 91.42 percent of the total in school year 1968-1969. Teachers in the secondary level formed 5.53 percent of the total while teachers in kindergarten, collegiate, and special schools combined accounted for less than 2 percent of the total during that same school year. (See Table VII.15)

Table VII.15—NUMBER OF TEACHERS BY SCHOOL LEVEL, BUREAU OF PUBLIC SCHOOL, 1960-1961 TO 1968-1969

School level	1960- 1961	Percent	1961- 1962	Percent	1962- 1963	Percent	1963- 1964	Percent		
TOTAL	125,172	100.00	135,080	100.00	147,050	100.00	172,082	100.00		
Kindergarten	10	.01	16	.01	18	.01	17	.01		
Elementary	111,276	88.90	120,788	89.41	139,128	94.61	148,087	86.06		
Secondary	10,326	8.25	10,010	7.41	3,985	2.70	19,773	11.50		
Collegiate	556	.44	556	.41	245	.17	214	.12		
Special Vocational Courses	-	-	-	-	-	-	-	-		
Special School <sup>1/</sup>	56	.04	63	.05	-	-	40	.02		
Teacher Nurses	495	.40	521	.40	459	.31	556	.32		
Guidance Coordinators	-	-	-	-	-	-	-	-		
Supplementary Education	-	-	-	-	-	-	-	-		
Principals	2,453	1.96	3,126	2.31	3,215	2.20	3,395	1.97		
Supervisors and Principals	-	-	-	-	-	-	-	-		
Superintendents	-	-	-	-	-	-	-	-		
	1964- 1965	Percent	1965- 1966	Percent	1966- 1967	Percent	1967- 1968	Percent	1968- 1969	Percent
TOTAL	171,579	100.00	195,373	100.00	222,358	100.00	222,358	100.00	232,118	100.00
Kindergarten	16	.01	24	.01	34	.02	34	.02	22	.01
Elementary	160,900	93.77	177,207	90.70	199,644	89.78	199,644	89.78	212,215	91.42
Secondary	10,597	6.18	12,195	6.24	16,543	7.44	16,543	7.44	12,825	5.53
Collegiate	66	.04	95	.05	287	.13	287	.13	257	.11
Special Vocational Courses	-	-	130	.07	150	.07	150	.07	-	-
Special School <sup>1/</sup>	-	-	67	.04	71	.03	71	.03	122	.05
Teacher Nurses	-	-	606	.31	569	.26	569	.25	518	.22
Guidance Coordinators	-	-	58	.03	42	.02	42	.02	25	.01
Supplementary Education	-	-	41	.02	50	.02	50	.02	-	-
Principals	-	-	-	-	-	-	-	-	3,569	1.54
Supervisors and Principals	-	-	4,950	2.53	4,968	2.23	4,968	2.23	2,458	1.06
Superintendents	-	-	-	-	-	-	-	-	107	.05

<sup>1/</sup> Included in the total elementary teachers.

Source: Department of Education, Educational Statistics School Year 1968-1969

Public school teachers are assigned to different types of schools, either provincial, city, normal or special schools. In school year 1967-1968, there were 182,411 provincial teachers, 38,779 teachers assigned in city schools, 384 assigned in normal schools, 607 in Philippines UNESCO, NCTC and 177 in special schools.

The provincial teachers in the same school year were distributed to 65 provinces<sup>1/</sup>. The ten leading provinces in terms of public school teachers were; Pangasinan, 8,507 or 4.7 percent; Iloilo, 7,568 or 4.1 percent; Cotabato with 7,460 or 4.1 percent; Cebu with 6,883 or 3.8 percent; Leyte, 6,508 or 3.6 percent; Negros Occidental, 6,441 or 3.5 percent; Rizal, 6,331 or 3.5 percent; Batangas, 5,600 or 3.1 percent; Camarines Sur, 5,023 or 2.8 percent; and Quezon with 4,999 or 2.7 percent. The teachers in these provinces comprised 35.8 percent or 65,320 of the total. In all instances, the female teachers outnumbered their male counterparts, except in Lanao del Sur and in Southern Leyte where 71.78 percent and 62.95 percent were male teachers, respectively. Batanes had the least number of teachers due to its geographical location and population.

Table VII.16—NUMBER AND PERCENTAGE OF PUBLIC SCHOOL TEACHERS, BY PROVINCE, CITY, SCHOOL AND SEX: SCHOOL YEAR 1967-1968<sup>1/</sup>

(Not including state universities and colleges and vocational schools)

Type of school	Number of Teachers			Percentage		
	Total	Male	Female	Total	Male	Female
<b>PHILIPPINES</b>	<b>222,358</b>	<b>52,171</b>	<b>170,187</b>	<b>100.00</b>	<b>23.46</b>	<b>76.54</b>
Provinces	182,411	45,596	136,815	100.00	25.00	75.00
Cities	38,779	6,245	32,534	100.00	16.10	83.90
Normal, Training and Special Schools	1,168	330	838	100.00	28.25	71.75
Provinces .....	<u>182,411</u>	<u>45,596</u>	<u>136,815</u>	<u>100.00</u>	<u>25.00</u>	<u>75.00</u>
Abra .....	975	231	744	100.00	23.69	76.31
Agusan .....	1,585	427	1,158	100.00	26.94	73.06
Aklan .....	1,927	404	1,523	100.00	20.97	79.03
Albay .....	3,509	819	2,690	100.00	23.34	76.66
Antique .....	2,546	591	1,955	100.00	23.21	76.79
Bataan .....	1,378	243	1,135	100.00	17.63	82.37
Batanes .....	199	55	104	100.00	27.64	72.36
Batangas .....	5,600	1,119	4,481	100.00	19.98	80.02
Benguet .....	1,147	292	855	100.00	25.46	74.54
Bonol .....	4,581	1,133	3,448	100.00	24.73	75.27
Bukidnon .....	1,678	479	1,199	100.00	28.55	71.45
Bulacan .....	4,298	745	3,553	100.00	17.33	82.67
Cagayan .....	3,540	890	2,650	100.00	25.14	74.86
Camarines Norte .....	1,787	424	1,363	100.00	23.73	76.27
Camarines Sur .....	5,023	1,339	3,684	100.00	26.66	73.34
Camiguin .....	374	107	267	100.00	28.61	71.39
Capiz .....	2,531	547	1,984	100.00	21.61	78.39
Catanduanes .....	1,446	415	1,031	100.00	28.70	71.30
Cavite .....	2,633	297	2,336	100.00	11.28	88.72
Cebu .....	6,883	1,689	5,194	100.00	24.54	75.46
Cotabato .....	7,460	2,002	5,458	100.00	26.84	73.16
Davao del Norte .....	2,377	619	1,758	100.00	26.04	73.96
Davao del Sur .....	2,221	638	1,583	100.00	28.73	71.27
Davao Oriental .....	1,172	355	817	100.00	30.29	69.71
Eastern Samar .....	2,082	514	1,568	100.00	24.69	75.31
Ifugao .....	568	214	354	100.00	37.68	62.32
Ilocos Norte .....	2,326	523	1,803	100.00	22.48	77.52
Ilocos Sur .....	2,842	587	2,255	100.00	20.65	79.35
Iloilo .....	7,568	1,574	5,994	100.00	20.80	79.20
Isabela .....	3,539	901	2,638	100.00	25.46	74.54
Kalinga Apayao .....	604	274	330	100.00	45.36	54.64
La Union .....	2,452	541	1,911	100.00	22.07	77.93
Laguna .....	3,409	581	2,828	100.00	17.04	82.96
Lanao del Norte .....	1,827	565	1,262	100.00	30.93	69.07
Lanao del Sur .....	1,623	1,165	458	100.00	71.78	28.22
Leyte .....	6,508	1,693	4,815	100.00	26.01	73.99
Marinduque .....	1,056	265	791	100.00	25.09	74.91
Marikina .....	3,154	1,125	2,029	100.00	35.67	64.33
Misamis Occidental .....	1,749	507	1,242	100.00	28.99	71.01
Misamis Oriental .....	1,927	524	1,403	100.00	27.19	72.81

Table VII.16--NUMBER AND PERCENTAGE OF PUBLIC SCHOOL TEACHERS, BY PROVINCE, CITY, SCHOOL AND SEX: SCHOOL YEAR 1967-1968/- Continued

(Not including state universities and colleges and vocational schools)

Type of School	Number of Teachers			Percentage		
	Total	Male	Female	Total	Male	Female
Mountain Province .....	606	203	403	100.00	33.50	66.50
Negros Occidental .....	6,441	1,362	5,079	100.00	21.15	78.86
Negros Oriental .....	3,086	845	2,241	100.00	27.38	72.62
Northern Samar .....	2,133	699	1,434	100.00	32.77	67.23
Nueva Ecija .....	4,301	1,144	3,157	100.00	26.60	73.40
Nueva Visaya .....	1,445	378	1,067	100.00	26.16	73.84
Occidental Mindoro .....	819	187	632	100.00	22.83	77.17
Oriental Mindoro .....	2,066	493	1,573	100.00	23.86	76.14
Palawan .....	1,425	505	920	100.00	35.44	64.56
Pampanga .....	4,356	894	3,462	100.00	20.52	79.48
Pangasinan .....	8,507	2,208	6,299	100.00	25.96	74.04
Quezon .....	4,999	1,230	3,769	100.00	24.60	75.40
Risal .....	6,331	701	5,630	100.00	11.07	88.93
Romblon .....	1,278	372	906	100.00	29.11	70.89
Sorsogon .....	2,977	801	2,176	100.00	26.91	73.09
South Cotabato .....	-	-	-	100.00	-	-
Southern Leyte .....	2,446	448	1,998	100.00	18.32	81.68
Sulu .....	2,653	1,670	983	100.00	62.95	37.05
Surigao del Norte .....	1,428	326	1,102	100.00	22.83	77.17
Surigao del Sur .....	1,366	319	1,047	100.00	23.35	76.65
Tarlac .....	3,312	780	2,532	100.00	23.55	76.45
Western Samar .....	2,318	596	1,722	100.00	25.71	74.29
Zambales .....	1,980	321	1,659	100.00	16.11	83.79
Zamboanga del Norte .....	2,541	733	1,808	100.00	28.85	71.15
Zamboanga del Sur .....	3,533	968	2,565	100.00	27.40	72.60
Cities .....	38,779	6,245	32,534	100.00	16.10	83.90
Angeles .....	426	68	358	100.00	15.96	84.04
Bacolod .....	1,155	155	1,000	100.00	13.42	86.58
Baguio .....	473	69	404	100.00	14.59	85.41
Basilan .....	850	257	593	100.00	30.24	69.76
Butuan .....	671	116	555	100.00	17.29	82.71
Cabanatuan .....	579	91	488	100.00	15.72	84.28
Cadiz .....	503	111	392	100.00	22.07	77.93
Cagayan de Oro .....	570	73	497	100.00	12.81	87.19
Calbayog .....	573	131	442	100.00	22.86	77.14
Calocan .....	1,263	169	1,094	100.00	13.38	86.62
Canlaon .....	152	27	125	100.00	17.76	82.24
Cavite .....	349	19	330	100.00	5.44	94.56
Cotabato .....	243	29	214	100.00	11.93	88.07
Cebu .....	1,424	146	1,278	100.00	10.25	89.75
Dagupan .....	538	74	464	100.00	13.75	86.25
Davao .....	251	60	191	100.00	23.90	76.10
Dapitan .....	282	66	216	100.00	23.40	76.60
Davao .....	2,314	427	1,887	100.00	18.45	81.55
Dumaguete .....	270	43	227	100.00	15.93	84.07
Gingoog .....	380	80	300	100.00	21.05	78.95

Table VII.16—NUMBER AND PERCENTAGE OF PUBLIC SCHOOL TEACHERS, BY PROVINCE, CITY, SCHOOL AND SEX: SCHOOL YEAR 1967-1968<sup>1/</sup> - Continued

(Not including state universities and colleges and vocational schools)

Type of School	Number of Teachers			Percentage		
	Total	Male	Female	Total	Male	Female
Iligan .....	578	102	476	100.00	17.65	83.35
Iloilo .....	1,275	155	1,120	100.00	12.16	87.84
La Carlota .....	346	72	274	100.00	20.18	79.19
Lapu-Lapu .....	398	71	327	100.00	17.84	82.16
Legazpi .....	551	93	458	100.00	16.88	83.12
Lipa .....	630	107	523	100.00	16.98	83.02
Lucena .....	343	37	306	100.00	10.79	89.21
Manila .....	10,053	1,524	8,529	100.00	15.16	84.84
Marawi .....	314	108	206	100.00	34.39	65.61
Naga .....	327	44	283	100.00	13.46	86.54
Ormoc .....	553	104	449	100.00	18.81	81.19
Ozamiz .....	420	97	323	100.00	23.10	76.90
Pasay .....	841	73	768	100.00	8.68	91.32
Quezon .....	4,417	621	3,796	100.00	14.06	85.94
Roxas .....	441	56	385	100.00	12.70	87.30
San Carlos and Silay .....	987	186	801	100.00	18.84	81.16
San Pablo .....	784	131	653	100.00	16.71	83.29
Tacloban .....	508	79	429	100.00	15.55	84.45
Tagaytay .....	106	27	79	100.00	25.47	74.53
Tagbilaran .....	-	-	-	-	-	-
Tangub .....	-	-	-	-	-	-
Toledo .....	350	54	296	100.00	15.43	84.57
Trace Martires .....	43	13	30	100.00	30.23	69.77
Zamboanga .....	1,248	280	968	100.00	22.44	77.56
Normal Schools .....	384	108	276	100.00	28.13	71.87
Bicol Teachers College ....	59	17	42	100.00	28.81	71.19
Bukidnon Normal School ....	34	9	25	100.00	26.47	73.53
Cebu Normal School .....	66	15	51	100.00	22.73	77.27
Leyte Normal School .....	43	14	29	100.00	32.56	67.44
Normal Luzon Teachers Col..	60	18	42	100.00	30.00	70.00
Pangasinan Normal School ..	67	24	43	100.00	35.82	64.18
West Visayas State College	55	11	44	100.00	20.00	80.00
Philippine UNESCO NCTC (National Community Training Center) .....	607	183	424	100.00	30.15	69.85
Special Schools .....	177	39	138	100.00	22.03	77.97
Jose Fabella Memorial School	85	25	60	100.00	29.41	70.59
School for the Deaf and Blind .....	82	13	69	100.00	15.85	84.15
School for Crippled Children .....	10	1	9	100.00	10.00	90.00

<sup>1/</sup> Includes Division Superintendents and Assistant Superintendent of Schools including those on special detail in the general office.

Sources: Department of Education, Bureau of Public Schools.

## Intermediate, Secondary and Collegiate Classroom Teachers

The improvement of public school education depends to some extent on the quality of the school teachers, principals and supervisors. In school year 1967-1968, only 0.45 percent of the total number of teachers in the field were not qualified to teach the assigned courses, while a very small 0.34 percent were part-time teachers.

Various forms of incentives are offered to public school teachers to encourage them to pursue higher and additional courses to enable them to acquire the maximum proficiency in teaching. Such incentives are in the form of scholarship, training grants, promotion and increased salary rates. A small percentage of teachers in the college level attained master's degree and only 15 out of a total 222,358 teachers and supervisors have doctorate's degree as shown in Table VII.17.

Table VII.17—CLASSIFICATION AND NUMBER OF PUBLIC SCHOOL TEACHERS, 1967 - 1968

Classification	Kindergarten	Classroom Teacher				Guidance Coordination Counselor	Teacher and Nurses	Principals and Super- visors	Total	
		Primary	Intermediate	Secondary	Collegiate				Number	Percent
Total	34	127,072	72,821	16,565	287	42	569	4,968	222,358	100.00
T.L.										
FT	11	127,037	72,302	16,439	243	42	569	4,957	221,600	99.66
PT	23	35	519	126	44			11	758	0.34
Total	34	127,072	72,821	16,565	287	42	569	4,968	222,358	100.00
T.S.										
FQ	34	120,605	69,684	15,685	285	42	564	4,906	211,705	95.21
PQ	-	6,012	2,813	754	2			59	9,640	4.34
NQ	-	555	324	126			5	3	1,013	0.45
Total	34	127,072	72,821	16,565	287	42	569	4,968	222,358	100.00
H.E.Q.										
E 7		71	45						116	0.05
S 4		802	350					2	1,154	0.52
S V		299	813	163				1	1,236	0.56
SN		1,181	594					32	1,807	0.81
CT 2	1	33,067	13,464	113		9		344	46,998	21.14
CT 3		2,029	2,383	96				1	4,509	2.03
CT 4	33	88,877	53,916	14,990	171	26	5	2,924	160,942	72.38
MA		733	983	294	94	7		1,647	3,758	1.69
PD				5	1			9	15	0.01
ED				2				1	3	-
BN		2	52	5				2	605	0.27
RN								19	20	0.01
OG	34	51	221	897	21		1	4	1,195	0.54

Source: Department of Education, Bureau of Public Schools.

### LEGEND FOR TABLE VII.17

- TL — Teaching load
- FT — Full time
- PT — Part time
- TS — Teaching status
- FQ — Fully qualified
- PQ — Partially qualified
- NQ — Not qualified
- HEQ — Highest educational qualifications
- E 7 — Elementary graduate (Grade VII)
- S 4 — Secondary school graduate
- S V — Secondary Vocational graduate
- SN — Secondary Normal graduate
- CTP — Two-year college teacher course graduate (Normal Agriculture and Arts and Trade)
- CT3 — Three-Year College Normal (Combined Curriculum)
- CT4 — Four-Year College Teacher Curriculum Graduate (BSE, BSEE, BSA, BSIA, BSC, BSHE)
- MA — Master of Arts, Master in Education
- PD — Doctor of Philosophy
- ED — Doctor of Education
- BN — B.S. in Nursing
- RN — Registered Nurse
- OG — Other graduate (AA, AB, Chem. Eng. Etc.)



## Cost of Public Elementary and Collegiate Normal Education

The cost of educating the school age population showed an upward trend from school year 1956-57 to school year 1967-68. In spite of the increase in the yearly government appropriation for the Department of Education, the much needed improvement of the educational system cannot be undertaken since educational expenditures are correspondingly increasing.

The cost per capita for elementary education had doubled in eleven-year period from school year 1956-57 to 1967-68 from P9.00 to P18.02 or an average per capita of P13.26. Per pupil cost ranged from P57.89 to P102.17 with an average of P82.00 for this period.

In school year 1965-66, the government paid the highest cost, approximately of P104.83 per pupil. The collegiate normal education per capita cost was negligible during the same period with an average of only P0.08. However, per student cost was high, approximately P239.60 for school year 1962-63 to P319.48 in school year 1967-68. The average per student cost for collegiate normal education was P288.01 for the six-year period from school year 1962-63 to 1967-68.

Compared with the per capita cost of collegiate normal education, cost per capita of public elementary education was very much higher as per capita cost of public elementary education ranged from P9.00 to P18.02, while per capita cost of collegiate normal education ranged from P0.06 to P0.08 during the same period. This seems to imply the high expense which the government incurs in educating school age population.

On the other hand, cost per collegiate student was almost three times greater than cost per elementary pupil as it costs P288.01 per collegiate student, and only P82.00 per elementary pupil.

Special schools such as schools for the deaf and the blind are more expensive to maintain, with a per pupil cost of approximately P1,229.31. Facilities provided for such schools are for a limited number of students, with only the most deserving being accommodated.

Table VII.18—PER CAPITA, PER PUPIL AND PER STUDENT COST OF ELEMENTARY AND OF COLLEGIATE NORMAL EDUCATION 1956-1957 TO 1967-1968

School year	Elementary		Collegiate Normal	
	Per Capita Cost	Per pupil Cost	Per Capita Cost	Per Student Cost
1956 - 1957	9.00	57.89	No Data	No Data
1957 - 1958	9.27	60.51	Available	Available
1958 - 1959	9.40	58.90	-do-	-do-
1959 - 1960	10.10	61.93	-do-	-do-
1960 - 1961	10.76	76.27	-do-	-do-
1961 - 1962	11.87	82.07	-do-	-do-
1962 - 1963	13.73	89.73	0.06	238.60
1963 - 1964	15.01	93.85	0.07	287.64
1964 - 1965	16.60	97.50	0.08	295.79
1965 - 1966	17.98	104.83	0.08	280.19
1966 - 1967	17.35	98.34	0.08	306.35
1967 - 1968	18.02	102.17	0.08	319.48
Average	13.26	82.00	0.08	288.01

Source: Bureau of Public Schools, Statistical Bulletin, 1967-1968.

## Appropriation:

The National budget for school year 1967-1968 under R.A. 5170 for the Bureau of Public Schools amounted to ₱671.8 million representing 29 percent of the total authorized appropriation of ₱2.3 billion of the national government. Of the total appropriation for the Bureau of Public Schools, approximately ₱624.9 million or 97.03 percent of the total operating expenditures was appropriated for general education.

In the following school year, 1968-1969, the Bureau received the lion's share from the national budget to finance its operation particularly its extensive educational program. The general appropriation under R.A. 5432 included the huge sum of ₱760.5 million or 26.18 percent of the national budget of which 7.30 percent were distributed to the Bureau of Public Schools salary adjustment fund, 2.62 percent for general administration, 0.79 percent for medical and dental services, 0.71 for special education and 88.52 for general education.

The public general secondary schools were allotted the amount of ₱5.9 million as national aid under R.A. 3478 as amended aside from the tuition fees collected (₱70 to ₱180 for local high school and ₱30 to ₱80 for national high schools). Added to this aid, the national high schools were also given financial assistance by the national government, in amounts ranging from ₱90,000 to ₱200,000 a year.

In school year 1969-1970, the Bureau was allotted the sum of ₱797,905,068 under Republic Act No. 6050 or 29 percent of the total appropriation of the national government. Of the total appropriation of the Bureau, elementary education accounted for ₱27.5 million under R.A. 5523 for the organization of 8,700 extension positions, 500 district supervisors, 200 principal II and 300 principal I. The positions created by the school boards were 3,450 extension positions, 49 head teachers, 55 principal I, 39 principal II and 16 principal III.

## Expenditures of Government Financed Colleges and Universities

There were 22 colleges and universities in the Philippines financed by the government in school year 1967-1968. It includes the prestigious University of the Philippines, Mindanao State University, Philippine Normal College, Central Luzon State University, Philippine College of Arts and Trade, Philippine College of Commerce, Mindanao Institute of Technology, Central Mindanao University, University of Eastern Philippines, Zamboanga Normal College, Philippine Science High School, etc.

Total appropriation of these colleges and universities totalled ₱65.2 million in school year 1967-68 with the University of the Philippines taking the lion's share of approximately ₱41.6 million representing 63.89 percent of the total. Mindanao State University ranked second, accounting for ₱3.7 million or 5.73 percent, closely followed by Philippine Normal College with ₱2.7 million or 4.15 percent, then by the Philippine College of Commerce ₱2.2 million representing 3.38 percent. Other universities and colleges which accounted for at least 2 percent of the total appropriation include Central Luzon State University, ₱1.65 million or 2.53 percent, Philippine College of Arts and Trade, ₱1.57 million or 2.41 percent, Mindanao Institute of Technology with ₱1.4 million or 2.12 percent.

Other state colleges and universities which accounted for at least 1 percent of the total appropriation include Central Mindanao University ₱1.2 million or 1.86 percent, University of Eastern Philippines ₱1.1 million or 1.68 percent, Zamboanga Normal College with ₱1.3 million or 1.96 percent, Tarlac College of Technology ₱884 thousand or 1.36 percent, Philippine Merchant Marine Academy with ₱767 thousand or 1.18 percent, Philippine Science High School with ₱727 thousand or 1.11 percent and Cagayan Valley Institute of Technology with ₱684 thousand or 1.05 percent. Only approximately 8 universities and colleges expended less than one percent of the total appropriations. (See Table VII.19)

Table VII.19—TOTAL EXPENDITURES OF GOVERNMENT FINANCED COLLEGES AND UNIVERSITIES, BY APPROPRIATION, 1967-1968

(Value in pesos)

Universities and Colleges	Total Expenditures		Current Operating Expenditures		Capital Outlays	
	Value	Percent	Value	Percent	Value	Percent
Total	65,169,700	100.00	57,154,400	100.00	8,015,300	100.00
University of the Philippines	41,636,200	63.89	34,606,800	60.55	7,030,000	87.70
Mindanao State University	3,736,200	5.73	2,858,700	5.00	877,500	10.95
Philippine Normal College	2,704,900	4.15	2,704,900	4.23	-	-
Central Luzon State University	1,651,000	2.53	1,651,000	2.89	-	-
Philippine College of Arts and Trade	1,569,200	2.41	1,569,200	2.74	-	-
Mindanao Institute of Technology	1,382,000	2.12	1,293,200	2.26	88,800	1.11
Central Mindanao University	1,209,000	1.86	1,209,000	2.12	-	-
University of Eastern Philippines	1,904,000	1.68	1,075,000	1.89	19,000	0.24
Zamboanga Normal College	1,281,200	1.96	1,281,200	2.24	-	-
Tarlac College of Technology	883,700	1.36	883,700	1.55	-	-
Philippine Merchant Marine Academy	767,500	1.18	767,500	1.34	-	-
Philippine Science High School	727,500	1.11	727,500	1.27	-	-
Cagayan Valley Institute of Technology	684,000	1.05	684,000	1.20	-	-
Central Luzon Polytechnic College	602,600	.92	602,600	1.05	-	-
Leyte Institute of Technology	530,000	.81	530,000	.93	-	-
Don Severino Agricultural College	479,000	.74	479,000	.84	-	-
Palawan National Agricultural School	369,000	.57	369,000	.64	-	-
Bulacan College of Arts and Trades	455,000	.70	455,000	.80	-	-
University of Northern Philippines	606,000	.93	606,000	1.06	-	-
Philippine College of Commerce	2,200,000	3.38	2,200,000	3.85	-	-
Northern Luzon State College of Agriculture	506,100	.78	506,100	.88	-	-
Children's Educational Foundation College	95,000	.14	95,000	.17	-	-

Sources: Department of Education, Bureau of Public School, Statistical Bulletin, School Year 1968-1969.

## Public School Sites

One of the greatest problems hampering the educational system in the Philippines is inadequate classroom building as a result of inadequate school sites.

The number of public school sites gradually increase from school year 1957-1958 to school year 1967-1968. From 16,662 sites at the beginning of school year 1957-1958, the number rose to 22,100 at the beginning of school year 1967-1968.

The highest number of sites acquired during the period was made in school year 1958-1959 when approximately 1,026 sites were acquired to accommodate the largest increase in the number of students enrolled.

Site acquisition increased by more than 5 percent in school year ending 1959-1960. The next two years however, showed a reduction by more than 4 percent each. In school year 1962-63 and 1963-64 the increases were only 1.73 and 1.52 percent, respectively. The next four years registered less than one percent increase but it increased slightly to 1.07 percent in 1968.

Public school buildings constructed for use of the students were the home economic buildings, school shops, and others, such as cottages, dorms and kitchens.

The number of school buildings constructed during the same period showed a fluctuating rate of increase. There were approximately 12,078 school buildings constructed costing approximately P107.7 million. The number however, went up to 16,231 school buildings valued at P153 million, the highest construction cost registered during the period. Although the number slightly decreased by approximately 0.42 percent, construction cost on the other hand, went up by 5.15 percent to P113.3 million from P107.7 million.

Table VII.20—TOTAL NUMBER OF BUILDINGS AND THE CONSTRUCTION COST FOR EACH YEAR, 1958-1959

Year	School Building		Construction Cost	
	Number	Percent Increase/Decrease	Value	Percent Increase/Decrease
1958 - 1959	12,078		107,713,364	
1959 - 1960	12,027	(0.42)	113,265,290	5.15
1960 - 1961	13,087	8.81	121,007,923	6.84
1961 - 1962	14,036	7.25	124,351,441	2.76
1962 - 1963	14,262	1.61	132,422,122	6.49
1963 - 1964	14,539	1.94	133,513,179	0.82
1964 - 1965	14,724	1.27	141,686,057	6.12
1965 - 1966	16,219	10.15	143,725,898	1.44
1966 - 1967	16,131	(0.54)	145,755,169	1.41
1967 - 1968	16,231	0.62	153,409,260	5.25

Source: Department of Education, Bureau of Public Schools.

To help solve the short-run needs for classrooms, the government resorted to the renting of private buildings to accommodate the bulk of the students. Temporary and rented public school buildings for 1958-59 to 1967-68 were classified as academic, home economics, and shop. In 1958-59, there were 2,957 rented buildings which increased to 3,636 in 1967-68, while there were 16,301 temporary buildings in 1958-59 and 16,747 in 1967-68. The highest number of temporary school buildings was recorded in school 1966-67 with a total of 19,344 while the highest number of rented school buildings with a total of 3,750 was registered in school year 1963-64. As of 1967-68 there were 3,353 buildings rented for academic classes, 187 for Home Economics and 96 as workshops, making a total of 3,636 rented buildings. (See Table VII.21)

Table VII.21—NUMBER OF TEMPORARY AND RENTED PUBLIC SCHOOL BUILDINGS, 1958-1959 TO 1967-1968

School Year	Academic		Home Economics		Shop		Total	
	Temporary	Rented	Temporary	Rented	Temporary	Rented	Temporary	Rented
1958 - 1959	11,780	2,818	2,420	86	2,101	53	16,301	2,957
1959 - 1960	11,332	2,996	2,260	127	2,070	56	15,662	3,179
1960 - 1961	8,250	2,024	1,988	297	1,571	91	11,809	2,412
1961 - 1962	9,922	2,681	2,124	330	1,873	65	13,919	3,076
1962 - 1963	10,858	3,025	2,326	195	1,922	55	15,106	3,275
1963 - 1964	11,901	3,550	2,394	130	2,176	70	16,471	3,750
1964 - 1965	10,484	3,238	2,201	239	2,327	98	15,012	3,575
1965 - 1966	13,275	2,963	2,261	199	2,627	67	18,163	3,229
1966 - 1967	13,933	3,296	2,504	201	2,907	86	19,344	3,583
1967 - 1968	11,551	3,353	2,352	187	2,844	96	16,747	3,636

Sources: Bureau of Public Schools, Research, Evaluation and Guidance Division, Statistical Bulletin.

## Evening Classes

Evening classes play a vital role in helping young ambitious people in continuing their education. Observations revealed that most of these students are working in factories, store, bazars, while others are household helpers with ambitions to finish high school and college courses.

In almost all cases in the secondary level of education males outnumbered the female students. This perhaps could be attributed to the fact that males are desirous in continuing their vocations, or most probably this maybe due to the influence of early marriage among females which hamper their desire to pursue their studies.

In school year 1967-68, enrolment in evening classes at the secondary level of education, exhibited a total of 23,633 of which 13,667 were males and 9,966 females. Of the total, students 15 years and below of age reflected a total of 9,297 or 39.34 percent while 16 to 20 years of age accounted for 11,708 or 49.54 percent and those over 20 years old reflected a total of 2,628 or 11.12 percent. There was a remarkable decline of enrollees from the first to the fifth year in the same school year. Dropping out seemed to be the result of conflict in working schedules as well as tight financial problems.

Table VII.22—ENROLMENT IN EVENING CLASSES, AT THE SECOND LEVEL OF EDUCATION  
BY AGE, SEX AND YEAR, 1967 - 1968

AGE	Total	Male	Female	First Year		Second Year		Third Year		Fourth Year		Fifth Year	
				Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	23,633	13,667	9,966	5,855	3,927	3,692	2,969	2,310	1,640	1,121	938	689	492
Below 12	5	2	3	2	3								
12	581	319	262	313	249	6	12		1				
13	1,856	986	870	879	735	106	125	1	10				
14	3,169	1,731	1,438	1,161	804	486	560	75	61	9	7		6
15	3,686	2,093	1,593	1,153	690	684	654	234	203	17	44	5	2
16	3,060	1,794	1,266	717	435	635	463	329	247	94	111	19	10
17	2,928	1,760	1,168	571	312	561	352	400	270	158	162	70	72
18	2,505	1,469	1,036	378	228	425	276	376	260	168	176	102	96
19	1,811	1,104	707	248	174	279	183	282	168	192	112	103	70
20	1,404	870	534	170	113	216	130	205	132	146	89	123	70
Over 20	2,628	1,539	1,089	263	184	294	214	388	288	327	237	267	166

Source: Bureau of Public School, Research, Evaluation and Guidance Division, 1967-1968.

### Number and Enrolment in Vocational Schools

Vocational schools in the Philippines include agricultural, trade, industrial, fishery, and craftsman schools. Before the second world war, there were already agricultural and trade industrial schools in the Philippines. Fishery and craftsman schools however, sprouted in the late fifties and early sixties, respectively.

From school year 1939-40 to school year 1964-65, total number of vocational schools in the country showed a gradual rate of increase.

There were 23 agricultural and 27 trade industrial schools or a total of 50 vocational schools before the second world war. Over the years, the number gradually increased until it reached 203 in school year 1964-65, which was almost four times greater than its number before the war.

Total enrolment on the other hand, showed a fluctuating rate of increase. Enrolment ranged from as low as 18,361 in school year 1939-40 to 89,750 in school year 1964-65 or an average yearly increase of 15.55 percent.

After the war, there was a decrease in both the number and enrolment of vocational schools.

Table VII.23 -- NUMBER AND ENROLMENT IN VOCATIONAL SCHOOLS, 1939-40 TO 1964-65

School Year	Total		Agricultural		Trade-Industrial		Fishery		Craftsman	
	Number of School	Enrolment	Number of School	Enrolment	Number of School	Enrolment	Number of School	Enrolment	Number of School	Enrolment
1939-1940	50	18,361	23	7,640	27	10,721				
1940-1941	44	18,307	24	6,217	20	12,090				
1945-1946	43	10,360	20	5,962	23	4,398				
1946-1947	50	17,020	21	9,003	29	8,018				
1947-1948	50	20,577	21	9,711	29	10,866				
1948-1949	50	25,084	21	10,889	29	14,195				
1949-1950	51	28,568	21	10,536	30	18,032				
1950-1951	57	33,142	25	11,233	32	21,909				
1951-1952	60	38,196	27	11,028	33	27,168				
1952-1953	61	41,682	31	12,945	30 <sup>a/</sup>	28,737				
1953-1954	63	43,738	31	14,451	32	29,287				
1954-1955	74	48,182	38	17,396	36	30,786				
1955-1956	75	47,804	39	16,903	36	30,901				
1956-1957	75	46,389	39	16,167	36	30,222				
1957-1958	93	47,883	43 <sup>b/</sup>	14,468	41	31,709	9 <sup>a/</sup>	1,706		
1958-1959 <sup>d/</sup>	113	58,505	52 <sup>a/</sup>	17,414	48	39,155	13 <sup>f/</sup>	1,936		
1959-1960	112	56,726	52	17,631	47 <sup>e/</sup>	36,407	13	2,688		
1960-1961	162	64,325	75	22,157	65	39,522	28 <sup>b/</sup>	2,646		
1961-1962	174	68,769	77	23,636	70	41,708	27 <sup>f/</sup>	3,425		
1962-1963	203	76,357	83 <sup>d/</sup>	26,552	86	45,432	34	4,373		
1963-1964	204	86,662	82	27,616	87	54,028	34	5,113	1	706
1964-1965	203	89,750	81	28,187	86 <sup>e/</sup>	55,232	35	6,024	1	707

<sup>a/</sup> The Philippine School of Commerce, Cebu Nautical School and Cebu School of Fisheries were no longer under the Bureau of Public Schools in 1952-53.

<sup>b/</sup> Included one national agricultural school in the process of establishments.

<sup>c/</sup> Included two fishery schools in the process of establishments.

<sup>d/</sup> Enrolment as of July, 1959.

<sup>e/</sup> One school is still in the process of establishment. No enrolment yet.

<sup>f/</sup> Two schools were still in the process of establishments. No enrolment yet.

<sup>g/</sup> This did not include the Philippine School of Arts and Trades which became a state supported college.

<sup>h/</sup> Eight schools were still in the process of establishment.

<sup>i/</sup> Including five schools that were still in the process of establishment.

<sup>j/</sup> The Cabacan National Agricultural School became a chartered institution of learning now known as Cagayan Valley Institute of Technology.

<sup>k/</sup> Nueva Ecija S/T became a Chartered College now known as Nueva Ecija Polytechnic Institute of Technology.

Source: Bureau of Vocational Education, Statistical Bulletin, 1965.

Table VII.24 presents enrolment in vocational schools for 1968-1969 and the number of schools in different fields of vocational education. Total number of vocational schools was 222 with total enrolment of 105,831. Trade schools composed the biggest number, with a total of 92 having an enrolment of 59,172 or 55.92 percent, followed by agricultural schools with a total of 85, and an enrolment of 32,633 or 30.83 percent. Fisheries ranked next with 42 schools enrolling 9,766 or 9.23 percent of total students while Home Industries had only 3 schools, with a small enrolment of 4,160 or 4.02 percent.

Table VII.24 - ENROLMENT IN VOCATIONAL SCHOOLS: 1968 - 1969

C o u r s e	Number of Schools	Enrolment	Percent
All Vocational Schools	<u>222</u>	<u>105,831</u>	<u>100.00</u>
<u>Trade</u>	<u>92</u>	<u>59,172</u>	<u>55.92</u>
Teacher Education		2,071	1.96
Technical Education		4,423	4.18
Secondary Trade		44,827	42.36
Secondary General		2,914	2.75
Sec. Agric. Courses		110	0.10
Special		4,515	2.27
Elementary		312	0.30
<u>Agriculture</u>	<u>85</u>	<u>32,633</u>	<u>30.83</u>
Teacher Education		1,103	1.04
Technical Education		1,578	1.49
Farm Mechanics		29	0.03
Secondary Agric.		29,512	27.88
Secondary General		348	0.33
Sec. Trade Course		31	0.04
Special		22	0.02
<u>Fishery</u>	<u>42</u>	<u>9,766</u>	<u>9.23</u>
Technical Fishery		203	0.19
Secondary Fishery		9,192	8.69
Secondary General		371	0.35
<u>Home Industries</u>	<u>3</u>	<u>4,260</u>	<u>4.02</u>

Source: Annual Report of the Director of Vocational Education.



Enrolment in vocational schools by curriculum levels as shown in Table VII.25 reveals that secondary level accounted for the biggest bulk of enrollees with 96,112 or 90.82 percent, followed by collegiate level having 9,407 or 8.89 percent. Elementary or first level of education had the least number of enrollees showing 0.29 percent.

**Table VII.25—ENROLMENT IN VOCATIONAL SCHOOLS, BY CURRICULUM LEVELS, 1968-1969**

Type of curriculum	Enrolment	Percent
All vocational schools	<u>105,831</u>	<u>100.00</u>
Collegiate	<u>9,407</u>	<u>8.89</u>
Teacher Education	3,174	3.00
Technical Education	6,233	5.69
Secondary	<u>96,112</u>	<u>90.82</u>
Secondary (vocational)	83,682	79.07
Secondary (General)	3,633	3.43
Special	8,797	8.32
Elementary	<u>312</u>	<u>0.29</u>

Source: Bureau of Vocational Education

Students enrolled in vocational schools was 102,264 for school year 1969-70 with about 58,845 or 57.54 percent enrolled in trade-industrial schools, 33,501 or 32.76 percent were admitted in agricultural schools and 9,918 or 9.7 percent were enrolled in fishery schools. The total enrolment on vocational schools however, was merely 1.48 percent of the estimated 6,964,333 Filipino youths in the 13 to 21 age bracket.

### **Expenditures of Vocational Schools and Cost Per Student**

In 1967, the general funds appropriation for these schools was P35,235,606 with P4.5 million from the special funds. This increased to P36.7 million of general funds in 1968, P42.7 million in 1969 but decreased to P37.4 million in 1970. The special funds appropriation on the other hand, continued to increase to P7.3 million in 1970.

The actual per student cost of vocational education for 1968-69, was P466.00 for all training programs. Fishery education has the highest per student cost with P723 followed by P683 for agriculture and P383 for trade-technical education. Expenditures and per student costs of vocational education for school year 1967-1968 and 1968-1969 is graphically shown in chart VII.5.

## Vocational Education Graduates

From school year 1965-66 to 1968-69 vocational schools all over the country turned out an average of 14,788 annual graduates for all courses. The highest number of graduates for vocational education was in 1967-68 with 17,214. Table VII.26 shows the vocational courses and the percentage of graduates in each course. From 1964-65 to 1968-69, trade in secondary schools had the highest number of graduates, followed by secondary agriculture, technical trade, fisheries, special trade and education in that order.

Table VII.26 - NUMBER AND PERCENTAGE OF VOCATIONAL EDUCATION GRADUATES,  
BY COURSE, 1964-1965 TO 1968-1969

Course	1964-1965		1965-1966		1966-1967		1967-1968		1968-1969	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	<u>11,592</u>	<u>100.00</u>	<u>11,619</u>	<u>100.00</u>	<u>16,807</u>	<u>100.00</u>	<u>17,214</u>	<u>100.00</u>	<u>16,709</u>	<u>100.00</u>
Teacher Education	289	2.49	484	4.16	749	4.46	801	4.65	940	5.62
Trade	261	2.25	451	3.88	573	3.41	625	3.63	654	3.91
Agriculture	28	.24	33	.28	176	1.05	176	1.02	286	1.71
Technical	<u>1,062</u>	<u>9.16</u>	<u>931</u>	<u>8.01</u>	<u>1,667</u>	<u>9.92</u>	<u>1,973</u>	<u>11.46</u>	<u>1,229</u>	<u>7.36</u>
Trade	933	8.05	838	7.21	1,288	7.66	1,374	7.98	905	5.42
Agriculture	129	1.11	93	.80	349	2.08	576	3.35	265	1.59
Fisheries	-	-	-	-	30	.18	23	.13	59	.35
Secondary	<u>9,275</u>	<u>80.01</u>	<u>9,325</u>	<u>80.26</u>	<u>12,940</u>	<u>76.99</u>	<u>12,961</u>	<u>75.29</u>	<u>13,303</u>	<u>79.62</u>
Trade	5,271	45.47	5,037	43.35	7,487	44.55	7,061	41.02	7,572	45.32
Agriculture	3,402	29.35	3,454	29.73	4,564	27.15	4,908	28.52	4,571	27.36
Fisheries	602	5.19	834	7.18	889	5.29	992	5.76	1,160	6.94
Gen. Secondary	<u>201</u>	<u>1.74</u>	<u>239</u>	<u>2.06</u>	<u>388</u>	<u>2.31</u>	<u>393</u>	<u>2.29</u>	<u>456</u>	<u>2.72</u>
Trade	154	1.33	169	1.46	-	-	202	1.18	183	1.13
Agriculture	-	-	-	-	198	1.18	-	-	183	1.10
Fisheries	47	.41	70	.60	190	1.13	191	1.11	84	.50
Special	<u>765</u>	<u>6.60</u>	<u>559</u>	<u>4.81</u>	<u>959</u>	<u>5.70</u>	<u>1,000</u>	<u>5.81</u>	<u>623</u>	<u>3.73</u>
Trade	719	6.20	521	4.48	767	4.56	849	4.93	623	-
Agriculture	46	.40	38	.33	192	1.14	151	.88	-	-
Elementary	-	-	<u>81</u>	<u>.70</u>	<u>104</u>	<u>.62</u>	<u>86</u>	<u>.50</u>	<u>158</u>	<u>.95</u>
Trade	-	-	81	.70	104	.62	86	.50	158	.95

Source: Bureau of Vocational Education, Annual Report 1969-1970.

For school year 1964-65 to 1968-69, the total number of male graduates in vocational education was higher than the number of female graduates. In school year 1964-65, 68.25 percent of the total graduates were males while in 1965-66, the total number of male graduates was 64.80 percent. This total number became 67.38 percent for school year 1966-67, 66.64 percent for 1967-68 and 62.00 percent for 1968-69. The percentage of male to female for 1968-69 showed a considerable decrease which should be attributed to the fact that females are beginning to compete with males in the field of vocational education specifically in teaching of agriculture, secondary fisheries courses, general secondary trade and agriculture and fisheries. Table VII.27 shows number of vocational education graduates by sex, for school year 1964-65 to 1968-69. A graphical presentation of graduates from vocational schools is shown in Chart VII.2.

## EDUCATION

Table VII.27.- NUMBER OF VOCATIONAL EDUCATION GRADUATES, BY SEX  
AND BY COURSE, 1964-65 TO 1968-69

C o u r s e	1965-1966			1966-1967			1967-1968			1968-1969		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Total</b>	11,545	7,911	3,634	11,549	7,529	4,020	16,807	11,325	5,482	17,214	11,471	5,745
<b>Teacher</b>												
Education	289	211	68	484	333	151	749	535	214	801	578	223
Trade	261	195	66	451	317	134	568	134	434	625	480	145
Agriculture	28	26	2	33	16	17	176	101	75	176	98	78
<b>Technical</b>	1,062	908	154	931	798	133	1,667	1,331	336	1,973	1,583	390
Trade	933	824	109	838	728	110	1,288	1,053	235	1,374	1,162	212
Agriculture	129	84	45	93	70	23	349	260	89	576	398	178
Fishery	-	-	-	-	-	-	30	18	12	23	23	-
<b>Secondary</b>	9,275	6,126	3,149	9,325	5,807	3,518	12,940	8,335	4,605	12,961	8,211	4,750
Trade	5,271	3,536	1,735	5,037	3,279	1,758	7,487	4,808	2,679	7,061	4,225	2,836
Agriculture	3,402	2,271	1,131	3,454	2,097	1,357	4,564	3,079	1,485	4,908	3,364	1,544
Fishery	602	319	283	834	431	403	889	448	441	1,332	662	670
<b>General Secondary</b>	154	72	82	169	60	109	388	183	205	393	221	172
Trade	154	72	82	169	60	109	-	-	-	202	129	74
Agriculture	-	-	-	-	-	-	198	96	102	-	-	-
Fishery	-	-	-	-	-	-	190	87	103	191	93	98
<b>Special</b>	765	584	181	559	450	109	959	837	122	1,000	792	208
Trade	719	538	181	521	412	109	767	659	108	849	641	208
Agriculture	46	46	-	38	38	-	192	178	14	151	151	-
<b>Elementary</b>	-	-	-	81	81	-	104	104	-	86	86	-
Trade	-	-	-	81	81	-	104	104	-	86	86	-

Source: Bureau of Vocational Education.

## Special Schools

Parents are now aware of the possible help and benefits handicapped persons could derive from special schools, especially males who could be trained to do work and be useful to society.

Some of the special schools operating in the Greater Manila area with elementary, secondary and upgraded courses are the Philippine National Schools for the Deaf, Philippine National School for the Blind, Madrigal Village, Marillac Hills, National Orthopedic Hospital, School for Crippled Children, Elks Cerebral Palsy, Nayan ng Kabataan and the Gaches Village.

Enrolment in special schools for both elementary and secondary levels in school year 1967-1968 totalled 2,098 students of which enrolment in elementary accounted for 1,533 while enrolment in secondary accounted for 565. There were higher percentages of males than females in both level.

Jose Fabella Memorial School ranked number one among special schools with the highest number of students enrolled in both secondary and elementary levels. Of the 1,533 students enrolled in elementary, approximately 793 students or representing 51.73 percent of the total were enrolled in Jose Fabella Memorial School. Physically handicapped classes ranked second with 388 students or 23.35 percent, closely followed by the School for the Deaf and the Blind with 331 or 21.59 percent, and lastly by the School for Crippled Children which accounted for 51 students or 3.33 percent.

On the other hand, of the 565 students enrolled in secondary level, bulk was accounted for by Jose Fabella Memorial School approximately 467 students, followed by the School for the Deaf and Blind and School for Crippled Children with 77 and 21 students, respectively.

Table VII.28—ANNUAL ENROLMENT IN SPECIAL SCHOOLS AT THE FIRST AND SECOND LEVELS OF EDUCATION BY SEX, 1967-1968

School	Primary			Intermediate			Elementary			Secondary		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	1,217	781	436	316	201	115	1,533	982	551	565	323	242
School for the Deaf and Blind	266	167	99	65	35	30	331	202	129	77	50	27
Jose Fabella Memorial School	570 <sup>a/</sup>	397	173	223	149	74	793	546	247	467	262	205
School for Crippled Children	26	16	10	25	16	9	51	32	19	21	11	10
Physically Handicapped Classes	355	201	154	3	1	2	356	202	156	0	0	0

a/ Types of Children attending classes in Jose Fabella Memorial School

Unit A - Orphans and Destitutes

Unit B - Negative children of leprosy parents

Unit C - Mentally retarded children including the deaf, the blind and the orthopedically handicapped.

Boys Home - Homeless, displaced, neglected boys who were picked up by the police in Manila and suburbs and those turn over the Armed Forces and Philippine Constabulary. They have no court cases.

Philippine Training Schools for Girls (P.T.S.G.) delinquent girls (Administrative and Court Cases)

Non-inmates - children and dependents of employee.

Source: Bureau of Public Schools, Statistical Bulletin, 1967-1968.

## Adult and Community Education in the Philippines

To minimize illiteracy and to give vocational and citizenship training to adult citizens, Commonwealth Act No. 80 was passed creating the Office of Adult Education. Section 5, Article XIV, of the Constitution of the Philippines states that the government shall establish and maintain an adequate and complete system of public education especially free primary education and training to adult citizens. This was implemented by virtue of Executive Order No. 94 dated October 4, 1947. The newly created division of the Bureau of Public Schools, was named Division of Adult Education but was later renamed Adult and Community Education Division because of its expanded program of activities.

In addition to the annual appropriations for adult education, local government agencies, civic, religious and other organization contribute their share to the promotion of the Adult Education Program. Some of the municipal councils, rotary club chapters, several religious groups and other active civic organizations, set aside a portion of their funds for the operation of literacy classes. Rural organizations, barrio councils and parent-teachers' associations, in addition to their contributions in the form of labor and materials, donate cash to help finance some important community development projects.

In spite of these support from various organizations, the annual appropriations for adult education is insufficient to meet the pressing financial problems involved in the process of educating the over five million illiterates in the country. Since 1962-63 to 1966-67, the biggest annual appropriation given to this Division was P426,964 in 1963-64, which amount was insufficient to carry out the planned program activities. Thus in school year 1967-68, thirteen school divisions were not provided with community adult education supervisors as well as other important staff for adult education classes.

The 1948 population census of the Philippines revealed that of the total 13,300,961 persons, 10 years of age and over, approximately 5,024,656 persons or 37.8 percent were illiterates. However, the 1960 population census disclosed a slight decrease in the percentage of illiteracy with 5,072,124 illiterate persons or approximately 28 percent of the total 18,148,872 persons, ten years of age and over. The 1970 population census, on the other hand, reflected 17.8 percent illiterates.

The intensive drive for literacy was started in school year 1966-1967. About 210,224 students were enrolled from school year 1966-1967 to school year 1968-1969 and approximately 94,105 students were awarded proficiency certificates. The percentage of students awarded proficiency certificates in relation to enrolment decreased considerably from 81.43 percent in 1966-67 to 34.69 percent in school year 1967-1968 and improve slightly in 1968-1969 to 41.26 percent.

Table VII.29—DISTRIBUTION OF SCHOOLS WITH ADULT LITERACY WORK, ENROLLMENT AND NUMBER OF STUDENTS AWARDED PROFICIENCY CERTIFICATES 1966-1969

Region	Number of schools		Enrollment		Students awarded proficiency certificates	
	Number	Percent	Number	Percent	Number	Percent
Total	6,218	100.00	81,481	100.00	24,122	100.00
Northern Luzon	898	13.80	14,490	17.36	7,816	22.69
Central Luzon	301	4.84	4,726	5.66	1,456	4.23
Greater Manila	127	2.04	1,106	1.32	426	1.29
Southern Tagalog	546	8.78	6,543	7.84	4,113	11.94
Bicol Region	369	5.93	6,569	7.97	3,041	8.83
East Visayas	1,811	29.13	19,449	23.70	6,426	18.60
West Visayas	679	10.92	9,681	11.60	2,719	8.06
Eastern Mindanao	1,086	17.47	13,139	15.74	6,082	17.66
Western Mindanao	437	7.03	7,406	8.87	2,207	6.41
Normal/Teachers College	4	0.06	372	0.44	99	0.29

Source: Bureau of Public Schools, Statistical Bulletin, 1968-1969.

### Optional Religious Instruction

Enrolment in optional religious instruction reflected a constant rate of increase from school year 1953-54 to school year 1967-68. In school year 1953-54, total enrolment was 735,441 which formed 20.48 percent of total school enrolment during the period. The number however increase to 2.1 million in school year 1967-68 representing 32.34 percent of total public school enrolment of 6.6 million.

Enrolment in Catholic institutions accounted for an average of more than 9.6 percent of the total enrolment in optional religious instruction, this was followed poorly by enrolment in Aglipayan and Protestant schools which formed an average of approximately 1 percent each. Anglican, Muslim, and other optional institutions combined accounted for the remaining 1 percent.

Of the total 2.1 million students enrolled in optional religious institution in school year 1967-1968, males represented 54.02 percent while females 45.98 percent. A higher percentage of male students were enrolled in Catholic, Muslim, and other minor religious institutions while more males were enrolled in Aglipayan, Anglican, and Protestant courses.

Table VII.30 - NUMBER AND PERCENTAGE OF PUPILS AND STUDENTS ENROLLED  
IN OPTIONAL RELIGIOUS INSTRUCTIONS, BY SEX,  
SCHOOL YEAR 1967 - 1968

Religion	Number enrolled in Optional Religious Instructions			Percentage		
	Total	Male	Female	Total	Male	Female
Total .....	2,127,828	1,149,397	978,431	100.00	54.02	45.98
Aglipayan <sup>1/</sup> .....	62,562	29,266	33,296	100.00	46.78	53.22
Anglican .....	3,046	1,106	1,940	100.00	36.31	63.69
Catholic .....	2,027,134	1,103,616	923,518	100.00	54.44	45.56
Muslim .....	4,527	2,342	2,185	100.00	51.73	48.27
Protestant .....	28,645	12,042	16,603	100.00	42.04	57.96
Others .....	1,914	1,025	889	100.00	53.55	46.45

<sup>1/</sup> Of or pertaining to Gregorio Aglipay, a Filipino priest who in 1902 started a movement for the organization of a Philippine Independent Catholic Apostolic Church.

Source: Department of Education, Bureau of Public Schools, Statistical Bulletin, School Year 1967-1968.

## PUBLIC LIBRARIES

Added to the problems previously mentioned in this chapter which hamper the educational system in the Philippines, is the inadequate supply of books, newspapers, magazines, as well as reference materials for the libraries.

In school year 1965-66, while there were approximately 5,909,025 students enrolled in Philippine public schools comprising of elementary, secondary, and collegiate levels, there were only about 4,476,526 books comprising of reference and library books on hand in public school libraries during the same school year.

Considering the total enrolment and the total number of books during the same school year, it means three students will have to share one book for reference purposes and one library book.

In school year 1967-1968, it was estimated that only one library book and one reference book were available for four students.

With the decrease in enrolment all school levels in 1967-1968 as compared to 1965-1966, the total number of newspaper subscriptions also declined from a level of 136,379 to 133,548 in 1967-1968 while the total number of magazine subscription increased to 87,689 in school year 1967-1968 from 63,117 in 1965-1966. On the whole, total of both subscription showed an increase of 221,237 subscription or an increment of 1.11 percent over the 1965-1966 level. (See Table VII.31)

Table VII.31 - INFORMATION ON PUBLIC SCHOOL LIBRARIES, 1965-66 AND 1967-68

I T E M S	1 9 6 5 - 1 9 6 6				1 9 6 7 - 1 9 6 8			
	Elementary	Secondary	Collegiate	Total	Elementary	Secondary	Collegiate	Total
April, annual enrolment	5,551,310	348,816	8,899	5,909,025	6,116,737	452,771	8,896	6,578,404
Total number of volumes of books on hand	3,671,487	717,335	92,104	4,476,526	2,315,122	752,491	90,346	3,157,959
Reference books	1,743,084	370,772	37,622	2,151,475	1,075,632	397,962	37,430	1,511,024
Library books (excluding textbooks)	1,928,403	347,163	54,482	2,325,048	1,239,490	354,529	52,916	1,646,935
Number of total books per pupil								
Reference book per pupil	0.31	1.06	4.23	0.36	0.18	0.88	4.21	0.23
Library books per pupil	0.35	0.98	6.12	0.39	0.20	0.78	5.95	0.25
Newspaper and Magazines								
Total number of newspaper subscriptions	124,759	11,501	119	136,379	118,644	14,780	124	133,548
Total number of magazine subscriptions	56,840	5,947	330	63,117	77,007	10,277	405	87,689
Total number of magazines and newspapers subscription	181,599	17,448	449	199,496	185,651	25,057	529	221,237
Number of magazine and newspaper subscription per 100 pupils	3.27	5.00	5.04	3.38				
Newspapers per 100 pupils					1.94	3.26	1.41	2.03
Magazines per 100 pupils	-	-	-	-	1.26	2.27	4.60	1.33

Source: Bureau of Public Schools, Statistical Bulletin 1965-1966; 1967-1968.

## Public Libraries

There were 443 libraries throughout the Philippines in 1969 distributed in different cities, provinces and municipalities. Of the total, about 68.63 percent were municipal libraries, 8.35 percent barrio libraries, 8.13 percent city libraries, 7.67 percent deposit libraries, and the remaining 7.22 percent provincial libraries.

The number of libraries increased to 454 as of January 4, 1971. Likewise, barrio libraries increased by 10.35 percent, deposit station libraries by 7.71 percent, provincial libraries by 7.27 percent while city libraries by 8.15 percent. The number of public libraries in the Philippines, by province is shown in Table VII.32.

Table VII.32 - NUMBER OF PUBLIC LIBRARIES IN THE PHILIPPINES, BY CATEGORY AND BY PROVINCE, 1969-1971  
(As of January 4 - Data includes Extension Libraries of the National Library and Manila City Libraries)

Provinces	Total		LIBRARY CATEGORY									
			Provincial		City		Municipal		Barrio		Deposit Station	
	1969	1971	1969	1971	1969	1971	1969	1971	1969	1971	1969	1971
<b>Total</b>	<b>443</b>	<b>454</b>	<b>31</b>	<b>33</b>	<b>26</b>	<b>27</b>	<b>324</b>	<b>322</b>	<b>27</b>	<b>47</b>	<b>35</b>	<b>35</b>
Agusan	1	1			1	1						
Aklan	2	2					2	2				
Albay	8	8	1	1			7	7				
Antique	5	5	1	1			4	4				
Bataan	1	1					1	1				
Batangas	15	15	1		1	2	12	12	1	1		
Benguet	8	8	1	1	1	1	4	4			2	2
Bohol	14	14	1	1			13	13				
Bulacan	9	9	1	1			7	7			1	1
Cagayan	2	2	1	1			1	1				
Camarines Norte	4	3	1	1			3	2				
Camarines Sur	9	9			1	1	8	8				
Camiguin	3	3					3	3				
Capi	2	2	1	1			1	1				
Cavite	3	3					3	3				
Cebu	12	12			1	1	9	9	1	1	1	1
Cotabato	9	9	1	1	1	1	7	7				
Davao del Sur	7	7			1	1	2	2			4	4
Davao Oriental	1	1					1	1				
Eastern Samar	1	1					1	1				
Ilocos Norte	8	8	1	1			7	7				
Ilocos Sur	10	10	1	1			9	9				
Ifugao	1	1										
Iloilo	18	19	1	1			17	18				
Isabela	6	6					6	6				
La Union	8	8	1	1			7	7				
Laguna	7	6	1	1	1	1	4	3			1	1
Leyte	11	11	1	1			10	10				
Manila	19	19			18	18					1	1
Marinduque	1	1					1	1				
Masbate	1	1					1	1				
Misamis Occidental	1	1	1	1								
Misamis Oriental	5	6			1	1	4	4				
Mountain Province	1	1	1	1								
Negros Occidental	23	23	1	1	2	2	17	17	1	1	2	2
Negros Oriental	3	3					3	3				
Northern Samar	4	4					4	4				
Nueva Ecija	13	13	1	1	1	1	11	11				
Nueva Vizcaya	1	1					1	1				
Oriental Mindoro	5	5	1	1			4	4				
Palawan	1	1					1	1				
Pampanga	8	8	1	1			6	6	1	1		
Pangasinan	52	54	1	1	1	1	27	27	21	23	2	2
Quezon	42	43	1	1	1	1	32	32	8	10		
Rizal	26	41	1	1	2	2	11	11	4	8	18	19
Sorsogon	7	7	1	1			6	6				
South Cotabato	2	2					2	2				
Southern Leyte	3	4		1			2	2		1	1	
Sulu	1	1					1	1				
Surigao del Norte	1	1	1	1								
Surigao del Sur	3	3					3	3				
Tarlac	10	11	1	1			8	8		1	1	1
Western Samar	5	4	1	1			4	3				
Zambales	9	9	1	1	1	1	6	6			1	1
Zamboanga del Norte	1	1	1	1								
Zamboanga del Sur	1	1			1	1						

a/ 1 Library temporarily closed.

b/ 2 Libraries temporarily closed.

c/ 3 Libraries temporarily closed.

d/ 1 Library closed.

Source: Department of Education, The National Library Extension Division, Manila City Hall.



## PRIVATE SCHOOLS

### Classification of Private Universities and Colleges

Private universities and colleges in the Philippines are classified according to denomination or religious sect, that is, whether they are sectarian, non-sectarian, Presbyterian, Baptist, Methodist, Protestant, Lutheran or Seventh Day Adventist.

Some catholic universities and colleges are under the supervision of various ecclesiastical orders. St. Xavier College in Cagayan de Oro and Ateneo de Manila, for example, are under the supervision of the Society of Jesus (SJ), while De la Salle College of Manila and suburbs Lipa and Bacolod are under the Christian Brothers. and Don Bosco Technical Institute is under the Salesian Brothers.

Other Catholic schools are under the supervision of the Order of St. Augustine (OSA) such as the University of San Agustin in Iloilo City, the University of Sto. Tomas and San Juan de Letran College are both under the Order of Preacher (OP), and University of San Carlos in Cebu City under the Society of Divine Word (SDW). St. Louis University in Baguio City is under the congregation of the Immaculate Heart of Mary (CICM) while the College of Holy Spirit is under the direction of the Missionary Sisters (SSPS).

Silliman University in Dumaguete City, which belongs to Presbyterian is governed by its ministers and elders, the Philippine Christian College is manned by the Methodists, the Trinity College in Quezon City and Harris Memorial College in Taft Avenue are supervised by Lutherans.

Most universities in the Philippines are non-sectarian. To mention some, they are the University of the East, Far Eastern University, Mapua Institute of Technology, Manila Central University, Adamson University, Centro Escolar University, Feati University, Manuel L. Quezon University, National University, University of Manila, Arellano University, Philippine Women's University and Araneta University.

Some colleges are exclusively for boys such as the San Beda College, De la Salle College, San Juan de Letran College, Ateneo de Manila, San Sebastian College and of course the seminary schools.

Likewise some colleges are exclusively for girls such as the College of Holy Spirit, La Consolacion College, Sta. Catalina College, Our Lady of Loreto Junior College and St. Paul's College.

Other schools in the country are co-educational. It includes some prominent schools such as Adamson University, Far Eastern University, University of Santo Tomas, Lyceum of the Philippines, Arellano University and the University of the East.

There were approximately 621 private colleges and universities in the Philippines in school year 1970-71. The province with the most number of private schools, colleges, and universities in the same school year is Rizal with 64 schools followed by Davao and Cebu consisting of 30 colleges and universities each. Pangasinan came next with 27 closely followed by Negros Occidental with 20 colleges and universities. On the other hand, Manila alone had a total of 64 colleges and universities. The geographical location of these schools is shown in Table VII.33.

## Private Universities and Colleges in the Different Provinces and Cities, 1970-1971

**ABRA**

Bangued — Abra Valley College  
Bangued — Divine Word College

**AGUSAN DEL NORTE**

Butuan City — Agusan College  
Butuan City — Butuan City College  
Butuan City — Father Urios College  
Butuan City — College of Mindanao  
Cabadbaran Northern — College Mindanao  
Nasipit — Northwestern Agusan College

**AGUSAN DEL SUR**

Bayugan — Southern Mindanao Academy  
Bayugan — Agusan del Sur College

**AKLAN**

Kalibo — Aklan College  
Kalibo — Garcia College of Technology  
Kalibo — North Western Visayan College

**ALBAY**

Guinobatan — Republic Colleges  
Legazpi City — Aquinas University  
Legazpi City — Divine Word College of Legazpi  
Legaspi City — St. Agnes Academy  
Libon — Libon Educational Institute  
Locsin — Bicol College  
Locsin — Immaculate Concepcion Hospital School  
Tabaco — Daniel Pena College  
Tabaco — St. Gregory the Great Seminary

**ANTIQUE**

San Jose — St. Anthony College

**BATAAN**

Dinalupihan — Northern Bataan Institute  
Balanga — T. del Rosario Academy

**BATANES**

Basco — St. Dominic School

**BATANGAS**

Balayan — Balayan Institute  
Balayan — Immaculate Concepcion College  
Batangas City — Golden Gate College  
Batangas City — Lyceum of Batangas  
Batangas City — St. Bridget's College  
Batangas City — Western Philippines College  
Bauan — Bauan High School  
Lemery — St. Mary's Educational Institute  
Lipa City — Claro M. Recto Academy  
Lipa City — Our Lady of Lourdes Seminary  
Lipa City — Lipa City College

Lipa City — Philippine Central Academy  
Mabini — Mabini Junior College  
San Jose — Dra. Concepcion A. Aguila Memorial College  
San Jose — Batangas Eastern Academy  
Taal — Rizal College  
Tanauan — Mabini Junior College  
Tanauan — Tanauan Institute

**BOHOL**

Jagna — Central Visayan College  
Tagbilaran City — Colegio dela Medalla Milagrosa  
Tagbilaran City — Divine Word College of Tagbilaran  
Tagbilaran — University of Bohol  
Tagbilaran — St. James College  
Tagbilaran — Immaculate Heart of Mary Seminary  
Tagbilaran — College of the Holy Spirit  
Tagbilaran — Blessed Trinity High School

**BUKIDNON**

Malaybalay — San Isidro College  
Cantapan — San Herminigildo Agro-Industrial School  
Kibawe — Mindanao Central College  
Valencia — San Agustin Technical Institute  
Valencia — Mt. View College

**BULACAN**

Angat — De los Santos Community School  
Baliuag — St. Augustine College  
Baliuag — Baliuag Colleges  
Bocaue — St. Paul College (Branch)  
Guiguinto — Immaculate Concepcion Seminary  
Malolos — Regina Carmeli College  
Pulilan — Pulilan Institute  
San Miguel — St. Paul College  
San Rafael — Bulacan Community College

**CAGAYAN**

Aparri — Lyceum of Aparri  
Aparri — Sacred Heart of Mary's Institution  
Ballesteros — Quezon Colleges of the North  
Sta. Ana — St. Anthony's Academy  
Tuguegarao — Cagayan Teachers College  
Tuguegarao — San Jacinto Seminary  
Tuguegarao — St. Paul's College of Tuguegarao  
Claveria — Taggat Technical Institute

**CAMARINES NORTE**

Capalonga — Capalonga, Institute  
 Daet — Bicol Technical Institute  
 Daet — Heroes Memorial College  
 Daet — Mabini College

**CAMARINES SUR**

Bato — Holy Trinity College  
 Buhi — Buhi Lyceum  
 Goa — St. Paul's Academy  
 Goa — Mabini Memorial College  
 Goa — St. Anthony College  
 Libmanan — Bicol Central Academy  
 Nabua — Ferdinand Vocational School  
 Naga City — Ateneo de Naga  
 Naga City — Colegio de Sta. Isabel  
 Naga City — Naga College  
 Naga City — University of Nueva Caceres

**CAMIGUIN**

Manibajao — Fatima College of Camiguin

**CAPIZ**

Roxas City — Capiz College  
 Roxas City — Colegio dela Purisima  
 Concepcion  
 Roxas City — Filamer Christian Institute  
 Roxas City — Seminary of St. Pius X  
 Roxas City — St. Anthony Hospital  
 School

**CATANDUANES**

Bato — Central Lyceum of Catanduanes  
 Virac — Catanduanes College

**CAVITE**

Cavite City — Cavite Secretarial School  
 Cavite City — San Sebastian Junior  
 College Recoletos  
 Cavite City — St. Joseph College  
 Imus Institute  
 Naic — Western College  
 Tagaytay City — Divine Word Seminary

**CEBU**

Bantayan — St. Paul Academy  
 Bago — Cebu Roosevelt Memorial College  
 Bago — Northern Cebu College  
 Cebu City — Battig Piano School  
 Cebu City — Cebu College of Commerce  
 Cebu City — Cebu Institute of Technology  
 Cebu City — Cebu Polytechnic School  
 Cebu City — Cebu Technical School  
 Cebu City — Cebu Velez General Hospital  
 Cebu City — Colegio dela Immaculada  
 Concepcion  
 Cebu City — Colegio de San Jose  
 Cebu City — Colegio Technical Institute  
 Cebu City — Southwestern University  
 Cebu City — St. Alphonsus Seminary

Cebu City — St. Cecilia's Piano School

Cebu City — St. Theresa's College

Cebu City — University of San Carlos

Cebu City — University of Southern

Philippine Foundation

Cebu City — University of Visayas

Cebu City — Velez College

Cebu City — V. S. Villamor College

Minglanilla — ENAD Junior College

Talisay — Sacred Heart Mission Seminary

Toledo City — Toledo Guillas College

Cebu City — Chong Hua Hospital School

Cebu City — San Vicente School of

Midwifery

Cebu City — Seminario Mayor de San  
 Carlos

Tabogon — St. Isidora Academy

Cebu City — Universal Technical Institute

Cebu City — Universal Radio Institute

**NORTH COTABATO**

Ampatuan — Magsaysay Memorial College

Cotabato City — Albano Commercial  
 School

Cotabato City — Notre Dame University  
 of Cotabato

Insular — Magsaysay Memorial School

Kidapawan — Central Mindanao College

Kidapawan — Notre Dame of Kidapawan  
 College

Magpet — Magpet Christian Academy

Midsayap — Notre Dame of Midsayap  
 College

Midsayap — Southern Christian College

M'lang — Notre Dame of M'lang

Pikit — Union College of Mindanao

Tacurong — Magsaysay Memorial College

Tacurong — Notre Dame of Tacurong

Tacurong — Lyceum of Southern  
 Philippines

**SOUTH COTABATO**

Dadiangas — Emmanuel College

Dadiangas — Magsaysay Memorial College

Gen. Santos City — Notre Dame of  
 Dadiangas

Gen. Santos City — John F. Kennedy  
 Memorial Lyceum

Gen. Santos City — Southern Island  
 Colleges

Kiamba — Notre Dame of Kiamba

Koronadal — Kings College

Koronadal — Notre Dame Marbel College

Koronadal — Our Lady of Perpetual Help  
 Seminary

Maitum — Edenton Mission College

Surala — Alah Valley College  
 Tupi — General Paulino Santos Memorial Institute

Palomok — Jose Valencia Academy

#### **DAVAO DEL NORTE**

Nabunturan — Assumption College  
 Panabo — U.M. Panabo Junior College  
 Samal — Holy Cross of Babak  
 Samal — Samal Institute  
 Tagum — St. Mary's College  
 Tagum — U.M. Tagum Junior College

#### **DAVAO ORIENTAL**

Lupon — Lupon Junior College  
 Mati — Immaculate Heart of Mary Junior College  
 San Isidro — Far East Institute

#### **DAVAO DEL SUR**

Bansalan — Holy Cross of Bansalan  
 Bansalan — U.M. Bansalan Junior College  
 Bansalan — Nazareth High School (Add. courses offered)

Davao City — Assumption College of Davao

Davao City — Ateneo de Davao

Davao City — Brokenshire Memorial Hospital School

Davao City — International Harvardian University

Davao City — Davao Central College

Davao City — Davao Institute of Agriculture Foundation

Davao City — Maternity Hospital School of Midwifery

Davao City — Holy Cross of Davao College

Davao City — Holy Cross of Calinan High School

Davao City — Immaculate Conception College

Davao City — U.M. Guianga Institute

Davao City — University of Mindanao

Davao City — Mindanao School of Midwifery

Davao City — Mount Apo Science Foundation Junior College

Davao City — Toril Community Educational Institute

Davao City — Philippine Women's College

Davao City — St. Peter's College

Davao City — St. Francis Xavier Seminary

Digos — Holy Cross College

Digos — U.M. Digos College

Kiblawan — Assemblyman Mariano Marcos Memorial Foundation College

Malalag — Holy Cross of Malalag

Padada — Southeastern College

Padada — St. Michael's Junior College

Sta. Maria — Agro-Industrial Foundation of Southern Philippines

#### **ILOCOS NORTE**

Laoag City — Northern Christian College

Laoag City — Northwestern College

Laoag City — Divine Word College of Laoag

Badoc — Badoc Vocational School

Batac — Batac Junior College

Laoag City — St. Mary's Seminary

#### **ILOCOS SUR**

Candon — St. Johns' Junior College

Narvacan — Ilocos Central Academy

Sta. Maria — St. Mary's Junior College

Vigan — Divine Word College of Vigan

Vigan — Immaculate Conception Minor Seminary

Vigan — St. Paul College of Ilocos Sur

Vigan — Archdiocesan Major Seminary

#### **ILOILO**

Buenavista — Good Shepherd's Fold Academy

Iloilo City — Assumption Convent

Iloilo City — Cabalum School

Iloilo City — Central Philippines University

Iloilo City — Colegio del Sagrada Corazon de Jesus

Iloilo City — De Paul College

Iloilo City — University of Iloilo

Iloilo City — Lincoln College of Agriculture

Iloilo City — Western Institute of Technology

Iloilo City — Philippine Women's College

Iloilo City — Pius XII Institute

Iloilo City — San Jose College

Iloilo City — Seminario Metropolitano de San Vicente Ferrer

Iloilo City — St. Paul's School of Nursing

Iloilo City — University of San Agustin

Iloilo City — Visayan Central College

#### **ISABELA**

Cabagan — Lyceum of Cabagan

Cauayan — Isabela Colleges

Echague — Lyceum of Echague

Ilagan — St. Ferdinand College

San Mateo — Eveland Memorial Academy

Santiago — La Salette of Santiago

Santiago — North Eastern Foundation College

**MOUNTAIN PROVINCE**

Sagada — St. Mary's School of Sagada

**IFUGAO**

Ifugao — St. Louis School

**KALINGA-APAYAO**

Bulanao — St. William's Academy

Lubugan — St. Theresita's College

**NEGROS OCCIDENTAL**

Bacolod City — La Consolacion College

Bacolod City — La Salle College

Bacolod City — Negros Institute of Technology

Bacolod City — Our Lady of Mercy Hospital and School of Nursing

Bacolod City — Riverside Hospital School

Bacolod City — University of Negros Occidental

Bacolod City — Victory Business Secretarial

Bacolod City — West Negros College

Binalbagan — Binalbagan Catholic College

Binalbagan — Negros Agro-Industrial Institute

Escalante — Mt. Carmel High School

Hiniguan — Hinigaran Institute

Kabankalan — Kabankalan Catholic College

La Carlota City — La Consolacion College

La Catellana — St. Vincent High School (College courses offered)

San Carlos City — Colegio de Santa Rita

San Carlos City — Tanon Academy

Silay — Silay Institute

Sipalay — Cabarrus Catholic School

Victorias — Don Felix Montinola Memorial School

**NEGROS ORIENTAL**

Bais City — Sacred Heart Academy

Dumaguete City — Holy Cross High School

Dumaguete City — Foundation University

Dumaguete City — Siliman University

Dumaguete City — St. Paul's College

Guihulngan — St. Francis College

Sibulan — St. Joseph Seminary

Siquijor — Valencia Junior Institute

Tanjay — Tanjay College

Vallehermoso — St. Francis School of Vallehermoso

**NUEVA ECIJA**

Cabanatuan City — Philippine Wesleyan College

Cabanatuan City — Araullo Lyceum  
Cabanatuan City — Cabanatuan City Colleges

Cabanatuan City — College of the Immaculate Conception

Cabanatuan City — Central Luzon Post Telegraph School

Cabanatuan City — Central Luzon Educational Center

Cabanatuan City — Central Luzon Technical School

Gapan — Divina Pastora College

Gapan — Business School

Guimba — Corregidor College

Rizal — Granary Co-Educational Institution

San Jose — Colleges of the Republic

San Jose — San Jose College

**NUEVA VIZCAYA**

Bayombong — St. Mary's College of Bayombong

Solano — Aldersgate College

**PALAWAN**

Aborlon — San Francisco Xavier High School

Coron — President Kennedy Memorial School

**PAMPANGA**

Angeles City — Angeles University

Angeles City — Holy Angel College

Angeles City — Jocson Junior College

Angeles City — Republic Central College

Angeles City — Sacred Heart Seminary

Apalit — Saint Peter's College

Arayat — Arayat Junior College

Guagua — Guagua National College

Guagua — St. Michael's College

Mabalacat — St. Anthony's College

Macabebe — Pampanga College

San Fernando — Assumption College

San Fernando — St. Scholastica's Academy

San Fernando — Harvardian Colleges

San Fernando — Mater Boni Consillii's Seminary

San Fernando — East Central Colleges

San Fernando — Virgin de los Remedios Hospital School

Sta. Rita — Sta. Rita Colleges of Pampanga

**LAGUNA**

Binan — Grinhar College

Calamba — Don Bosco College

Calamba — Laguna Institute

Paete — Eastern Laguna Institute

Pila — Saint Anthony Junior Colleges  
 San Pablo — Laguna College  
 San Pablo — Southern Luzon Colleges  
 San Pablo — Our Lady of Fatima  
 Conossian College  
 San Pablo — San Pablo College  
 Sta. Cruz — Union College

**LANAO DEL NORTE**

Baloi — Baloi Islamic Institute  
 Iligan City — Iligan Capitol College  
 Iligan City — Iligan City Technical  
 Institute  
 Iligan City — St. Michael's College  
 Iligan City — St. Peter's College  
 Iligan City — Torralba Secretarial &  
 Fashion School  
 Lala — Christ the King High School  
 (offering College courses)  
 Tubod — Mercy Junior College

**LANAO DEL SUR**

Malabang — Kamilol Islam College  
 Marawi City — Dansalan Junior College  
 Marawi City — Jamiatul Philippine Al  
 Islamia  
 Marawi City — Sultan Diampuan College  
 Marawi City — Maahadul Islamic Institute  
 Marawi City — Pacasum Institute  
 Marawi City — Pangarungan Islam College  
 Malungon — Mamintal Junior College

**LA UNION**

Agoo — Congress College  
 Agoo — Saint Mary's Academy  
 Balaoan — Osias College  
 San Fernando — Christ the King College  
 San Fernando — St. Louis College of San  
 Fernando  
 San Fernando — Union Christian College  
 San Fernando — Lorma School of  
 Nursing  
 San Fernando — Northern Luzon  
 Technical Institute

**LEYTE**

Baybay — Franciscan College of the  
 Immaculate Conception  
 Hindang — St. Michael's Colleges  
 Ormoc City — St. Peter's College  
 Ormoc City — Western Leyte College  
 Palo — Sacred Heart Seminary  
 Palompon — Northern Leyte Academy  
 Tacloban City — Holy Infant College  
 Tacloban City — Leyte College  
 Tacloban City — Divine Word University  
 Tacloban City — Teacher's College

**SOUTHERN LEYTE**

Maasin — College of Maasin  
 Maasin — St. Joseph College

**MANILA**

Bambang — Manila Technical Institute  
 Benavidez — St. Francis Xavier Hospital  
 and School of Midwifery  
 Binondo — Binondo Maternity Hospital  
 School  
 Blumentritt — Chinese General Hospital  
 School  
 Claro M. Recto — Abad Santos Educational  
 Institutions  
 Claro M. Recto — San Sebastian College  
 Claro M. Recto — Underwood Business  
 Institute  
 Claro M. Recto — University of the East  
 Craig — Dewey School of Library Science  
 David — P.M.I. Colleges (Philippine  
 Maritime Institute)  
 Don Quijote — St. Jude's School of  
 Nursing  
 Doroteo Jose — Clinica Arellano School  
 Doroteo Jose — Mapua Institute of  
 Technology  
 Espana — University of Santo Tomas  
 Gagalangin — Scout Ramos V. Albano  
 Memorial School  
 Gastambide — Mary Chiles Hospital  
 School  
 Herran, Paco — Concordia College  
 Intramuros — Colegio de San Juan de  
 Letran  
 Intramuros — Lyceum of the Philippines  
 Intramuros — Philippine College of  
 Optometry  
 Jorge Bacobo — Center for Research and  
 Communication  
 Jose Abad Santos — Emmanuel Coop.  
 Hospital School  
 Legarda — Arellano University  
 Legarda — Manila Quezon College  
 Legarda — Our Lady of Loreto Junior  
 College  
 Legarda — Sta. Catalina College  
 Leon Guinto — Asian Social Institute  
 Leon Guinto — St. Scholastica's College  
 Lepanto — National College of Business  
 and Arts  
 M. Jhocson — National University  
 Malate — St. Paul's College of Manila  
 Maria Clara — Family Clinic and Hospital  
 School  
 Mendiola — Centro Escolar University

Mendiola — College of the Holy Spirit  
 Mendiola — La Consolacion College  
 Mendiola — San Beda College  
 Mendoza — Philippine College of Business and Science  
 Mendoza — Technological Institute of the Philippines  
 Padre Algue — Chiang Kai Shek College  
 Padre aFura — Ateneo de Manila University  
 Plaza del Carmen — St. Rita's College  
 Quezon Blvd. — Far Eastern University  
 Quezon Blvd. — Central Institute of Technology  
 R. Hidalgo — Manuel L. Quezon University  
 Raon — Manila College of Optometry  
 Sales — Philippine College of Criminology  
 Sampaloc — Philippine School of Business Administration  
 Sampaloc — St. Jude's School of Nursing  
 Sampaloc — University of Manila  
 San Marcelino — Adamson University  
 San Marcelino — St. Theresa's College  
 San Miguel — De Ocampo Memorial School  
 Santa Ana — St. Anne's Hospital School  
 Santa Cruz — Feati University  
 Soler — Gregg Business School  
 Taft Avenue — De La Salle College  
 Taft Avenue — Francisco College  
 Taft Avenue — Philippine Women's University  
 Tanduay — National Teacher's College  
 Tennessee — Philippine Christian College  
 U.N. Avenue — Harris Memorial College  
 U.N. Avenue — Marian Hospital School  
 Zurbaran — Manila Central University

**RIZAL**

Antipolo — Our Mother of Perpetual Help Juvenile  
 Caloocan City — Araneta University Branch  
 Caloocan City — Holy Rosary College  
 Caloocan City — Manila Central University  
 Caloocan City — Martinez Memorial Hospital School  
 Caloocan City — Philippine Union College  
 Caloocan City — University of the East (Branch)  
 Makati — Assumption Convent  
 Makati — Don Bosco Technical Institute  
 Makati — San Carlos Seminary  
 Makati — St. Paul Seminary  
 Malabon — Araneta University

Malabon — Arellano Memorial College  
 Malabon — Dalubhasang Epifanio de los Santos  
 Mandaluyong — Don Bosco Technical Institute  
 Mandaluyong — Jose Rizal College  
 Mandaluyong — La Salle Green Hills  
 Mandaluyong — Namei Polytechnic Institute  
 Marikina — Roosevelt College  
 Morong — Community College  
 Paranaque — Airline & Travel Agency Personnel Training School  
 Paranaque — Generosa de Leon Memorial Junior College  
 Paranaque — Leyba Clinic & Maternity Hospital  
 Paranaque — St. Paul's College  
 Paranaque — St. Rita's School  
 Paranaque — Victor R. Medina Junior College  
 Pasay — Lacson College  
 Pasay City — San Juan de Dios Hospital School  
 Pasay City — Southeastern College  
 Pasig — Pasig Catholic College  
 Quezon City — Ateneo de Manila  
 Quezon City — Berchman College  
 Quezon City — Mt. Carmel School  
 Quezon City — Far East Military Academy  
 Quezon City — Immaculate Heart of Mary College  
 Quezon City — Jose Abad Santos Memorial School  
 Quezon City — Maryknoll College  
 Quezon City — Mother of Life Catechetical Foundations  
 Quezon City — U.E. School of Music and Arts  
 Quezon City — Our Lady of the Angels Seminary  
 Quezon City — Police Institute of the Philippines  
 Quezon City — Polytechnic College of the Philippines  
 Quezon City — Quezon Memorial College  
 Quezon City — Republican College  
 Quezon City — Sienna College  
 Quezon City — St. Catherine Military Academy  
 Quezon City — St. Catherine Hospital School  
 Quezon City — St. Joseph's College  
 Quezon City — St. Luke's School of Nursing  
 Quezon City — St. Mary's College

Quezon City — St. Paul's College  
 Quezon City — Quezon City Vocational School  
 Quezon City — St. Theresa's College  
 Quezon City — Sta. Theresita's Hospital School  
 Quezon City — Stella Maris  
 Quezon City — Trinity College  
 Quezon City — University of the East  
 Quezon City — Dominican College  
 Quezon City — San Juan Hospital School  
 Tanay — San Ildefonso College  
 Taytay — Juan Sumulong Memorial Junior College  
 San Juan — Aquinas School  
 San Juan — Dominican College  
 San Juan — Florida Institute

**MARINDUQUE**

Boac — Immaculate Concepcion Academy  
 Sta. Cruz — Malindang Institute  
 Sta. Cruz — Sta. Cruz Institute

**MASBATE**

Cataingan — Ovilla Institute of Arts & Trades  
 Masbate — Liceo de Masbate  
 Masbate — Osmena College  
 Masbate — Ovilla Technical College  
 Masbate — Masbate College  
 Placer — Southern Masbate Roosevelt Institute

**MINDORO OCCIDENTAL**

Sablayan — San Sebastian School  
 San Jose — Divine Word College of San Jose

**MINDORO ORIENTAL**

Bongabong — Eastern Mindoro College  
 Calapan — Mindoro College  
 Calapan — St. Augustine Seminary  
 Naujan — Agustin Gutierrez Memorial Academy  
 Pinamalayan — Abada Memorial College  
 Roxas — Roxas College

**MISAMIS OCCIDENTAL**

Calamba — Liberation Institute  
 Calamba — Sacred Heart High School  
 Jimenez — St. John the Baptist College  
 Oroquieta — Stella Maris College  
 Oroquieta — Occidental Misamis College  
 Oroquieta — Southern Capital College  
 Oroquieta — Oroquieta Vocational School  
 Ozamiz City — Harvardian College  
 Ozamiz City — Immaculate Concepcion College  
 Ozamiz City — Medina Hospital & School of Midwifery

Ozamiz City — Ozamiz City College  
 Ozamiz City — Misamis Technical School

**MISAMIS ORIENTAL**

Balingasag — St. Peter's College  
 Balingasag — Sta. Rita's School  
 Cagayan de Oro — Liceo de Cagayan  
 Cagayan de Oro — Lourdes College  
 Cagayan de Oro — Northern Mindanao Technical Institute  
 Cagayan de Oro — Cagayan de Oro College  
 Cagayan de Oro — Xavier University  
 Cagayan de Oro — Cagayan de Oro Southern Technical Institute  
 Cagayan de Oro — Tejero Institute  
 Cagayan de Oro — Zamora Music School  
 Gingoog City — Christ the King College  
 Gingoog City — Gingoog City Junior College  
 Talisayan — Mt. Carmel College

**BENGUET**

Baguio City — Baguio College  
 Baguio City — University of Baguio  
 Baguio City — Lyceum of Baguio  
 Baguio City — Immaculate Heart Mission Seminary  
 Baguio City — Pines City Doctor's Hospital School of Nursing  
 Baguio City — Seminario Mayor Recoletos  
 Baguio City — St. Louis University  
 Baguio City — Pelletier Hills Training School  
 Baguio City — St. Louis School Center  
 Baguio City — Pines City Doctor's Hospital School of Nursing

**PANGASINAN**

Alaminos — Great Plebian College  
 Alaminos — University of Pangasinan School of Fisheries  
 Anda — Asbury Junior College  
 Binmaley — Mary Help of Christian Seminary  
 Bolinao — Cape Bolinao High School  
 Bolinao — University of Pangasinan of Farm School  
 Dagupan City — University of Pangasinan  
 Dagupan City — Luzon Colleges  
 Dagupan City — Northwestern Educational Institute  
 Dagupan City — Orient College  
 Lingayen — Adelphi College  
 Lingayen — Far Eastern Business Institute  
 Lingayen — Luzon Business School  
 Lingayen — Pangasinan Memorial College  
 Lingayen — St. Columban's College



Malasiqui — Agro Valley College  
 San Carlos City — Polaris College  
 San Carlos City — San Carlos College  
 San Carlos City — Virgen Milagrosa  
 Hospital School  
 San Nicolas Villaverde Academy  
 Tayug — Luna College  
 Tayug — Zaragosa College  
 Urdaneta — Divine Word Academy  
 Urdaneta — Ramon Magsaysay Junior  
 College  
 Villasis — Pacifican College  
 Villasis — Saint Anthony Abbot Academy

**QUEZON**

Atimonan — Quezon Memorial School  
 Baler — Mt. Carmel College  
 Calauag — Calauag Central College  
 Candelaria — Tayabas Western Academy  
 Gumaca — Eastern Quezon College  
 Lopez — Eastern Tayabas College  
 Lopez — Southern Pacific Colleges  
 Lucena City — Luzonian University  
 Lucena City — Sacred Heart College  
 Tagkawayan — Our Lady of Lourdes  
 Academy  
 Tagkawayan — Tagkawayan High School

**ROMBLON**

Cajidiocan — Sibuyan Colleges  
 Odiongan — Romblon Colleges

**SAMAR (Eastern)**

Borongan — St. Joseph Colleges  
 Guiuaunn — Assumption College of  
 Samar

**SAMAR (Northern)**

None

**SAMAR (Western)**

Calbayog City — Christ the King College  
 Catbalogan — Sacred Heart College  
 Catbalogan — Samar College

**SORSOGON**

Bacon — Annunciation College  
 Bulan — Colegio dela Immaculada  
 Concepcion  
 Bulan — Quezon Academy  
 Gubat — Encinas Institute  
 Irosin — College of the Holy Spirit of  
 Irosin  
 Sorsogon — Colegio dela Milagrosa  
 Sorsogon — Our Lady of the Penafrancia  
 Seminary

**SULU**

Bongao — Notre Dame of Bongao  
 Jolo — Notre Dame of Jolo College  
 Jolo — Philippines Muslim College  
 Siase — Notre Dame of Siase  
 Siase — Central Sulu College

**SURIGAO DEL NORTE**

Surigao — Northwestern Mindanao  
 College  
 Surigao — San Nicolas College

**SURIGAO DEL SUR**

Bislig — Andres Soriano Junior College  
 Bislig — Bislig Bay College  
 Cantilan — St. Michael's School  
 Tandang — St. Theresa College

**TARLAC**

Camiling — Camiling College  
 Gerona — Gerona Junior College  
 Paniqui — Central Institute of  
 Technology  
 Paniqui — Dr. Nicanor Reyes Memorial  
 Colleges  
 Tarlac — College of the Holy Spirit of  
 Tarlac  
 Tarlac — Osias College

**ZAMBALES**

Olongapo City — Columbian College  
 San Narciso — Zambales Academy  
 San Narciso — Magsaysay Memorial  
 College

**ZAMBOANGA DEL NORTE**

Dipolog City — Andres Bonifacio College  
 Dipolog City — St. Vincent's College  
 Liloy — Lisun Institute

**ZAMBOANGA DEL SUR**

Basilan City — Juan A. Alano Memorial  
 School  
 Basilan City — Claret College of Isabela  
 Dumalinao — S.M.C. Agro-Technology  
 Ipil — Marian College  
 Ipil — Lyceum of the South  
 Margosatubig — Pox College  
 Molave — Molave Institute  
 Pagadian — Southern Mindanao College  
 Pagadian — St. Columbian School  
 Zamboanga City — Ateneo de Zamboanga  
 Zamboanga City — Zamboanga A. E.  
 College

## Specialized Technical Schools

Other private educational institutions are better known for their specialized lines such as technical, agricultural or vocational. Technical schools include Mapua Institute of Technology, Feati Institute of Technology, Guzman Institute of Electronics, Don Bosco Technical Institute and the Manila Technical Institute. Agricultural schools include Davao Agro-Industrial Foundation of Southern Philippines in Davao del Sur; Negros Agro-Industrial Institute in Negros Occidental; the Central Luzon Educational Center in Nueva Ecija, which offers agricultural education, home technology, swine raising and poultry raising; University of Pangasinan Farm in Bolinao, Pangasinan; and the San Herminigildo Agro-Industrial School in Lantapan, Bukidnon which offers secondary education aside from agricultural-technology.

Most vocational schools can be found in the Greater Manila area and some provinces. In Manila are Aguinaldo Institute, Asian Vocational School, Beauticians Academy, Fil-American Institute of Fashion, Madame Kolleremann School of Fashion, Madonna School of Costume Design, and Maffei Academia de Artes del Hogar, all situated in the greater Manila.

Suburban vocational schools include Rizal Vocational School in Mandaluyong, Rizal; Luna Vocational School in Pasay City; Quezon City Vocational Institute; San Francisco Vocational School, and St. Francis Vocational School in Quezon City. Vocational schools in the provinces include the Mercelinean Vocational School in Zambales and Surigao Vocational Institute in Surigao del Sur.

Seminary Schools include Our Lady of Lourdes Seminary in Lipa City, San Jacinto Seminary in Tuguegarao, Cagayan, Seminary of St. Pius X in Roxas City, Divine Word Seminary in Tagaytay City, Seminario Mayor de San Carlos in Cebu City, Our Lady of Perpetual Help Seminary in Koronadal, Cotabato, St. Mary's Seminary in Laoag City, Seminario Metropolitano de San Vicente Ferrer in Iloilo and the Seminario Mayor Recolectos in Baguio City.

Schools of Nursing are mostly found in big cities some of which include among others St. Paul's School of Nursing in Iloilo City, Lorman School of Nursing in La Union and Our Lady of Mercy Hospital and School of Nursing in Bacolod.

Schools of Midwifery are also distributed to the different provinces like the San Vicente School of Midwifery in Cebu City, Davao Maternity Hospital School of Midwifery in Davao City and Medina Hospital and School of Midwifery of Ozamis, Misamis Occidental.

Some private educational institutions are named after its specialized courses offered such as the Police Institute of Training and Leadership which aims to train youth as future patrolman in the country, the Philippine College of Optometry in Intramuros in Greater Manila which specializes in Optometry, the Center for Research and Communication in Jorge Balcobo in Manila which has launched a continuing series of seminars geared to meet the needs of executives to prepare them for better understanding of their functions covering the most important aspects of management, communications and research; the Airline and Travel Agency Personnel Training School in Parañaque, Rizal which aims to impart training on airline and travel. Another school which specializes in one field of study is the Dewey School of Library Science in Sampaloc, Manila.

The Philippine College of Criminology in Manila is one of the most prominent colleges in criminology which aims to equip its graduates of the most modern and effective ways of combating criminals.

Pangasinan School of Fisheries in Alaminos, Pangasinan, is an outstanding school in its specialized course in fisheries, while St. Catherine Military Academy is the only military academy housed in Quezon City to provide military education to young girls of Manila and its suburbs.

For music-minded people, there are the U.P. Conservatory of Music and the University of the East School of Music and Arts in Quezon City, and the University of Santo Tomas School of Music and Arts which are equipped with modern facilities to serve its purposes.

## UNIVERSITY OF SANTO TOMAS

The University of Santo Tomas is the oldest catholic university in the Philippines. It was founded on April 11, 1611 by the Superiors of the Dominican Province of the Most Holy Rosary. As a college, it enjoyed the authority to confer academic degrees way back in 1619. It was finally raised by Pope Innocent X on November 20, 1655 to the status of a University for ecclesiastical and civil studies when the authority to assign academic degrees became permanent. This was subsequently confirmed by Pope Innocent XI, Clement XII, Leo XIII and by the Sacred Congregation of Seminaries and Universities of Studies with the approval of Pius XII.

The history of the University revealed that Leo XIII granted the University the title of "Pontifical" in 1902, while Charles III, King of Spain, had bestowed upon it the title of "Royal" in 1785. Pope Pius XII enhanced it with the new title of "The Catholic University of the Philippines" in 1947.

During his recent visit to the University, On November 28, 1970, Pope Paul VI described the educational institution as "One of the most renowned for the richness of its history, one of the most important in number of students and one of the most well-known for the care it devotes to education of high quality".

The campus is housed on a 21-hectare site in the Sampaloc area of Manila, occupying a giant city-block, famous for its school grounds, architecture and central gardens.

The year 1972, is the 25th year of educational service of the University of Santo Tomas to the Philippine Republic, where it previously served with the Philippine Commonwealth for 11 years; with the U.S. government for 37 years and with the Spanish administration for 287 years.

At present, the University is governed by the Board of Trustees, of which Filipinos compose the majority. The present Rector, a holder of a Doctorate in Sacred Theology is Father Leonardo Z. Legaspi.

### Enrolment

The University population for school year 1971-1972 reached a total of 32,862 including enrolment at the primary, elementary and high school levels. Male students comprised 13,630 or 41 percent while female counterparts consists of 19,232 or 59 percent of the total enrolment for school year 1971-1972. Similarly, male students reflected a total of 13,518 or 41 percent while female students garnered 19,140 or 59 percent of the total enrolment for the school year 1970-1971. The students come from 66 provinces and 49 cities throughout the Philippines, as well as foreign countries such as Africa, Taiwan, India, Indonesia, Korea, Spain, Thailand, U.S., Vietnam and Japan.

### Civil Faculties and Colleges

There are 12 civil faculties and colleges in the University of Santo Tomas: College of Civil Law (1734), Medicine and Surgery (1871), Pharmacy (1871), Arts and Letters (1879), Education (1926), Science (1926), Architecture and Fine Arts (1930), Commerce and Business Administration (1933), Foreign Service (1937), Graduate School (which was established in June, 1938 for the purpose of placing under it all graduate courses therefore operated by the various faculties and colleges), Normal (1940), and Music (1946).

The three ecclesiastical faculties are those of Sacred Theology, Canon Law and Philosophy, which have conferred the corresponding degrees from the time the University was founded.

### University Facilities

The University is not only known for its richness in history but also for its modern university laboratories. Its museum is the largest and most extensive of its type in this part of the world. The library contains rare and ancient manuscripts and Filipiniana materials unmatched by any library in the Far East. The printing press is the oldest in the Philippines.

### Community Services

The services to the community of this university, include the famous medical missions sent for the past ten years to all major islands of the country for indigent patient, and the charity hospital, biggest hospital of its kind in the Philippines which has attended to hundreds of poor patients from Manila and other cities and towns.

### Alumni

Santo Tomas alumni include four Presidents of the Republic namely, Manuel L. Quezon, Sergio Osmena, Sr., Jose P. Laurel, Sr., and Diosdado Macapagal, and numerous national heroes including Dr. Jose Rizal, Antonio Ma. Regidor, Joaquin Pardo de Tavera, Marcelo del Pilar, Graciano Lopez Jaena, Apolinario Mabini, Antonio Luna, Emilio Jacinto, Pedro Paterno, and Felipe Agoncillo. In addition, it includes some of the country's foremost scientists, writers, educators, leaders of the catholic hierarchy, lawyers, and government officials, including Fernando Lopez and Roberto Concepcion, the present vice-president of the Philippine Republic and the Chief Justice of the Supreme Court, respectively.

## DE LA SALLE COLLEGE

De La Salle College is a catholic institution, granted a charter to confer Bachelor's degree by the Department of Education on November 11, 1917. It graduated its first class in 1920 where four students were awarded the degree of Bachelor of Arts. Five years later, ten students were graduated with the degree of Associate in Commercial Sciences. In 1930, the curriculum for the School of Commerce was expanded to lead to the degree of Bachelor of Science in Commerce. The College resumed operations in 1946, after World War II, and enriched its Commerce Curriculum to a four-year program. In succeeding years, the School of Engineering (1948), Liberal Arts (1953), and Education (1959) were established.

De la Salle College is dedicated to the christian education of the youth in the Philippines. It is a charter member of the Catholic Education Association of the Philippines, the Christian Brother's Educational Association, the Association of Southeast Asian Institutions of Higher Learning, the International Federation of Catholic University and the International Association of Universities. It is also a charter member of the Philippine Accrediting Association of Schools, Colleges and Universities.

### Faculty

The faculty members comprise of American, Asian, and European-trained religious and lay instructors. The majority of the staffs are professional educators who devote their whole day to teaching, to research and to professional activities.

### Administration

The President is the chief administrative officer of De La Salle College. The Vice-President is responsible for the administration of their staffs, while the Academic Vice-President takes charge of particular matters pertaining to admission, graduation, supervision of instruction, the curriculum, class facilities, attendance, personal guidance, recording, and scholastic organizations.

## SAN JUAN DE LETRAN COLLEGE

The Colegio de San Juan de Letran was established in 1620 by Don Juan Gurneco, a Spanish soldier who later became a Dominican lay brother. Its original purpose was to provide a decent dwelling place for homeless boys in the City of Manila, to educate them and at the same time, to teach them become good christian citizens. In 1940, it merged with another charitable institution established for the same purpose by the Dominican lay brother Diego de Sta. Maria, O.P. (Order of Preacher). It has then remained one of the best and most renowned educational institutions in the Philippines.

After more than three centuries of existence, the Colegio de San Juan de Letran can still boast not only of being the oldest college in the Philippines but also of counting among its illustrious alumni the Blessed Vicente Liem de la Paz, O.P., Martyr of the Faith and the late President Manuel L. Quezon.

### Courses Offered

The Letran College offers Commerce, Liberal Arts, Master's in Business Administration, Intensive Speech Course, and Management and Research Center, with grade school and high school. The Management and Research Center established in August, 1967, has embarked on a continuing series of seminars which are geared to meet the needs of executives, potential executives and staff members.

## THE COLLEGE OF THE HOLY SPIRIT

The College of the Holy Spirit is a catholic institution for the higher education of women which is under the direction of the Missionary Sisters (SSPS). The Holy Ghost College, its former name, was founded in 1913, primarily aimed for the christian formation of young women in accordance with the ideals of Holy Mother Church. The invitation of Archbishop J. Harty inspired the Missionary Sisters, to establish a Catholic School for Girls in the district of Sampaloc, Manila. So on June 17, 1913, the building at 663 Legarda Street opened for 26 kindergarten and primary grade pupils. On June 7, 1920, the high school was opened. Within the same year, due to lack of rooms in the old building, the corner-stone for the new building at 163 Mendiola Street was built. The steady increase of students called for new rooms, for additional construction of buildings and warranted the opening of new departments. Added were the auditorium, the elementary annex, and the kindergarten. Recent development was the construction of the College Department Building with its Home Economics annex and a modern elementary building.

Courses offered are Liberal Arts and Sciences, Commerce, Pharmacy, Fine Arts, and Music.

## UNIVERSITY OF THE EAST

About six months after the Philippines received its independence from the United States, three enterprising gentlemen, Francisco Dalupan, Santiago dela Cruz, and Jose Torres, organized and conducted two CPA (Certified Public Accountant) review classes in rooms rented from the Malayan Colleges on Dasmariñas street, for the CPA reviewers in 1947. This was the "Shoe string" beginning of the PCCBA (and ultimately the U.E.) which opened barely five months later, in June 1947, welcoming its 351 enrollees (213 of whom were Commerce students), in a refurbished, remodeled building on R. Papa Street. To house the expanding volume of enrollment, Mr. Dalupan acquired 10,000 square meter lots on Azcarraga Street, owned by a real estate company, whose principal owner was an American. He had to go yet to the United States to close the deal. The Construction of Dalupan Hall was patterned after the University of Miami. In 1948-1949 when the school year began the PCCBA had

a building and a campus of its own. Now, the University of the East marks its twenty-five years of successful achievement providing educational opportunity to the masses. The following are the different fields of education offered by the University of the East.

(1) *College of Business Administration*

It is the largest unit of the University, which has undergone two name changes; originally the Philippine College of Business Administration, it became the College of Commerce (of the UE) in 1950, and then finally the College of Business Administration in 1963.

(2) *School of Secretaries*

Opened in the last quarter of the 1947-1948 school year, the Secretarial Department was an auxiliary of the PCCBA.

With few typewriters, it offered a one-year secretarial course leading to a diploma Certificate in Secretarial Science and a two-year course leading to a diploma in Executive Secretarial Science. Later, this two-year course led to an Associate in Business Administration degree. The Associate in Business Administration degree was changed to Associate in Secretarial Administration in 1965.

(3) *College of Arts and Sciences*

The PCBA gave birth to a new unit, the College of Liberal Arts on July 1, 1948. It consisted of a faculty of 65 and an enrolment of 309, accommodated in Dalupan Hall. It was renamed the College of Arts and Sciences.

(4) *College of Dentistry*

Same students petitioned the Board for a College of Dentistry about the time the College of Liberal Arts was established. The Philippine College of Dental Medicine (now the College of Dentistry) was opened in the second semester of the 1948-1949 school year. The College is now located in the Quezon City campus building with the school of Music and Arts. A new section, the "Cleft Lip and Palate Section" was added in 1969.

(5) *College of Education*

The Philippine College of Commerce and Business Administration offered education subjects to students of commercial education when it started operating. In 1949, College of Education was established. At the beginning, there were only eleven faculty members for the 365 students who had enrolled.

(6) *College of Law*

The College of Pharmacy was pruned off in 1949. In its place, the College of Law was founded in 1950. It offered only the first year subjects of the Law curriculum. The first enrollees (134 students) were taught by a faculty force of six. The enrolment rose steadily, and within a few years, the complete law curriculum was offered.

(7) *College of Engineering*

The plans for establishing began to materialize in 1956, with the construction of the five-story Engineering Building which was completed in the latter part of 1957. Curriculum expansion began as early as 1959, when the 4-year course leading to BS Electronics was offered. In the 1963-1964 school year, the 5-year Curriculum leading to BS Electronics and Communications Engineering was added. Again, in 1968, Dean Alma Jose organized the BS Civil Engineering Course and a review class for the Government Board Examination. The different curricula were revised in 1969 to include Courses like Elementary Earthquake Analysis for Civil Engineers, and Industrial Plant Design.

(8) *Graduate School*

The Graduate School was organized in 1948 to give an opportunity to graduate students and professionals.

The Graduate School of Education was established in 1963 in answer to the pressing need of developing educational leaders.

*(9) CPA Review School*

Two sets of review courses are offered — The February group holds two 3-hour sessions while the May group offers three 4-hour sessions.

*(10) College of Medicine*

It was organized in 1955 housed in a separate campus on Aurora Blvd. in Quezon City. Since the college was dedicated to "Medical education, medical research and the alleviation of human sufferings", the Board of Trustees (upon the suggestion of President Dalupan) created the College of Medicine as its nucleus. On May 17, 1957 the U.E. Ramon Magsaysay Memorial Medical Center in honor of the late President Magsaysay was established. The Center was inaugurated on July 3, 1957.

*(11) College of Nursing*

The U.E. RMMC initiated a 5-year collegiate program leading to Bachelor of Science in Nursing. In 1958, the College of Nursing came into being as an autonomous professional college within the organizational framework of the Medical Center. It was formally recognized by the Bureau of Private Schools on May 16, 1962, a few weeks after it had graduated 30 students.

*(12) School of Music and Fine Arts*

It was founded on July 5, 1964 under the U.E. Research Center for Sciences, Humanities and Culture and was incorporated on October 4, 1964. It is housed in the 4th and 5th floors of the Research Center Building in Quezon City, consisting of three units, the School of Music, the School of Fine Arts, and the Ballet School.

**Honorary Degrees Awarded**

The U.E. has granted honorary doctorate degrees through the years to eminent citizens of the world. Late President Ramon Magsaysay was conferred with a degree of Doctor of Laws on January 25, 1957; Don Andres Soriano, philanthropist, Doctor of Economics on April 21, 1963; Sir Percy Claude Spender, President of the International Court of Justice, a Doctor of Laws degree on Feb. 10, 1966; President Ferdinand Marcos, Doctor of Laws on May 14, 1967; Carlos P. Romulo, the Secretary of Foreign Affairs, Doctor of Laws, on February 14, 1969; Richard Emmet Berlin, the President of Hearst Corporation, Doctor of Laws, on February 9, 1971.

**Enrolment (U.E.)**

Enrolment for school year 1970-1971 showed an appreciable total of 108,344 for both semesters, covering College of Business Administration, Law, Education Medicine, Dietetic Internship, Nursing, Dentistry, Liberal Arts and Science, Engineering, Vocational Engineering, Secretarial, High School, Elementary CPA and Bar Review, Graduate Schools of Business Administration and Education, including Caloocan Campus and Cultural Sector. Enrolment in Business Administration had the greatest number totalling 51,937 while the least enrolment was attributed to Dietetic Internship having 12 enrollees only for both semesters for school year 1970-1971. There was a total of 1,759 reviewees for CPA while a total of 189 were reviewees of Pre-Bar Examination.

**THE FAR EASTERN UNIVERSITY**

The Far Eastern University was founded in 1928. It was the result of a merger of two of the Philippine's private education pioneers, the Far Eastern College and the Institute of Accounts Business and Finance. The Far Eastern College was founded in 1919, the Institute of Accounts, Business and Finance, in 1928. The FEU, striking out for a distinctive identity in 1934, designated its college units as institutes. The Far Eastern College was thus renamed — Institute of Arts and Sciences, its present name. Now the University operates the following academic departments: Institute of Accounts, Business and Finance, Institute of Arts and Science, Institute of Education, Institute of Law, Institute of Medicine, Institute of Nursing, Institute of Technology, Institute of Graduate Studies, Boys' High Schools, Girls' High School, and Elementary School.

Far Eastern University is a non-sectarian institution. It gives all religious groups freedom to organize themselves within the campus, subject to learn and to follow University regulations. The Student Catholic Action and the Christian Movement are two of the most active student religious groups in the university.

### University Facilities

The university offers health and hospitalization services to the students as well as to the employees.

A bookstore and the canteens are operated by the FEU Consumer's Cooperative, Inc., whose members are students, employees and faculty members of the University.

Cultural appreciation in Far Eastern University is evidenced by its auditorium which, in the absence of a national theatre, has served as one since its completion in 1950.

## ADAMSON UNIVERSITY

On June 20, 1932, Dr. George Lucas Adamson founded the Adamson School of Industrial Chemistry located at the Paterno Building, Plaza Goiti, Manila. In 1934, a technical high school of Industrial Chemistry was added. On November 12, 1935, the civil, chemical, and industrial courses were offered. On February 19, 1936, the Adamson School of Industrial Chemistry was incorporated into Adamson School of Industrial Chemistry and Engineering. Other courses were subsequently added like the Mining Engineering on June 10, 1936, Graduate Studies for Master of Science in Chemistry on May 10, 1939, Education, Liberal Arts (Pre-Law), and Chemical Research on November 11, 1939, Commerce and Business Administration and Preparatory Medicine on June 19, 1940 and Junior Normal.

On February 5, 1941, the Adamson School of Industrial Chemistry and Engineering, which had been transferred to Intramuros, became a full-fledged university under the name of Adamson University. Shortly after, the following schools were opened: College of Law, School of Architecture, Electrical Engineering and Mechanical Engineering.

During the American Military Operations for the liberation of the Philippines, the University was burned. The University opened its post-war classes in the building owned by the Vincentian Fathers located in San Marcelino St., Manila. After the war, these were the following courses added: Liberal Arts (A.B.) on May 28, 1947; Pharmacy on June 5, 1947; Graduate Studies for Masters of Arts in Education on October 21, 1947; Practical Industrial Chemistry on November 18, 1947; Department of Naval Science and Tactics on April 16, 1949; and School of Foreign Service on November 9, 1949.

On December 4, 1964, the Adamson University took on a new character. The Adamson Ozanam Educational Institution, Incorporated, a non-stock, non-profit corporation was established, and the Vincentian Fathers took over the reins of the University Administration.

## UNIVERSITY OF MANILA

The University of Manila is an integral part of the system of education under the Republic of the Philippines. It traces its origin to the former Instituto de Manila, which was founded in Oct. 5, 1913, upon the initiative of Dr. Apolinario G. de los Santos. This school campus originally offered primary and elementary and high school courses in 1914 in a leased building on the corner of Madrid and Penarubia Street, Binondo District. It later on transferred to its own building in Sampaloc District where it is presently housed. Its original incorporators unanimously agreed, on the occasion of the 18th anniversary of the founding of the institution, to effect a reorganization. Thus, on November 3, 1921, under the provisions of Act No. 1459 of the former Philippine Legislature, the U.M. was reincorporated. Elementary School and High School, as its first course offered, started in 1914-1915; College of Law in March, 1919;



College of Liberal Arts in 1920-1921; College of Philosophy and Letters in 1922-1923; College of Business Administration in 1922-1923; College of Education in July, 1923; Baliwag Institute (in Bulacan) in 1925 with Dagupan Institute in Pangasinan; Department of Graduate Studies (M.A. in Education) in 1933-1934; Junior Normal College in 1934-1935; Dept. of Graduate Studies (LIM) in 1941-1942; College of Engineering in December 1945; Academy of Manila in February 1, 1946; School of Foreign Service in May 3, 1946; Department of Graduate Studies (M.A. in History) in May 17, 1951; Senior Normal College in June, 1951; College of Criminology and Penology in March, 1963 and Graduate Studies (M.A. Pub. Adm.) in July 1, 1966.

### **Campuses, Buildings and Facilities**

There are two separate campuses, one in Sampaloc district and the other, in Tondo district. This university is equipped with modern facilities which are increased and improved as conditions warrant. It has one of the best libraries in the Philippines. The museum is devoted to zoological collections including animals, birds, butterflies, insects, and reptiles, rare skeleton, skull and marine animals.

## **MANILA CENTRAL UNIVERSITY (MCU)**

The Manila Central University was founded and organized in 1903 by the late Dr. Alejandro Albert, who became one of the bulwarks of the Philippine Educational System. He was appointed first Assistant Director of the Bureau of Education, and later on as the Undersecretary of Department of Public Instruction. The first school of pharmacy established and run by Filipinos was the Manila College of Pharmacy, now a nucleus of the Manila Central University since 1948. This started when Dr. Alejandro Albert initiated a review class in Pharmacy held in his house at Sta. Cruz, Manila, in 1904. This later moved to the Ciudad de Manila Building at Dulungbayan Street, now Rizal Avenue, and was organized into Escolta de Farmacia, affiliated to the Ciudad de Manila. Dr. Alejandro Albert was the director in 1904-1908. It moved to its present site Caloocan City in 1915, and became College of Pharmacy in 1916 and later College of Pharmacy and Dentistry in 1929.

Today, this successful educational center is one of the pillars of the Philippine educational system, having been granted authority by the Government to confer academic degrees to graduates in its colleges of liberal arts, pharmacy, medicine, surgery, nursing, dentistry, educational, normal and business. It has within its field an average annual enrollment of 5,000 students and a total of 300 professors, instructors and teachers all Filipinos. This University is reputed to have graduated the majority of women pharmacists in the country.

### **Enrolment**

Enrolment of the Manila Central University for the school year 1970-1971 had a total of 7,916, for both semesters with the nursing course maintaining the lead of 1,590 enrolment, followed closely by medicine with 1,530. The University offers also graduate course in Education which shows a total enrolment of 62 for school year 1970-1971. Enrolment statistics shows that the biggest bulk of enrolment is centered in the second year in all courses in both semesters. Enrolment in the first year ranked next.

## **THE PHILIPPINE WOMEN'S UNIVERSITY**

The Philippine Women's University was founded in 1919 by a group of Filipino educators and is considered as the first duly recognized University for Women in Asia founded by Asians. Although the majority consist of Roman Catholics, the University is inter-denominational. The inter-mixing of ages, persuasions and nationalities offers the individual students the opportunity to broaden new points in the classroom as well as in the University campus.

The basic purpose of this University is focussed on one direction — the firm commitment of preparing Filipino girls for active participation in an independent republic because she has to be trained to face new rules. For these reasons the Philippine Women's University sponsored, on its Golden Year Celebration, a conference on the Education of Women in Developing Countries. This conference was attended by the delegates from Ceylon, India, Indonesia, Israel, Japan, Korea, Kuala Lumpur, Pakistan, Singapore, Thailand and the United States.

A population Education Center was established at the Philippine Women's University in cooperation with the Department of Education Commission on Population, National Economic Council and the United States Agency for International Development. The Center is engaged in curriculum development, including teachers, parents and students in the preparation of instructional materials on population education and responsible parenthood.

### MAPUA INSTITUTE OF TECHNOLOGY

The Mapua Institute of Technology, a private non-sectarian institution of higher learning was established and incorporated on January 20, 1925, through the initiative of its founder, the late Don Tomas Mapua. A member of the Philippine Association Colleges and Universities (PACU) and of the Philippine Association for Technological Education (PATE), the Institute is the only private school in the Philippines which pioneered in technological education, by offering the youth such technical disciplines as architecture, and engineering courses as mechanical, civil, electrical, chemical and mining.

In 1951, the Institute offered a four-year course leading to the degree of Bachelor of Science in Business Administration to train competent men and women in business, finance, accounting, economics and management. In 1955, the Institute introduced graduate studies by giving a two-year course leading to the degree of Master of Science in Management (M.S. MGT.), and a one-year course leading to the degree of Master in Business Administration (Accounting Major) M.B.A. In 1959, a course of textile engineering was offered where the students, taking this course now use a modern textile engineering laboratories.

Added to these courses, the Institute offers a three-year course in Surveying leading to the title of Associate in Surveying, and a five-year course in Chemistry, leading to the degree of Bachelor of Science in Chemistry.

The buildings of the Institute are located on two sites, the original Doroteo Jose site in downtown Manila and the new Intramuros site just off the Victoria entrance to the Walled City. The Doroteo Jose site is particularly advantageous to working students because it is easily within the reach from every section of the city. The Intramuros site, a two-hectare lot occupying a whole block on Muralla Street faces the former Mehan Garden and the City Hall. Both sites are accessible to all kinds of transportation facilities.

### Number of Schools, Teachers, and Pupils in Private Elementary Schools

As previously mentioned, private schools in the Philippines are regulated and supervised by the Bureau of Private Schools.

Efforts have been made by the Bureau to raise the standards of private schools to a prescribed level with respect to faculty in professional courses, curriculum improvement, sites, library and laboratory facilities, admission examination and enrolment, instruction and external supervision.

The number of private elementary schools showed an irregular rate of increase from school year 1958-1959 to school year 1968-1969. The number of schools increased from 1,167 to 1,833 during the same period or a yearly average increase of approximately 5.19 percent per year.

On the other hand, the number of school teachers as well as the number of pupils showed a constant rising trend during the same period.

The number of pupils per teacher ranged from 31 to 38 pupils per teacher which was an almost ideal average since the teacher can properly supervise the pupils in the class. The average number of teacher per school during the same period was low, ranging from 4 to 6 teachers per school.

Table VII.33 - NUMBER OF PRIVATE ELEMENTARY SCHOOLS, TEACHERS AND PUPILS, 1958-59 TO 1968-69

School Year	Total Number			Average Number		
	Schools	Teachers	Pupils	Pupils per Teacher	Teacher per School	Pupil per School
1958-1959	1,167	4,844	169,358	35	4	145
1959-1960	1,251	4,989	174,993	35	4	140
1960-1961	1,240	5,768	196,419	34	5	158
1961-1962	1,314	6,201	208,231	34	5	158
1962-1963	1,393	6,347	222,621	35	5	160
1963-1964	1,446	6,784	241,313	36	5	167
1964-1965	1,491	7,268	247,567	34	5	166
1965-1966	1,483	7,731	261,342	34	5	176
1966-1967	1,490	8,943	280,069	31	6	188
1967-1968	1,666	7,553	287,111	38	5	172
1968-1969	1,833	9,497	330,640	35	5	180

Source: Department of Education, Annual Report, 1968-1969.

## Enrolment at all Levels of Education

Total private school enrolment in school year 1968-1969 at all levels showed an increase of approximately 8.51 percent over the previous school year. Total enrolment at all levels increased to 1.9 million as against 1.8 million during the previous school year. In both school years, however, female students were greater in number than males. Of the total enrolment in the same school year, female students accounted for 997 thousand or 52.25 percent while males represented 911 thousand or 47.75 percent. In both years, school year 1967-1968 and 1968-1969, secondary enrolment accounted for bulk of the total, representing approximately 46.37 percent. On the other hand, kindergarten school's enrolment showed the lowest for both years.

Table VII.34 - PRIVATE SCHOOL ENROLMENT AT ALL LEVELS OF EDUCATION BY GRADE LEVEL AND SEX, SCHOOL YEAR 1967-1968 TO 1968-1969

Grade	Enrolment					
	1967-1968			1968-1969		
	Total	Male	Female	Total	Male	Female
Total	1,758,342	841,098	917,244	1,908,206	911,074	997,132
Kindergarten	37,760	19,325	18,435	40,445	20,875	19,570
Primary	203,435	102,774	100,661	234,085	116,355	117,730
Intermediate	93,676	40,634	43,042	96,555	46,626	49,929
Secondary	812,906	406,765	406,141	884,764	442,734	442,030
Collegiate <sup>1/</sup>	539,478	242,182	297,296	565,035	251,257	313,778
Special Vocational	81,094	30,318	50,776	87,322	32,627	54,695

<sup>1/</sup> Includes graduate courses.

Source: Department of Education, Bureau of Private School "1968-1969 Statistical Bulletin".

## Grade School Enrolment

Grade school enrolment in the Private Schools from school year 1961-1963 to school year 1968-1969 showed a gradual rate of increase. From 222,661 pupils in school year 1962-1963, the number rose to 330,640 in school year 1968-1969 or an average yearly increase of 6.99 percent.

Enrolment in grade I to grade VI showed a constant increasing trend during the same period while enrolment in Grade VII and Grade VIII showed a fluctuating trend.

Between school years 1962-1963 and 1963-1964, the grades that registered the highest increases were Grade VIII and Grade II. For school year 1964-1965, most of the grades registered very small increases with grades VIII and VII registering decreases. Grade I registered 4.11 percent increase while grade VII and VIII registered 1.63 and 85.99 percent decrease, respectively.

It can be noted that increases in enrolment of the different grades for other years fluctuated slightly between 10.32 percent to 1.07 percent except for grades VI and VIII where increases of as high as 372.41 percent and decreases of as high as 61.56 percent were registered.

In school year 1968-69, Grade I enrolment formed the bulk of the total grade school enrolment accounting for 69,243 pupils representing 20.94 percent of the total grade school enrolment during that same school year.

## Appropriation for the Bureau of Private Schools

Total appropriations for the Bureau of Private School showed a decrease from school year 1966-1967 to school year 1967-1968. Total appropriations decline to P1.654 million from P1.682 million, or a decrease of approximately P28 thousand over the previous year. Remarkable decrease were noted in the following: Salaries under supervision by P31 thousand, Traveling expenses by P1,000, other services P18,000, salaries under administration by P11,000, other services P500, supplies and materials P8,000. In contrast, increases were noted in the following: Supplies and materials under supervision, an increase of P4,000, fixed expenditures on government contribution to GSIS and retirement insurance fund, for both supervision and administration.

Table VII.35 - APPROPRIATIONS FOR THE BUREAU OF PRIVATE SCHOOLS  
FISCAL YEARS 1966-1967 TO 1967-1968

I t e m	1966-1967	1967-1968	Increase (Decrease)
Total	P 1,682,242.00	P 1,654,714.62	(P28,127.38)
<u>a. Supervision</u>			
Salaries	1,163,897.00	1,133,316.00	(P30,581.00)
Traveling Expenses	65,185.00	64,185.00	(1,000.00)
Other Services	41,804.00	23,110.00	(18,454.00)
Supplies and materials	8,500.00	4,500.00	(4,000.00)
<u>b. Administration</u>			
Salaries	290,976.00	279,889.00	(11,087.00)
Traveling Expenses	5,000.00	5,000.00	-
Other Services	7,000.00	6,500.00	(500.00)
Supplies and materials	20,000.00	17,000.00	(3,000.00)
Equipment	4,500.00	4,500.00	-
<u>c. Fixed Expenditures</u>			
Government Contribution to GSIS and retirement insurance fund and for both supervision and administration	76,180.00	76,000.00	(180.00)
<u>d. Salary adjustment</u>			
Fund under ECI 192 for both supervision and administration		45,714.62	(45,714.62)

Source: Department of Education, Annual Report 1967-1968.

## ACTIVITIES RELATED TO EDUCATION UNDERTAKEN BY PUBLIC AND PRIVATE SCHOOLS

### School Broadcasting

This project is a joint undertaking of the Bureau of Public Schools and the Philippine Broadcasting Service which was started in 1959. The Bureau of Public Schools and the Philippine Broadcasting Audio-Visual Division, plan, prepare and produce the programs and ensure their proper use in schools. The Philippine Broadcasting Service makes available the use of their studios, the services of their technicians and the transmission of the broadcast over their network. With its rebroadcasting projects, there were 47,799 listening classes in different parts of the country which used 21,407 radio sets.

The Bureau of Public Schools also has limited television activities. It supports the Education Television Foundation (ETV) which offers programs for elementary pupils and high school students in the greater Manila area.

The Audio-Visual Center of the Bureau serves 407 schools and other institutions by lending motion picture films, slide sets, tape recordings and other materials and by distributing printed handouts on audio-visual education.

### Sports Consciousness

There is also a continuous program for building up a robust citizenry through organized physical education and activities including sports. Many intramural games and athletic meets are held. There are many activities, like the annual national secondary schools press conference in which school editors and student leaders from all parts of the country participate, youth gatherings like the annual conventions of the CMLI Junior members, boy and girl scouts undertakings, student volunteerism, and service projects of the Junior Red Cross, undertaken by the Bureau of Public and Private schools.

### Civic Projects

Children and teachers in the public schools participate in nationwide projects sponsored by the Philippine National Red Cross, Philippine Tuberculosis Society, Community Family Life Workshop of the Philippines, Children's Museum and Library, Inc., Boy Scouts and Girl Scouts of the Philippines, Panamin Foundation, Aguinaldo Centennial Commission, Postal Savings Bank, and other institutions. They also participate in community development and beautification projects.

### Food Production

The public schools have increasingly been instilling in the school children science and technology consciousness. Science courses and courses in other relevant curricular areas are updated and vitalized.

Hundred of hectares of school lots were planted to rice, fruit trees and vegetables. In addition, school children set up gardens as well as poultry projects.

School children are made aware of such unlawful practices as smuggling, dynamite fishing, and illegal logging and the danger they pose to the well-being of the nation.

## CHAPTER VIII. — SCIENTIFIC AND INDUSTRIAL RESEARCH

To act as the anchor-stone of national efforts in the wide field of science and technology, the National Science Development Board was created under Republic Act 2067 on July 16, 1958. The Board was established as the lawful government agency implementing the policy of the state to promote scientific and technological research and manpower development and consequently foster invention and make use of scientific know-how for promoting national growth.

The Board is headed by a chairman who is appointed by the President for a fixed term of six years. Next in line is the Vice-Chairman who is currently the Executive Director of the Board. There are ten other members comprising the Board; namely,

- 1) The Chairman of the National Research Council;
- 2) The Commissioner of the National Institute of Technology;
- 3) The Commissioner of the Philippine Atomic Energy Commission;
- 4) The Commissioner of Forest Products Research and Industries Development Commission;
- 5) The Director of the Office of National Planning of the National Economic Council;
- 6) One representative from the University of the Philippines;
- 7) One member representing agriculture;
- 8) One member representing industry;
- 9) One member representing education; and lastly,
- 10) One member representing scientific or technological societies.

Since its establishment, the board has expanded tremendously in size and functions. Six principal research agencies are now under the direct supervision of the Board. They are the National Institute of Science and Technology, the Philippine Atomic Energy Commission, the Philippine Textile Research Institute, The Philippine Coconut Research Institute, the Philippine Inventors Commission and the Forest Products and Industries Development Commission. Three other agencies, Metal Industry Development Center, National Water and Air Pollution Control Commission and Philippine Science High School are more or less associated with the Board.

The National Science Development Board provides financial as well as technical aids for research and development towards the achievement of economic goals and for the support of science education in the country. In this respect, the Board encourages project proposals from the local scientific community. It is required that scientists submit proposals which have their institution's approval. This is to insure proper institutional support and to give the institution concerned the incentive to intensify its own scientific resources by formulating long-range plans. The proposals are carefully evaluated and those found to be meritorious and which meet the set priorities are then selected.

The formulation of priorities is based on the results of constant consultations with science agencies and other development planning units, both of the government and of the private sectors. The Board never formulated priorities without the cooperation of the local scientific community, because any science activity is a concern of both the scientist and the national economic planners; thus in order to be workable, priority programs must fully take into account the fundamental principles essential to effective performance of scientific research.

Since January 1969, the Board has been implementing an ever-expanding program for research and development. Prior to 1969, the scientific and technological build-up of the Philippines had been moving quite sluggishly due to the dearth of public funds specifically allocated for research purposes. In fact, the 1966 survey showed that the annual per capita expense of the Philippine government for science and technology was only about P0.60 to P0.65 or a mere 0.1 percent of the Gross National Product. However, the Special Science Fund augmented the financing of scientific research on a sustained basis for a five-year period. The success of the special fund is reflected in the accomplishment of the Board and its agencies.

**Completed and On-Going Projects of NSDB and Its Agencies,  
Fiscal Year 1969-1970 and 1970-1971**

<i>Agencies</i>	<i>Completed</i>		<i>In Progress</i>	
	1970	1971	1970	1971
<b>Total</b>	113	135	221	286
NSDB	11	7	47	51
NIST	11	38	67	114
PAEC	6	16	47	42
PHILCORIN	1	—	13	13
PTRI	2	2	3	4
FORPRIDECOM	82	72	44	62

Source: Annual Report, NSDB, 1970-1971

The Board as the main coordinating agency has assisted in various research projects. Completed projects vary in different fiscal years; i.e., fiscal year 1969-1970 had only 113 projects completed and for fiscal year 1970-1971, there were 135. The research projects in progress are greater in number than those completed because these require one to three-year observation and experimentation. For the fiscal year 1970, there were 221 projects in progress while for 1971, although they numbered 286, some of these projects are a carry over from the previous fiscal years.

### **National Science Development Board**

The NSDB proper for 1970 had eleven assisted projects completed and 47 assisted projects in progress. For the fiscal year 1971, there were 7 completed projects. For agriculture and natural resources, two were completed, industrial researches which covers engineering, industry and trade, 4 and only one medical research. There were 51 projects in progress for the fiscal year 1971. Agriculture and natural resources claimed priority of 18, industrial 8, medical and allied science 11 and social sciences 14. Adhering to the national science aims, researches of economic importance and those essentially related to agricultural development were given priority.

### **National Institute of Science and Technology**

The NIST has five centers for different types of research projects besides the Scientific Instrumentation Division.

- A. Agricultural Research Center is in charge of undertaking research studies on plants and animals. While there is a shortage of agricultural research scientists, the Center nevertheless had completed two projects for the fiscal year 1970-1971. Projects in progress in this Center for 1970 were 7 and only 5 for 1971.

- B. **Biological Research Center** deals with researches involving physical and biological sciences. There was no project completed for 1970 but of the 15 projects in progress for the same fiscal year, six were completed in 1971. There were still 9 projects in progress for fiscal year 1970-1971.
- C. **Food and Nutrition Research Center** conducts activities to minimize the country's malnutrition problems. Researches on food nutrition were undertaken to meet the nutritional needs of the people while nutrition information was disseminated to the public. The completed projects for fiscal year 1970 were only six but by 1971, there were 20. Projects in progress for 1970 were nineteen but by 1971, research projects tripled to 58.
- D. **Industrial Research Center** re-examines and evaluates projects of economic and commercial possibilities. There are two types of laboratories for research and testing. These are the chemical and development laboratory and the engineering research and development laboratory. This center had completed 8 projects in progress for 1970, while in 1971, 16 were completed.
- E. **Medical Research Center** is principally involved on research about deeper knowledge of the disease process and improvement of medical facilities. There were two research projects completed for the fiscal year 1970 and by 1971, five were finished. Projects in progress for 1970 were 11 and increased to 26 by 1971.

A close look at projects of the NIST will reveal that the food and nutrition and the medical centers have the most research undertakings. However, the researches are mainly aimed at developing new process of techniques in converting coconut into commercial by-products. Efforts were geared toward product multiplication and technological build-up involving the coconut industry with the five centers engaged in research and development.

### Completed and On-Going Projects of NIST Centers

<i>Center</i>	<i>Completed</i>		<i>In Progress</i>	
	1970	1971	1970	1971
Total	11	38	67	114
Agricultural Research Center	—	2	7	5
Biological Research	—	6	15	9
Food and Nutrition Research Center	6	20	19	58
Industrial Research Center	3	5	15	16
Medical Research Center	2	5	11	26

Source: Annual Report, NSDB 1970 and 1971

### Philippine Atomic Energy Commission

The PAEC has made significant contributions to the country's continuing efforts at exploiting the peaceful uses of the atom. The agency successfully met the problems of inadequately-trained Filipinos in atomic energy work, the lack of locally available standard nucleonic equipment and instruments, as well as, the acute shortage of laboratory space.

For the fiscal year 1969-70, the PAEC completed six significant projects with 47 in progress. For the 1970-71 fiscal year, 14 research projects were completed while 42 were still in progress. There are 10 departments in PAEC.



### Completed and On-Going Projects of PAEC

<i>Research Departments</i>	<i>Completed</i>		<i>In Progress</i>	
	1970	1971	1970	1971
Total	6	16	47	42
Bio-Medical	1	—	6	5
Health Physics	4	3	1	3
Research and Development	1	—	7	—
Agriculture	—	—	6	7
Chemistry	—	—	5	5
Nuclear Engineering	—	10	4	6
Physics	—	1	8	6
Reactor Operations	—	—	5	5
Experimental Service	—	2	4	5
Nuclear Training Institute	—	—	1	—

Source: Annual Report, NSDB 1970 and 1971

The PAEC saw increased utilization of the center's main equipment, its \$500,000 research reactor. The utilization was mainly for research work and isotope production. Technical service extended to government and private sector is one of the major activities of the PAEC. The technical activities include health physical services, consistency of film badge and dosimetry services, experimental services consisting of electrical and electronic works, and the promotion of industrial uses of radioisotopes applied to local industry.

To pursue its aim of providing training in atomic energy to scientists, technologists and educators, the PAEC has the Nuclear Training Institute that conducts courses in various areas of atomic energy. A milestone in atomic legislation and in the development of nuclear power in the Philippines is the passing of the Atomic Regulatory and Liability Act (R.A. 5208). This Act provides the framework for licensing large nuclear facilities and the minimum standards of civil liability for nuclear damage.

### Philippine Coconut Research Institute

The PHILCORIN is the center of all agricultural research on coconut production. This agency conducts scientific researches and investigations on the botanical and genetic aspects of coconut improvement, the agronomical problem relating to coconut culture, the etiology and the control of important insect pests of coconut.

While the NIST is engaged in researches of converting coconut to commercial products, the PHILCORIN is more involved in the study of various factors affecting coconut production to correct obsolete practices of coconut culture and recommend appropriate measures that may be applied and exploited for the benefit of the industry.

During fiscal year 1969-1970, one important project was completed. This was the result of a research undertaken on the application of nitrogen, phosphate and potash on the yield and number of nuts and weight of copra. The result showed yielded potash as an all time factor in the nutrition of coconut. The thirteen on-going projects for the two fiscal years on review are centered on studies of all aspects of coconut researches.

### Philippine Textile Research Institute

The PTRI was established to promote the textile industry of the Philippines by exempting under certain conditions, importations of needed raw materials, chemicals, dyestuffs and spare parts and the subsequent manufacture and sale of products derived therefrom; e.g., duties and taxes, by creating a special fund for vital research and for other purposes.

Under the law, the fund is for research experiment and study for projects that will contribute to the local growth, production or manufacture of raw materials needed by the industry and to the improvement or invention of machinery, equipment processes or production methods for the industry. In this respect, the NSDB has created the Textile Research Advisory Committee to insure active participation of the private sector in the implementation of the textile research program.

For fiscal year 1970, there were two (2) researches completed under PTRI assistance, while three (3) others are still in progress. Fiscal year 1971 had only two (2) projects completed and another four (4) in progress.

Standardization program for textile industry has been implemented by the Institute. Testing services have been given to textile millers and other agencies upon request. In addition, the PTRI extend assistance by rendering consultations, advisory technical service aimed at developing the growth of the industry.

### Forest Products Research and Industries Development Commission

Activities of the FORPRIDECOM are mostly geared towards basic and applied research studies on forest products. It undertakes cooperation projects with the wood-based industries. Specifically, the researches dealt with the physical and mechanical properties of wood, behavior of different species, the manufacture of veneer, plywood and laminated products, the gluing of wood, the microscopic structure of woods and their relation to wood properties and assistance for pilot-scale development.

The FORPRIDECOM has completed a total of 82 projects for fiscal year 1970 and 44 projects in progress for the same period. The 72 projects completed during fiscal year 1971 included regional investigation and field coordination service, while the 62 projects in progress had three (3) researches under the production development services. The last two services mentioned were recently instituted last 1971.

#### Completed and On-Going Projects of FORPRIDECOM

<i>Research</i>	<i>Completed</i>		<i>In Progress</i>	
	1970	1971	1970	1971
Total	82	72	44	62
Chemical Investigation Service	18	18	6	11
Timber Physics and Engineering Service	13	12	5	8
Wood Preservation Service	17	21	10	5
Wood Processing and Utilization Service	16	8	9	14
Wood Technology Service	1	12	4	15
Industries Development Service	—	—	10	6
Regional Investigation and Field Coordination Service	—	1	—	—
Production Development Service	—	—	—	3

Source: Annual Report, NSDB 1970 and 1971

### **Philippine Inventor's Commission**

The PIC was created for the purpose of encouraging and promoting Philippine inventions by helping inventors develop, perfect and produce their individual inventions for future manufacture and commercialization. Technical, legal, financial, research, marketing and other forms of assistance are extended to all inventors.

Through its technical assistance, the Commission carefully gives a thorough examination of the novelty of inventions, the cleverness involved, as well as its marketability. By legal assistance, the inventor is provided not only with the routinary legal facilities but also protection from infringement. The Commission, on this aspect, assists not only inventors with original inventions but also those who have obtained by themselves their letter patent and who seek advice and assistance.

The Commission conducts market analysis on various inventions. This involves study of their local marketability and evaluation of whatever importance the inventions might have abroad. Patented inventions are even recommended to financing institutions for long-term loans to enable the inventors to manufacture their inventions.

Out of the eighty-three (83) applications received during the fiscal year 1969-70, twenty-four were favorably acted upon by the Commission. For fiscal year 1971, eight (8) were found to be patentable, while eleven (11) are awaiting certain requirements and six are needing reassessments.

### **Research Development**

The NSDB, the Philippines' sole science coordinating agency has a program for scientific researches. To achieve a coordinated effort in the utilization of research to solve national problems and at the same time to overcome the limitations set by inadequate funds, projects were narrowed to the fields of agriculture and natural resources, industry and engineering, medicine and allied sciences, foods and nutrition, social sciences, nuclear sciences, inventions development and scientific manpower development.

Researches in agriculture and natural resources were geared at increasing food production, while those in industry and engineering were aimed towards surmounting present obstacles to the national effort of accelerating industrial growth through exploitation and utilization of local resources. Medical researches were directed towards strengthening our manpower potentials through deeper knowledge of the disease process and improvement of medical facilities. The efforts of the NSDB were much strengthened with the big boost in the implementation of the Special Science Fund.

Enumerated are some of the research projects completed by the different agencies and the respective field of research.

## **AGRICULTURE**

### **Swine Improvement Through Breeding**

The project has for its aim the development of a breed of swine that will combine the essential qualities of the bacon and lard type of foreign pigs with the indigenous and resistant Philippine pigs.

This NSDB-assisted project took seven years to complete with the College of Agriculture of the University of the Philippines as the implementing agency.

### **Spineless Kenaf Varieties**

The development of commercial production of NSDB spineless kenaf varieties and a Study of the Cultural Requirement of Fiber Rosella in comparison with the NSDB Kenaf Varieties were projects undertaken by NSDB.

Kenaf plant is the best known substitute for jute as a source of raw materials for the manufacture of sacks. Kenaf plant is a commercial crop whose economic potentialities are unlimited. In the Philippines, there exists insufficiency of bagging material for agricultural products like rice, sugar and copra. This NSDB-assisted project can be an answer to the demand, thus saving millions of dollars for the government.

## FOOD AND NUTRITION

### Preparation of Coconoodles:

This is an NSDB research project, aimed at preparing a supplementary food from local protein rich sources. Noodles were prepared from flour of coconut, mongo and wheat. The noodles came light brown in color. Analysis showed that they contained 25 percent of protein and were good sources of calcium and phosphorus. The product was rated acceptable to all age groups.

### Average Heights and Weights of Filipinos

It was noted that initially the growth pattern of our infants are similar to the Iowa (U.S.) standards up to the third month only. Then the Filipino infant begins to lag behind. Also, it was found out that the Filipino reference man of 20-29 years, weighs 53 kilograms and is 163 centimeters in height. The Filipino reference woman weighs 46 kilograms and is 152 centimeters tall. This is attributed to the dietary pattern of the Filipino.

Nutrition surveys were undertaken and completed by the NIST in the different regions of the Philippines; such as,

- a) The nutritional re-evaluation of the Bayombong Applied Nutrition Project. The result indicated an apparent improvement in calorie nutriture for all age group in the experimental area upon termination of the project. The dietary pattern showed some degree of general increments for most food group and for all nutrients except Vitamin A.
- b) The nutrition survey of Bicol region in the clinical phase showed signs of specific deficiencies of Vitamin A, C, riboflavin, niacin, iodine and Vitamin D. Dental fluorosis was also observed and incidence of parasitism was 91 percent. In the biochemical phase, the tests indicated the need for improvement in iron, ascorbic acid, thiamine and riboflavin nutriture.

## MEDICINE AND ALLIED SCIENCES

### Ground Substance of Kidney Medulla — Its Role in Concentrating Urine

This is an NSDB-assisted project. This is aimed to demonstrate the effect of depolymerization of the ground substance of the medullary connective tissue on the concentrating function of the kidney. Depolymerization of the ground substance of the kidney medulla resulted in loss of concentrating function of the kidney. The result will challenge the usual belief that loss of the concentrating function of the kidney is due primarily on the tubules.

It will also open a new method of study on the effect of diuretics (drugs) on the kidney. It will be able to understand better the assessment of kidney disease by including the ground substance of the connective tissue in the analysis.

## THE USE OF Fe-59 LABELLED PLANT FOODSTUFFS

### In the Study of Iron-Deficient Anemia

This PAEC research was completed last fiscal year 1969-1970 and was undertaken to gather information on whether or not iron is absorbed in plant foodstuffs and use this knowledge to counteract nutritional anemia, a disease common among Filipinos. Results showed that iron was absorbable in these plant foodstuffs and that it would also be absorbed by the experimental animals.

### **Transmission of Low-Energy X-Ray Through Various Locally Available Materials**

This study was undertaken to obtain information that could be utilized to evaluate the usefulness of plywood, lawanit, pinewood, plastic and styrofoams as shielding materials. Results of a series of experiments undertaken by PAEC showed that lawanit could be used as shielding in an X-ray installation.

A significant assistance extended by the PAEC to the National Orthopedic Hospital was the designing of a nuclear instrumentation system for a quick method of determining the approximate blood volume of a person with the use of radioisotopes.

This instrument will be very useful as it will immediately provide the surgeon with information on the total blood volume of victims of accidents who have to undergo emergency operation. This consists of a scale and a scintillation detector with lead shielding and collimator.

The NIST through its Scientific Instrumentation Division, had completed a job order for fabrication of various types of Stainless Steel Adapters and fittings for a Heart-Lung machine and several Heart-value gauges (obdurator) for the Department of Surgery of the Philippine General Hospital. From the same division, they had accomplished the design and fabrication of a Rat Skull Drill for the Research Services Department of the Veterans' Memorial Hospital.

An accomplishment worth mentioning is the design and fabrication of an experimental calibrating device for transducers used in connection with the application of ultrasonic waves in physical therapy. The device was made for the Physical Therapy Unit of the Philippine General Hospital.

## **INDUSTRY**

### **Radiation Grafting of Plastic Monomers to Philippine Fibers**

In this PTRI research work, experiments were conducted on the reduction, grafting of plastic monomers to locally abundant fibers such as ramie, abaca, and Kenaf to incorporate in them the desirable properties of synthetic fibers. Improvement on the qualities of the fibers as textile materials will promote maximum utilization of our local cellulose fibers thereby reducing the country's heavy importation of textile fibers.

### **Chemical Derivatives, From Coconut and other Indigenous Oils**

This was an NSDB five-year assisted project aimed to make studies on derivatives from coconut and other indigenous oils so as to lessen imports of such chemical derivatives and intermediates. Prior to the study, the Philippines exports to the United States coconut oil in the raw form. But with the project completed the export by then will be in the form of finished intermediate or chemical derivatives.

The NIST has the Scientific Instrumentation Division and through its four units of electronics, fine mechanics, optics and scientific glass blowing, has some significant accomplishments that can be categorized as industrial projects. Among them are:

- a) Design and fabrication of solid state control system that automatically shuts off the power to a distilling apparatus when water supply runs out. This prevents the distilling apparatus from being damaged.
- b) Design and fabrication of a transistorized water level indicator used in the determination of ground water table level.
- c) Repair of quartz clock system installed at the Manila International Airport. This system provides synchronized time indications at fifty different stations in the Airport. The system provides time accurate to one second in three years.
- d) Fabrication of stainless steel standard kilogram masses for the fair trade board.

**Preparation of Copper Sulphate from Chalcopyrite (Acoje Barlo Copper)**

This project is aimed to develop a method of preparing technical grade copper sulphate from locally available copper ore without using expensive imported reagents.

**Studies on Chemical Modification and Finishing of Philippine Natural Fibers with Emphasis on Abaca**

A completed project of PTRI was aimed at utilizing our own native fiber in textile production with the end in view of reducing our importation of raw materials. Significant results on the processing and utilization of abaca and other fibers as a textile material were developed.

**The Effect of Sustained Loading on the Strength of Wood Beams**

This study is to determine how the strength of solid wood beams are affected by long duration and to investigate the time dependent behavior of beams. This research was undertaken for the derivation of more realistic working stresses.

**Basic Stresses of Structurally Important Philippine Wood V. Species Likely to be used for Structural Purposes**

The main objective is to derive the basic stresses of structural species as the initial step in deriving work stresses for use in design.

**Effectiveness of Some Proprietary Surface Coating in Minimizing Checking and Warping of Wood Products**

The objective is to determine the effectiveness of some proprietary surface coatings in minimizing moisture absorption preventing checking and warping when applied on surfaces of wood products intended for export to foreign countries.

**ACTIVITIES****A. Training**

The NSDB in the exercise of its principal mission essentially providing financial support for research and development, maintains training program to insure a supply of adequate scientific and technological manpower for the country's needs. These are implemented in the following areas:

- (a) Teacher Training Institute
- (b) Science Teaching Centers
- (c) On-the job Training

*Teacher Training Institute*

While this is sustained as science education program, the institute aims to provide training for the science teachers in the basic skill of science and to improve the quality of science education in the country in all levels of seventeen projects, with 2,085 participants and ₱604,456.00 of NSDB money. For the fiscal year 1970-71 there were four projects accomplished with eighty participants and ₱141,650.00 of financial assistance from the NSDB. Two of the selected projects were:

*Special training program for science and mathematics teachers*

There were 28 teachers who trained at the University of the Philippines Education Center. One of its main objectives was to provide intensive instructions in the major science and mathematics concepts needed for good understanding of the materials prepared by the center and actual experience in the use of materials.

### *Training and Development of Physics In MINSUPALA Region*

The training took place at Mindanao State University, Marawi City with thirty participants for the fiscal year 1970-71. A continuing program, this project provides graduate training in physics for college instructors already in the service or college graduates with the proper science major requisites who could be induced to teach eventually.

### *Science Teaching Centers*

These Science Teaching Centers aim to integrate all projects of the NSDB especially on the summer institutes, development of curriculum materials, making simple laboratory equipment, conferences and other related projects with the cooperation of the Department of Education and the University of the Philippines.

The following universities that have been selected initially were Ateneo de Davao in Davao City, St. Louis University in Baguio City, Aquinas University in Legaspi City and Silliman University in Dumaguete City. The fiscal year 1969-70 had a total of two hundred and fifty (250) physics and chemistry teachers with fifty participants (25 physics and 25 chemistry) in each center attending the training. NSDB's financial assistance amounted to ₱187,500.00. The UNICEF assistance was in the form of science equipment distributed to teacher participants.

### *On-the-Job Training*

The training programs primarily aim to develop personal skills and leadership in effective research. Moreover, the program will upgrade their professional background. The Board has a training program for key planners of the NSDB and its agencies so they would acquire functional skills and understanding related to the basic theories, concept of development program keyed to socio-economic development. The training was participated by twenty-five key personnel of the NSDB and its agencies.

The laboratory training in the operation and evaluation of X-ray diffraction and identification of minerals by microscopic method at the Bureau of Mines are two of the on-the-job trainings conducted. Under special arrangements, trainees from other government offices and private establishments are accepted by the NSDB and its agencies.

Staff seminars on current development in the different fields of researches are conducted regularly at NIST. On food and nutrition alone 91 in-service trainees have graduated for the fiscal year 1969-70.

The PAEC has an education and training program that has produced a fair harvest of trained personnel to man the expanding research and technological programs. It has the Nuclear Institute offering courses in various areas of atomic energy. It is aimed to provide training in atomic energy to scientists, technologists and educators. This in a way has encouraged other local agencies to use radioisotopes and atomic energy in their respective area of endeavor.

There are two aspects of local training. One phase consists of short courses on the fundamentals and application of nuclear science lasting four to six weeks. The other phase involves a cooperative program of thesis advisory and apprenticeship training entered into by the PAEC, on one hand, and local universities including research establishments, on the other hand. The PAEC has trained 1,358 persons after a decade.

## **B. Science Education and Technical Manpower Program Activities**

Pursuing the policy of improving and standardizing its training course, the NSDB has programs for different educational levels. This is a continuous search for science-inclined and talented students throughout the country through competitive examinations by encouraging these students to pursue science careers through scholarship grants. The program offers both local and foreign scholarship in undergraduate training program.

### *Graduate Training Program*

The NSDB, through this program makes available scholarships for advanced and specialized studies in physical sciences, medical and allied sciences, agricultural and marine life sciences.

ces, engineering and mathematics leading to an M.S. or doctorate degree. This scholarship could be local and foreign. The forms of scholarship offered by this program are either fellowship, assistantship or as a full time student.

This in effect increases the supply of science-trained manpower for university teaching, industrial development and creative research. Furthermore, the program offers adequate incentive and opportunities for young and highly promising men and women to pursue higher studies in scientific disciplines.

### C. Foreign Contribution

The Philippines, economically-categorized as developing country, is a recipient of several contributions from different international agencies. The contributions extended are in the form of scholarships, goods and technical services. The scholarships are academic studies, on-the-job training and scientific visits.

The Philippine Atomic Energy Commission has the highest number of training grants and scholarships since this has a total of 166 fellows already graduated and trained in nuclear science. Most of the training were sponsored by the International Atomic Energy Agency. The overseas studies and training are keyed towards academic post-graduate degrees to meet intensified research activities.

The Colombo Plan, conceived for South East Asia people, sponsor fellowship on short term training on their field of specialization in foreign universities and research centers.

The United Nations Development Program and Technical Assistance (UNDP/TA) has a schedule extended to the Filipinos for short term fellowship and most often on-the-job training.

Overseas Study grants have been enjoyed in different universities and study centers like the British Medical Research Council, East-West Center, Cornell University, and others. The grants however, are jointly sponsored by the Philippine government and whichever study center the awardee is interested.

### Private Sector

The private sector is not lagging in the quest for scientific progress. The fact that they have established foundations aimed to a particular study for scientific development, strengthens the long felt need for this type of work. These foundations are not only certified but are also partly provided with technical and financial assistance by the NSDB. Actually there are more foundations registered with the Securities and Exchange Commission but the sixty-three (63) certified by the NSDB are exclusively dedicated to scientific research development.

Of these certified science foundations, fifty-three (53) have already been approved before June, 1970. They are classified to six categories: medical, behavioral and social sciences, industrial, agricultural, educational, and socio-economic. Nineteen (19) foundations devoted to behavioral and social sciences dominated these private research foundations. There are twelve groups geared for research studies in socio-economic development of certain areas.

Foundations that are agriculture-oriented are five (5) because government agencies, like the Department of Agriculture and Natural Resources, frequently undertake this type of research, while industrial research-dedicated foundations numbered six (6) only, inasmuch as project in this group entail enormous investments such as expensive equipment. There are seven medical research foundations that are already existing. The fields of concentration in medical science are on the studies of heart, kidney and cancer.

A very active medical organization is the Philippine Cancer Society that endeavors to detect all kinds of pathological growth from all walks of life. Another is the Kiwanis Heart Foundation that provides financial and medical assistance to unique heart case studies. One private foundation that is active on research and studies on social science is the PANAMIN. This is a private association devoted to National Minorities. It supports the tribal groups of the Philippines, in many ways—revive their cultural practices blended to the present way of life, give medical assistance and promote education.



The Economic Development Foundation has undertaken industrial researches, publication and dissemination of results of these researches and their applications while being supported by private agencies and individuals. Some of the researches undertaken receive government support and to some extent from international agencies like UNDP. One unique science foundation is the El Observatorio de Manila. This is the only foundation exclusively devoting its time to observational and research studies on solar-terrestrial relationships or astronomy.

## INTERNATIONAL CONTRIBUTION FOR SCIENTIFIC AND RESEARCH DEVELOPMENT

Foreign aid programs have contributed to the resources of the country in its economic and social development efforts. The Office of the Foreign Aid Coordination of the National Economic Council handles and coordinates these various foreign aid programs.

### A. United States

For the fiscal year 1970, the U.S. aid consisted of \$25.54 million in grants. Many of the U.S. AID approved training programs are held in the United States and the participants are mostly engaged in the public sector activities. One hundred and fifty-eight persons were trained for the fiscal year 1970. Of the 3,710 persons trained since the start in 1952, only 425 came from the private sector.

The U.S. AID agricultural program has for its goal several studies for a technologically dynamic agriculture. One of the accomplishments during the fiscal year 1969-70 included an extensive research on rats. This was conducted in all cereal-producing island and provinces having current or previous history of chronic infestations.

On health and sanitation, the U.S. AID with Philippine counterparts have two significant projects with encouraging results and improved programs.

#### (a) *Malaria Eradication Services*

One of the basic objectives of Malaria Eradication Program is to determine malarious and non-malarious areas by internationally recognized epidemiological methods. The U.S. AID programmed \$192,000 for technicians and \$308,000 for commodities.

The MES so far has established 38 malaria units throughout the strategic areas of the country. The target load for spraying during 1970 is 492,359 houses with an estimated population of 2,467,537 and cases detection of 6,232,000. The percentage of houses sprayed was 82.5 percent. Some 1,323,262 persons were examined with 35,685 found positive for malaria. The positivity rate was 2.7 percent.

#### (b) *Population Planning Program*

This program is for the purpose of providing financial assistance to government and private agencies and institutions engaged in population and family planning. The primary goal is to lower the population growth rate.

Surveys in the rural areas were conducted giving suggestions or lectures on family planning, but still relatively few persons would adopt modern methods of birth control. There is, therefore, a need to translate family planning ideas from an abstract concept to personal concern for the rural folks for them to adopt and practice some form of birth control. It can be mentioned in passing that the established 201 family planning centers and clinics have serviced 78,819 women for the fiscal year 1969-1970.

## B. United Nations Assisted Programs

The program of the UN consisted of four separate but complimentary programs.

1. UNDP — Special Fund and Technical Assistance
2. Expanded Program of Technical Assistance
3. Regular Program of the Specialized Agencies
4. Program for non-Technical Assistance.

There were ten projects implemented and programmed:

- (a) Soil Fertility and Research Survey
- (b) Deep-sea Fisheries Development Project
- (c) Forest Ranges and Watershed Management
- (d) Strengthening of agriculture training in the Mindanao Institute of Technology
- (e) Master plan for a sewerage system for the Manila Metropolitan area
- (f) Feasibility survey for the hydraulic control of Laguna Bay complex
- (g) Meteorological training and research institute
- (h) Strengthening agricultural training at Central Luzon State University
- (i) Institute of Planning of the University of the Philippines
- (j) Industrial Vocational Training Program

In addition to these projects, operations of which are expected to start are the Metal Industry Development Center and the improvement of irrigation facilities through ground water development.

- (a) Soil Fertility — The purpose is to increase the production of foods and industrial crops through a program that would produce realistic information on the correct use of fertilizer, lime and other soil amendments that will lead to improve varieties of crops, cultivation methods, soil conservation, and disease and pest control.
- (b) Deep-Sea Fisheries — Our country is suitable for abundant fishing industry, but there is lack of technical know-how in fishing methods. This project, therefore, aims to improve the fishing methods scientifically to make this industry contribute to the economic growth of the country.
- (c) Demonstration and Training Forest, Forest Range and Watershed Management — The aims are: (1) to establish one or more pilot units for demonstration and training in forest and watershed management; (2) to assist the government in formulating policy, re-organizing administration and preparing legislation to insure the proper management of land, water, and forest range resources; (3) to prepare a plan for the development and rehabilitation of the forest land sectors of the project, which will eventually be used as a pattern for the development of other similar areas throughout the Philippines.
- (d) Upgrading of the Mindanao Institute of Technology — The project aims to strengthen the programmes of applied research and teaching in agriculture at the Mindanao Institute of Technology to meet the needs of the farmers now residing in Mindanao, as well as, the expected large influx of farmers which will be resettled in Mindanao. The program will place major emphasis on farm management and agriculture engineering. The project will include practice field studies in farm management, the development of a simplified system of farms accounting and analysis, a pilot program of adult farmers education in farm management, studies in farm mechanization and farm equipment maintenance.

- (e) Master Plan For a Sewerage System For Manila — This is a joint project, with WHO as the executing agency for the UNDP and the NWSA for the Philippine Government. The purpose is to prepare a master plan for sewerage system for metropolitan Manila area: (1) to remedy the present inadequacy on this vital service; (2) to prepare a development program to meet the present and future requirements of Manila and provide for the extension of sewerage to neighboring cities and municipalities which at present are lacking this type of service and, (3) to prepare feasibility studies for future appraisal by international institutions.
- (f) Feasibility Survey for the Hydraulic Control of the Laguna de Bay Complex and Related Development Activities — This concerns the study for the control of the water level of the Laguna de Bay, Pasig and Marikina Rivers in order to develop the useful area for agriculture, industry and transport.
- (g) Meteorological Training and Research Institute — The purpose is to assist the Weather Bureau in strengthening the existing meteorological facilities; particularly with regard to the application of meteorology to the increased production of hydroelectricity, development of commercial aviation and inter-island shipping and fishing, and in decreasing losses due to typhoons and floods. The program includes the establishment of an Institute of Meteorology at the University of the Philippines.
- (h) Strengthening Agricultural Training at Central Luzon State University The purpose is to render assistance to the government in strengthening the program of teaching, applied research and extension education in agriculture at the CLSU in order to properly prepare needed agricultural educators, technicians and specialists for the proper implementation of the administration's increased food production program and socio-economic reform. Furthermore, the training will assist farmers in the small scale intensive mechanization of the small farm unit found particularly in the Central Luzon Region. This will contribute significantly to the manpower requirement needed for land development program.

#### *Expanded Program of Technical Assistance*

Under this program, the experts usually stay longer in the country and practical operations are conducted through the establishment of demonstration projects to provide on-the-spot training to local personnel. In addition, equipment is provided when needed in the different projects. There were ten technical agencies involved and forty-one projects going on as of the fiscal year 1969-70 with an appropriation of \$820,020.

#### *Regular Program of Specialized Agencies*

These specialized agencies of the UN (FAO, UNICEF, ILO) also provide additional assistance to carry out activities in the field of economic and social development under their respective technical competence.

Originally, technical activities under this program are directed more towards regions rather than directly towards individual countries. Recently, however, limited direct-to-country technical assistance is made available by these specialized agencies. The value of their assistance for the calendar year 1970 was \$90,000.

The World Food Program is a joint undertaking of the UN/FAO aimed at stimulating social and economic development through aid in the form of food. One of the projects that is in progress is the Improvement of the National Irrigation System.

This project aims to increase agricultural production through the repair and improvement of the existing national irrigation system. The irrigation system will improve production

and will, ultimately, increase farmers' income. Food commodities are rationed to farmers and hired laborers who work voluntarily on the project.

Another is the Development of Malangas Coal Mine. This project will provide training on underground coal mine techniques at all levels of coal-mine employees. The objective is to increase the daily output. WHO will provide food assistance to supply a supplementary diet and as a part payment of wages of the training employees and laborers.

The UNICEF is one UN specialized agency that provides honoraria for training, drugs and laboratory equipment for leprosy control while WHO provides technical guidance and advice. The experts participate in field inspection and evaluation.

Another undertaking of the UNICEF is to improve science education in primary and secondary schools since science subjects form part of the curriculum in all schools of the Philippines.

### C. Colombo Plan Assistance Program

This is a collective concept of the country's own efforts assisted by other member countries towards economic development in South and Southeast Asia. The receiving country determined its needs and negotiates with the donor country as to the best way of meeting the need. For the fiscal year 1969-70 the assistance amounted to \$650,000, being enjoyed by 329 trainees.

Twenty-six foreign experts rendered assistance, in the fields of Physical Therapy, Animal Technology, Food Technology, Civil Aeronautics, Curriculum Development, Teacher Education, Dairy and Pasture Production.

### D. Bilateral Technical Assistance Program

The Philippines also maintains bilateral agreement with other countries outside the U.S., UN and Colombo Plan. These bilateral agreements provide the Philippines with another source of technical assistance such as scholarships, technical experts and equipment.

These types of assistance which are negotiated on a government to government basis by the Department of Foreign Affairs aim to develop a reservoir of technically trained manpower skilled in industrial techniques and qualified to undertake research work for the advancement of the industry. There were 77 technical men trained for the fiscal year 1969-70.

1. Netherlands — The bilateral agreement is for the establishment of Institute for Small Scale Industries. The Institute is a training ground for graduate students to become experts who will specialize in the assistance and promotions of small and medium industries. The program provides assistance for those who have completed researches on government industry and machine shops in the form of fellowship. This bilateral agreement has sent faculty members for studies and observations to different countries. For fiscal year 1969-1970 \$286,200 was spent for this program.

2. Germany has made available fellowship in the fields of engineering, mining, electronics, industry, ship building, medicine, management and marketing. The Federal government has appropriated \$2.5 million for technical projects like the cadang-cadang research. The rat extermination project will involve German experts and consultants who will render technical assistance to the Bureau of Plant Industry. This research has a donation of \$57,000 from Germany.

The Basic Physics Equipment Kit consisting of 100 sets were donated by the Federal Government to the NSDB to upgrade the level of teaching of laboratory physics in the Philippine secondary schools. In 1970, a German expert came to give lecture-demonstrations on the use of the kits. This will enable the teacher to teach with more ease and competence.

3. Japan and the Republic of the Philippines have agreed to establish a Technological and Development Center in Marikina, Rizal to improve the production and develop new techniques in cottage industries in the Philippines. Japan sent fifty one (51) paid experts and nine (9) volunteer experts. These experts have conducted physical testing research on raw materials such as Talakad Clay (Cagayan de Oro) and Sibul Spring Clay (Bulacan).

Another joint project is the Cholera "El Tor" Project, which covers research and eradication. Presently, the research project is concentrating on the efficacy of non-valent vaccine and on the effects of improved water supply and good waste disposal habits as preventive measures against cholera infections. The most important development so far was the controlled field trial of effectiveness of cholera and cholera "El Tor" vaccines and the discarding of the former in favor of the new cholera "El Tor" vaccine.

4. France has a joint project with the Philippines, Department of Education, for Pilot Training Center for Electrical Trade. France will provide technical advisers and experts to assist the instructors in teaching methods, preparation of instructional materials and in the operation, care and maintenance of shop facilities as well as safety practices in the uses of electrical and mechanical shop equipment in the center. The Training Center has turned out forty-nine graduates in 1970.

## CHAPTER IX — CRIME AND DELINQUENCY

### PHILIPPINE CRIMINAL LAW AND PROCEDURE

The system under which justice is administered in a country varies with other countries. It is neither so rigid nor flexible. Judicial system must grow and adopt itself to the needs or requirements of the people, and the exact limits of the powers of different legislative bodies require continued definition.

The Philippine criminal law is contained in Act. No. 3815, commonly known as "The Revised Penal Code". Before the effectivity of the Revised Penal Code, the Philippine criminal law was to be found chiefly in the Spanish "Codigo Penal" of 1870 which took effect in the Philippines on July 14, 1887. During the early years of the American regime, the Civil Commission approved several penal statutes, among which were the malversation, opium, brigandage, libel, treason and sedition laws.

In 1927 a committee undertook the revision of the Spanish Penal Code, together with the special penal laws then in existence, and completed the draft of a revised system of criminal law, which was subsequently enacted by the Philippine Legislature as the Revised Penal Code on December 3, 1930 and took effect on January 1, 1932. This code was, on the main, based on the Spanish Penal Code. However, it has incorporated the criminal statutes then in operation as well as some provisions from a proposed correctional code prepared by Rafael del Pan in 1916. The Revised Penal Code was subsequently amended by Acts of the Philippine Legislature Nos. 399, 4000, 4016, 4017; Commonwealth Acts Nos. 52, 99, 157, 202, 217, 135, 264, and 417; and Republic Acts No. 12, 18, 47, 120, 172, 373, 379, 384, 1060, 1083, 1084, 1289, 1790, 1956, and 1978.

President Manuel Roxas on March 20, 1947, promulgated Executive Order No. 48 creating a code commission for the purpose of "revising all existing substantive laws of the Philippines and codifying in conformity with the customs, traditions and idiosyncrasies of the Filipino people and of the progressive principles of law.

The Code Commission submitted to Congress in 1951, the draft of the "Code of Crimes" for enactment.

Criminal law is that branch or division of law which defines crimes, treats of their nature and provides for their punishment. In its broader phase, criminal law is concerned not only with substantive criminal law and the criminal procedure but with all the legal relations which are involved in the commonly used expression "the administration of criminal justice", which includes the organization of courts of criminal jurisdiction, probation, parole, prison administration, juvenile courts and laws designed to change social and industrial conditions in order to prevent crime.

Congress may determine what courts or other tribunals shall be established for the trial of offenses against its criminal laws and define their several jurisdictions and authority as between themselves. It is free to regulate the procedure of its courts in accordance with its own conceptions of policy, unless in so doing it offends some principles of justice so rooted in the traditions and conscience of the people as to be ranked fundamental.

The power of Congress to establish courts is not exclusive. The Chief Executive, in times of war, in the exercise of his powers as Commander-in-Chief of all Armed Forces, and as an important incident to a conduct of war, may adopt measures not only to repeal and defeat the enemies but to seize and subject to disciplinary measures those enemies who, in their attempt to thwart and impede our military effort, have violated the laws of war.

Like the old Penal Code, the present Revised Penal Code classifies crimes into public and private. Public crimes are those which directly prejudice society and produce a danger common to all members thereof, such as those committed against national security and the laws of nations, against the fundamental laws of state, against public order, against public in-

terest and morals; those committed by public officers as such in the exercise of their functions and others. Private crimes are those which offend or injure directly individuals, without producing alarm or danger common to other members of society, such as adultery, concubinage, rape, seduction, abduction and acts of lasciviousness.

Crime are generally classified by the Revised Penal Code into:

- (a) Crimes against national security and the law of nations,
- (b) Crimes against the fundamental laws of the state,
- (c) Crimes against public order,
- (d) Crimes against public interest,
- (e) Crimes relative to opium and other prohibited drugs,
- (f) Crimes against public morals,
- (g) Crimes committed by public officers,
- (h) Crimes against persons,
- (i) Crimes against personal liberty and security,
- (j) Crimes against property,
- (k) Crimes against chastity,
- (l) Crimes against the civil status, and
- (m) Crimes against honor.

In the prosecution of offenses, all criminal actions must be commenced either by complaint or information in the name of the People of the Philippines against all persons who appear to be responsible thereof.

All criminal actions either commenced by complaint or by information shall be prosecuted under the direction and control of the fiscal. The crimes of adultery and concubinage shall not be prosecuted except upon a complaint filed by the offended spouse. The offended party cannot institute criminal prosecution without including both the guilty parties, if they are both alive, nor, in any case, if he shall have consented or pardoned the offenders.

The offenses of seduction, abduction, rape or acts of lasciviousness, shall not be prosecuted except upon a complaint filed by the offended party or her parents, grandparents or guardian, nor in any case, if the offender has been expressly pardoned by the above-named persons, as the case may be.

Article 25 of the Revised Penal Code classifies penalties by reason of their gravity, into capital, afflictive, correctional and light. This classification corresponds to the classification of the crimes into grave felonies, which are punished with a penalty which is afflictive in any of its degrees; less grave felonies which are punished with a penalty which is correctional in its maximum degrees; and light felonies which are punished with light penalties.

The penalties of fine and bond to keep the peace, which are common to the three preceding classes, are to be considered as afflictive when the amount exceeds 6,000 pesos; correctional when the amount does not exceed 6,000 pesos but is not less than 200 pesos; and a light penalty, when the amount is less than 200 pesos. From the standpoint of the subject-matter of these penalties, they may also be classified as: corporal (penalty of death), deprivation of freedom (reclusion, prison, arresto), restriction of freedom (destierro), deprivation of rights (disqualification and suspension) and pecuniary (fine).

According to their divisibility, penalties may be classified into divisible and indivisible. Divisible penalties, as distinguished from indivisible penalties, are those that have fixed durations and are divisible into three periods: maximum, medium, and minimum. The indivisible penalties are death, reclusion perpetua, perpetual disqualification, whether absolute or special, and public censure. Penalties may also be either principal or accessory. Principal penalties are those expressly imposed by the court in the judgment of conviction in accordance with the provisions of the Revised Penal Code. Accessory penalties are those that are deemed included in the imposition of the penalties without any special pronouncement made in the judgment of conviction.

## Police Commission

The Police Commission is the main administrative police body charged with the direct supervision and control of all local police agencies in the Philippines. Under R.A. 4864, otherwise known as Police Act of 1966, it has the primary task of attaining a high degree of efficiency in the organization and operation of the local police agencies with the end in view of attaining peace and order and that the laws be enforced more effectively and impartially. It is the aim of this Commission to place the local police service on a professional level.

On September 12, 1966, the Polcom was established with the appointment of a retired AFP general as its chairman. He is assisted by a commissioner and two ex-officio members, the director of the National Bureau of Investigation and the chief of the Philippine Constabulary, respectively.

A major breakthrough in the upgrading and professionalization program of the Police Commission was achieved in late 1970 with the passage of the Peace and Order Special Account Bill and its subsequent approval by the President of the Philippines as R.A. 6141. It made possible the implementation of the salary subsidy under Section 20 of the Police Act of 1966, at the same time expanding the scope of assistance to local government. Republic Act No. 6040 amending the Civil Service Act of 1950 (R.A. 2260) vests the Police Commission with the authority to conduct police service examination. This gave the Police Commission a sound basis for the recruitment and promotion of police personnel.

One of the major activities that hasten the upgrading and professionalization of the Police Commission is the Police Training Program. This program involves diverse subjects such as fingerprinting, criminal investigation and detection, crowd control, traffic supervision, and individual skills in shooting, judo and karate. The impact of police training on the quality of police personnel and department efficiency has proved to be salutatory. An indication of this impact is the increase by 30 percent of police personnel with relevant training from 1967 to 1970.

Of the total 35,725 police strength for 1970, only 22,471 or 62.9 percent have civil service eligibilities and the remaining 13,254 or 37.1 percent do not have the required civil service eligibilities.

### *State of Peace and Order in the Philippines*

A description of the present state of peace and order in the Philippines, must of necessity, be premised on statistical data which should be analyzed and properly indexed to provide an overall factual perspective of the problem.

The Police Commission has compiled and organized pertinent data which are presented hereunder as the Police Profile depicting the police strength in 1,442 municipalities and 61 cities, the size of police departments, the educational attainments of members, their training and eligibilities. A brief discussion on police budgets in the Metropol Area is also presented followed by data on the crime incidence and crime rate, both in the metropol and nationwide bases.



### The Police Profile

The following is a sketch of the local police service as of calendar year 1970, drawn on the basis of available data:

#### 1. Total Police Strength (1970)

Estimated police strength in 1,442 municipalities	25,433
Actual police strength in 61 cities	10,292
<b>T o t a l</b>	<b>35,725</b>

#### 2. Educational Attainment, percent

	1967	1968	1969	1970
College Graduate	8.0	11.0	10.0	12.0
College Undergraduate	20.0	28.0	22.0	27.0
High School Graduate	32.0	35.0	43.0	39.0
High School Undergraduate	22.0	15.0	14.0	12.0
Elementary Graduate	14.0	8.0	8.0	7.0
Elementary Undergraduate	4.0	3.0	3.0	3.0
<b>T o t a l</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

#### 3. Training, per cent

	1967	1968	1969	1970
With Relevant Training	34.0	70.0	64.0	64.3
Without Any Training	66.0	30.0	36.0	35.7
<b>T o t a l</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

#### 4. Civil/Police Service Eligibility, per cent

	1967	1968	1969	1970
With Eligibility	55.0	62.2	61.8	62.9
Without Eligibility	45.0	37.8	38.2	37.1
<b>T o t a l</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

#### 5. Breakdown of Eligibles in Per Cent

	1967	1968	1969	1970
By Examination	40.0	55.2	51.5	51.5
By Law	15.0	6.0	8.9	10.1
Others	.0	1.0	1.4	1.3
<b>T o t a l</b>	<b>55.0</b>	<b>62.2</b>	<b>61.8</b>	<b>62.9</b>

#### 6. Size of Police Department (1970)

Size Group	In Cities		In Municipalities	
Less than 20	2	3.3	1,103	76.5
20 to 24	2	3.3	134	9.3
24 to 35	4	6.6	123	8.5
36 to 49	10	16.3	46	3.2
50 to 79	14	22.9	23	1.6
80 to 99	7	11.5	3	.2
100 to 149	7	11.5	3	.2
150 to 199	6	9.8	4	.3
200 and over	9	14.8	3	.2
<b>T o t a l</b>	<b>61</b>	<b>100.0</b>	<b>1,442</b>	<b>100.0</b>

From the preceding figures and other data the following highlights stand out:

The estimated total police strength of 35,725 policemen of all ranks, based on national population of 36,684,486 is still some 1,300 short of that number assumed to be the minimum required to sustain effectiveness in law enforcement, i.e., one policeman for every 1,000 inhabitants. (see Table IX.1) Interpol figures in fact indicate that the Philippines is one of only 16 of the 53 affiliated countries with a ratio of less than 1:1,000, along with Ceylon, Turkey, Norway, three South American countries and nine African state. (See Table IX.2)

Of that total strength, more than one-fifth (22 percent) had not finished high school, and over a thousand policemen (3 percent) did not finish even the elementary grades.

More than a third (35.7 percent) of all policeman still have had no training whatsoever, a figure that shows a marked improvement over the 1967 figure of 66 percent. The steep rise in the number of policeman with relevant police training may be attributed substantially to the direct efforts of the Polcom and in-service training within police departments.

In 1967, more than half (55 percent) of the total strength possessed civil service eligibility. This has risen to 62.9 percent by 1970.

Nearly 23 percent of the city police departments belong to the 50 to 79-man strength group; on the other hand, more than three-fourths (76 percent) of municipal police departments have a strength of less than 20 men.

Table IX.1—POLICE STRENGTH AND POLICEMAN-POPULATION RATIO: 1970

Region/Province	1970 Population	Number of Policemen	Inhabitants per Policeman	Region/Province	1970 Population	Number of Policemen	Inhabitants per Policeman
<b>Philippines</b>	<b>36,684,486</b>	<b>35,725</b>	<b>1,027</b>	<b>Camarines Sur</b>	<b>946,436</b>	<b>638</b>	<b>1,487</b>
<b>Region I</b>	<b>1,330,788</b>	<b>2,868</b>	<b>464</b>	<b>Catanduanes</b>	<b>162,202</b>	<b>66</b>	<b>2,439</b>
<b>Manila</b>	<b>1,330,788</b>	<b>2,868</b>	<b>464</b>	<b>Marikina</b>	<b>492,908</b>	<b>248</b>	<b>1,988</b>
<b>Region II</b>	<b>1,833,154</b>	<b>1,928</b>	<b>957</b>	<b>Sorsogon</b>	<b>427,047</b>	<b>218</b>	<b>1,939</b>
<b>Aklan</b>	<b>145,508</b>	<b>258</b>	<b>564</b>	<b>Region VII</b>	<b>3,785,408</b>	<b>4,160</b>	<b>910</b>
<b>Banguet</b>	<b>263,550</b>	<b>336</b>	<b>784</b>	<b>Antique</b>	<b>289,172</b>	<b>233</b>	<b>1,241</b>
<b>Iligan</b>	<b>92,487</b>	<b>61</b>	<b>1,516</b>	<b>Capiz</b>	<b>394,041</b>	<b>650</b>	<b>606</b>
<b>Iloos Norte</b>	<b>343,427</b>	<b>382</b>	<b>899</b>	<b>Iloilo</b>	<b>1,167,973</b>	<b>1,436</b>	<b>802</b>
<b>Iloos Sur</b>	<b>385,139</b>	<b>369</b>	<b>1,044</b>	<b>Negros Occidental</b>	<b>1,503,782</b>	<b>1,426</b>	<b>1,055</b>
<b>Kalinga-Apayao</b>	<b>136,249</b>	<b>120</b>	<b>1,135</b>	<b>Bohol</b>	<b>167,082</b>	<b>113</b>	<b>1,479</b>
<b>La Union</b>	<b>373,682</b>	<b>412</b>	<b>907</b>	<b>Region VIII</b>	<b>5,414,128</b>	<b>4,851</b>	<b>1,116</b>
<b>Mountain Province</b>	<b>93,112</b>	<b>60</b>	<b>1,552</b>	<b>Bohol</b>	<b>683,297</b>	<b>600</b>	<b>1,139</b>
<b>Region III</b>	<b>1,462,723</b>	<b>1,381</b>	<b>1,059</b>	<b>Cebu</b>	<b>1,634,182</b>	<b>1,840</b>	<b>888</b>
<b>Batanes</b>	<b>11,398</b>	<b>20</b>	<b>570</b>	<b>Leyte</b>	<b>1,110,626</b>	<b>936</b>	<b>1,187</b>
<b>Cagayan</b>	<b>581,237</b>	<b>418</b>	<b>1,391</b>	<b>Eastern Samar</b>	<b>271,000</b>	<b>249</b>	<b>1,088</b>
<b>Isabela</b>	<b>648,123</b>	<b>709</b>	<b>914</b>	<b>Negros Oriental</b>	<b>715,240</b>	<b>446</b>	<b>1,604</b>
<b> Nueva Visaya</b>	<b>221,965</b>	<b>234</b>	<b>949</b>	<b>Northern Samar</b>	<b>306,114</b>	<b>280</b>	<b>1,093</b>
<b>Region IV</b>	<b>5,100,092</b>	<b>3,505</b>	<b>1,351</b>	<b>Southern Leyte</b>	<b>251,425</b>	<b>146</b>	<b>1,722</b>
<b>Bataan</b>	<b>216,210</b>	<b>238</b>	<b>908</b>	<b>Western Samar</b>	<b>442,244</b>	<b>354</b>	<b>1,249</b>
<b>Bulacan</b>	<b>836,431</b>	<b>636</b>	<b>1,315</b>	<b>Region IX</b>	<b>3,016,865</b>	<b>3,160</b>	<b>955</b>
<b> Nueva Buja</b>	<b>851,294</b>	<b>693</b>	<b>1,228</b>	<b>Agusan del Norte</b>	<b>278,053</b>	<b>356</b>	<b>781</b>
<b>Pampanga</b>	<b>907,275</b>	<b>582</b>	<b>1,557</b>	<b>Agusan del Sur</b>	<b>174,682</b>	<b>159</b>	<b>1,099</b>
<b>Pangasinan</b>	<b>1,386,143</b>	<b>854</b>	<b>1,623</b>	<b>Bukidnon</b>	<b>414,762</b>	<b>204</b>	<b>2,033</b>
<b>Tarlac</b>	<b>559,708</b>	<b>452</b>	<b>1,238</b>	<b>Camiguin</b>	<b>55,913</b>	<b>60</b>	<b>899</b>
<b>Zambales</b>	<b>343,034</b>	<b>320</b>	<b>1,072</b>	<b>Lanao del Norte</b>	<b>349,942</b>	<b>441</b>	<b>794</b>
<b>Region V</b>	<b>6,827,377</b>	<b>6,912</b>	<b>981</b>	<b>Lanao del Sur</b>	<b>455,508</b>	<b>360</b>	<b>1,265</b>
<b>Batangas</b>	<b>926,308</b>	<b>733</b>	<b>1,264</b>	<b>Misamis Occidental</b>	<b>319,855</b>	<b>392</b>	<b>816</b>
<b>Cavite</b>	<b>520,180</b>	<b>592</b>	<b>879</b>	<b>Misamis Oriental</b>	<b>472,756</b>	<b>515</b>	<b>918</b>
<b>Laguna</b>	<b>699,736</b>	<b>610</b>	<b>1,147</b>	<b>Surigao del Norte</b>	<b>238,714</b>	<b>241</b>	<b>990</b>
<b>Marikina</b>	<b>144,109</b>	<b>64</b>	<b>2,252</b>	<b>Surigao del Sur</b>	<b>258,680</b>	<b>232</b>	<b>1,115</b>
<b>Occidental Mindoro</b>	<b>144,032</b>	<b>165</b>	<b>873</b>	<b>Region X</b>	<b>4,947,067</b>	<b>4,135</b>	<b>1,023</b>
<b>Oriental Mindoro</b>	<b>328,364</b>	<b>228</b>	<b>1,440</b>	<b>Cotabato</b>	<b>1,136,007</b>	<b>991</b>	<b>1,146</b>
<b>Palawan</b>	<b>236,635</b>	<b>235</b>	<b>1,007</b>	<b>Davao del Norte</b>	<b>442,543</b>	<b>363</b>	<b>1,219</b>
<b>Quezon</b>	<b>983,324</b>	<b>703</b>	<b>1,399</b>	<b>Davao del Sur</b>	<b>785,398</b>	<b>1,252</b>	<b>627</b>
<b>Rizal</b>	<b>2,844,689</b>	<b>3,632</b>	<b>783</b>	<b>Davao Oriental</b>	<b>247,995</b>	<b>190</b>	<b>1,305</b>
<b>Region VI</b>	<b>2,966,681</b>	<b>1,735</b>	<b>1,710</b>	<b>South Cotabato</b>	<b>466,110</b>	<b>393</b>	<b>1,186</b>
<b>Albay</b>	<b>673,931</b>	<b>374</b>	<b>1,802</b>	<b>Sulu</b>	<b>475,617</b>	<b>306</b>	<b>1,591</b>
<b>Camarines Norte</b>	<b>262,207</b>	<b>191</b>	<b>1,373</b>	<b>Zamboanga del Norte</b>	<b>409,379</b>	<b>387</b>	<b>1,057</b>
				<b>Zamboanga del Sur</b>	<b>1,034,018</b>	<b>953</b>	<b>1,085</b>

Source: For Population Data - Bureau of the Census and Statistics. For Number of Policemen - Police Commission.

Table IX.2 - POLICE STRENGTH AND POLICEMAN-POPULATION RATIO  
IN 53 COUNTRIES AFFILIATED WITH INTERPOL

(Reference year varies from 1965 to 1967)

C o u n t r y	Population Estimates	Total Number of Policeman	Inhabitants Per Policeman
Argentina	21,266,110	14,222	1,495
Australia	10,600,000	18,852	562
Austria	7,080,735	25,000	283
Belgium	9,499,234	28,504	333
Brazil	82,809,553	165,015	502
Burma	25,811,000	41,295	625
Canada	19,919,000	32,010	622
Central Africa, Republic of	2,088,000	590	3,539
Ceylon	10,624,000	9,586	1,108
Cyprus	605,000	2,205	274
Denmark	4,755,698	7,143	666
Ecuador	5,000,000	4,400	1,136
El Salvador	3,000,000	1,817	1,651
Ethiopia	22,520,000	30,432	740
Finland	4,646,000	8,536	544
France	48,000,000	152,000	316
Gabon	600,000	838	716
Germany, Federal Rep. of	59,040,629	145,057	407
Ghana	8,000,000	14,132	566
Greece	8,388,553	32,640	257
Hongkong	3,767,000	10,867	347
Iran	25,781,090	30,000	859
Ireland	2,880,752	6,525	441
Israel	2,648,500	6,338	418
Ivory Coast	3,500,000	1,426	2,454
Jamaica	1,811,000	2,859	633
Japan	99,060,000	155,590	637
Korea	29,207,856	39,770	734
Kuwait	500,000	8,481	59
Laos	2,635,118	5,075	519
Lebanon	2,300,000	6,385	360
Luxembourg	333,300	687	485
Mauritania	1,100,000	185	5,946
Monaco	20,441	182	112
Netherlands	12,377,000	14,799	836
New Zealand	2,678,000	2,751	973
Niger (Republic of)	3,490,000	827	4,220
Nigeria	55,000,000	17,821	3,086
Norway	3,700,000	3,367	1,099
Peru	12,385,200	31,141	398
Philippines	33,477,000	31,244	1,071 a/
Portugal	9,000,000	21,255	423
Sierra Leone	2,183,000	2,083	1,048
Spain	30,750,000	72,700	423
Sweden	7,490,000	11,991	625
Switzerland	6,100,000	9,180	664
Tanzania	11,000,000	9,095	1,209
Thailand	29,116,290	56,755	513
Togo	1,650,000	386	4,275
Turkey	31,391,207	16,222	1,935
United Kingdom	54,435,700	98,096	555
Upper Volta	5,540,000	404	13,713
Zambia	3,780,000	6,809	535

a/ Decreased to 1,036 per 1970 data.

Source: Police Commission.

## Police Appropriations in the Metropol Area<sup>1</sup> (FY 1970)

### Police Budget

The combined police budget of the four cities and nine municipalities in the Metropol Area amounted in FY 1970 to ₱34,179,663 out of a total city/municipality budget of ₱206,761,749. Manila, as in the past, was the highest with a police budget of ₱20,596,910; Navotas was the lowest with only ₱216,997.

While the estimated population in the Metropol Area increased by only 73,300 inhabitants or 2.3 percent in FY 1970 compared to the previous fiscal year, police appropriations rose by ₱6,690,185, or 24 percent. The total city/municipal budget, on the other hand, increased by about 19 percent.

Only Quezon City registered a decrease in its police budget, down by ₱73,883 or 2 percent from the previous fiscal year. The highest increase was recorded by Manila, up by ₱4,042,408. Percentagewise, however, Caloocan led with a police budget increase of 94 percent.

Contribution to the police budget rose from ₱8.44 per inhabitant per year in FY 1969 to ₱10.27 in FY 1970, and by ₱1.83 or 22 percent. This is an encouraging indications that local governments in the Metropol Area have been increasing their investments in public safety.

### Crime in the Philippines

During 1970, an estimated total of 266,782 violations of laws or felonies were committed throughout the country, 27.0 percent less than the 1969 incidence of 365,475 violations. Of the total, 72,502 (or 27.2 percent) were crimes against persons, 105,262 (39.5 percent) against property, 5,850 (2.2 percent) against chastity, 45,401 (17.0 percent) against morals and order, and 37,767 (14.1 percent) were other crimes. (Tables IX.3.)

Table IX.3 - CRIME INCIDENCE AND CRIME RATE IN THE PHILIPPINES: 1970

Classification of Offenses	Total Number of Offenses	Crime Rate Per 100,000 Population	Percentage
<b>Total</b>	<b>266,782</b>	<b>720</b>	<b>100.00</b>
<b>Crimes vs. Persons</b>	<b>72,502</b>	<b>197</b>	<b>27.18</b>
Homicide	6,558	17	2.45
Paricide & Infanticide	13,293	36	4.98
Physical Injuries	607	2	0.23
Maltreatment	49,481	133	18.55
	2,583	7	0.97
<b>Crimes vs. Property</b>	<b>105,262</b>	<b>284</b>	<b>39.45</b>
Robbery	24,546	66	9.20
Theft	46,768	126	17.53
Extortion and Extortion	9,560	26	3.58
Malignant Mischief	10,512	28	3.94
Damage to Property	13,876	38	5.20
<b>Crimes vs. Chastity</b>	<b>5,850</b>	<b>16</b>	<b>2.19</b>
Rape	2,355	6	0.80
Abduction	942	3	0.35
Seduction	388	1	0.15
Lascivious Acts	2,165	6	0.81
<b>Crimes vs. Morals and Order</b>	<b>45,401</b>	<b>123</b>	<b>17.02</b>
Prostitution	112	0	0.04
Vagrancy	10,466	28	3.92
Alarm & Scandal	5,368	14	1.91
Assault/Resist to Authority	3,032	8	1.14
Corruption of Public Official	218	1	0.08
Gambling	2,925	8	1.10
Slander & Libel	6,051	17	2.27
Threat & Coercion	14,153	38	5.30
Trespassing	2,912	8	1.09
Prohibited Drugs	444	1	0.17
<b>Other Crimes</b>	<b>37,767</b>	<b>102</b>	<b>14.16</b>
Firearms, Illegal Possession	2,607	7	0.98
Explosive/Amo., Illegal Possession	832	2	0.31
Deadly Weapon, Concealing	7,178	19	2.69
Drunk & Disorderly Conduct	7,817	21	2.93
Smuggling & Other BIR Violations	294	1	0.11
All Other Felonies	19,039	52	7.14

Source: Police Commission

1/ Police Commission Metropolitan Area consists of four cities and nine municipalities.

On the basis of the 1970 population of 36,684,486 the total crime incidence gives a national crime rate of 720 per 100,000 inhabitants, 26.7 percent lower than in 1969. All classes of crime registered a drop in rate. By type of offense, only three registered increases—murder 2.5 percent, vagrancy 5.7 percent and gambling 6.3 percent, as shown in Table IX.4.

Table IX.4 - CRIME INCIDENCE IN THE PHILIPPINES, 1969 AND 1970

Classification of Offenses	Calendar Year		Absolute Increase/Decrease	'Percentage Increase/Decrease over the previous year
	1969	1970		
Total	<u>365,475</u>	<u>266,782</u>	(98,693)	(27.0)
I. Crimes vs. Persons	<u>100,739</u>	<u>72,502</u>	(28,237)	(28.0)
Murder	6,379	6,538	159	2.5
Homicide	15,583	13,293	(2,290)	(14.7)
Parricide & Infanticide	623	607	(16)	(2.6)
Physical Injuries	74,178	49,481	(24,697)	(33.3)
Maltreatment	3,976	2,583	(1,393)	(35.0)
II. Crimes vs. Property	<u>148,003</u>	<u>105,262</u>	(42,741)	(28.9)
Robbery	30,823	24,546	(6,277)	(20.4)
Theft	65,697	46,768	(18,929)	(28.8)
Estate & Falsification	15,538	9,560	(5,978)	(38.5)
Malicious Mischief	13,101	10,512	(4,589)	(30.4)
Damage Property	20,844	13,876	(6,968)	(33.4)
III. Crimes vs. Chastity	<u>8,181</u>	<u>5,850</u>	(2,331)	(28.5)
Rape	3,253	2,355	(898)	(27.6)
Abduction	1,383	942	(441)	(31.9)
Seduction	568	388	(180)	(31.7)
Lascivious Acts	2,977	2,165	(812)	(27.3)
IV. Crimes vs. Morals/Order	<u>59,867</u>	<u>45,401</u>	(14,466)	(24.2)
Prostitution	240	112	(128)	(53.3)
Vagrancy	9,896	10,466	570	5.7
Alarm and Scandal	7,232	5,088	(2,144)	(29.6)
Assault/Resist to Authority	4,671	3,032	(1,639)	(35.1)
Corruption of Public Official	429	218	(211)	(49.2)
Gambling	2,751	2,925	174	6.3
Slander & Libel	9,421	6,051	(3,370)	(35.8)
Threat and Coercion	19,398	14,153	(5,245)	(27.0)
Trespassing	4,962	2,912	(2,050)	(41.3)
Prohibited Drugs	867	444	(423)	(48.8)
V. Other Crimes	<u>48,685</u>	<u>37,767</u>	(10,918)	(22.3)
Firearms, Illegal Possession	3,683	2,607	(1,076)	(29.2)
Explosives/Ammo. Illegal Possession	1,394	832	(562)	(40.3)
Deadly Weapon, Concealing	9,637	7,178	(2,459)	(25.5)
Drunk & Disorderly Conduct	8,173	7,817	(356)	(4.3)
Smuggling & Other BIR Violations	671	294	(377)	(56.2)
All other Felonies	25,127	19,039	(6,088)	(24.2)

Source: Police Commission

There are six major penal institutions in the country where prisoners are confined namely; the New Bilibid Prison, the Correctional Institution for Women, the San Ramon Prison and Penal Farm, the Iwahig Penal Colony, the Davao Penal Colony, and Sablayan Penal Colony and Farm. Aside from the six, other places for the purpose are the Manila Office, other stations and different courts. There were approximately 20,850 prisoners confined at various penal institutions in the Philippines in 1970, an increase of 1,077 or approximately 5 percent over that of 1969. As of June 30, 1970 the bulk (96.5 percent) of the 20,850 confinees were to be found in six (6) major institutions mentioned. The other (3.50 percent) were distributed among the Manila Office, other stations and different courts. Of these major institutions, the New Bilibid Prison has the biggest number of prisoners confined numbering 9,494 which is double that of the combined prisoners of two thickly populated institutions, the Davao Penal Colony, and the Iwahig Penal Colony, numbering 4,285 and 4,017, respectively. (See Table IX.5).

The civil status of prisoners confined is presented in Table IX.6. Of the total 20,850 prisoners confined in 1970, approximately 9,353 or 44.86 percent were single, 10,457 or 50.15 percent were married and 1,040 or 4.99 percent were widowers.

Table IX.5 - NUMBER OF PRISONERS CONFINED FROM VARIOUS PENAL INSTITUTIONS: FY 1966 - 1970

Penal Institution	1966		1967		1968		1969		1970	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	17,703	100.00	19,201	100.00	19,221	100.00	19,773	100.00	20,850	100.00
New Bilibid Prison <sup>1/</sup>	7,084	40.02	7,937	41.34	9,133	47.51	8,504	43.01	9,494	45.53
Correctional Institution for Women <sup>1/</sup>	182	1.03	182	0.95	171	0.89	154	0.78	165	0.79
San Ramon Prison and Penal Farm <sup>1/</sup>	781	4.41	721	3.75	700	3.64	693	3.50	900	4.32
Iwahig Penal Colony	3,969	22.42	4,257	22.17	3,540	18.42	4,159	21.03	4,017	19.27
Davao Penal Colony	3,358	18.97	3,609	18.80	3,828	19.92	4,457	22.54	4,285	20.55
Sablayan Penal Colony and Farm	1,551	8.76	1,757	9.15	1,195	6.22	1,105	5.59	1,260	6.04
Manila Office	259	1.46	288	1.50	274	14.25	263	1.33	342	1.64
Other Stations	422	2.38	360	1.87	280	1.46	304	1.54	225	1.08
Different Courts	97	0.55	90	0.47	100	0.52	134	0.68	162	0.78

<sup>1/</sup> Institutions receiving prisoners direct from court (new prisoners). The New Bilibid Prison in addition receives surrendered or captured prisoners and transfers from other institutions.

Source: Department of Justice, Bureau of Prison.

Table IX.6 - NUMBER OF PRISONERS CONFINED FROM PENAL INSTITUTIONS BY MARITAL STATUS: 1965 - 1970

Marital Status	1965		1966		1967		1968		1969		1970	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	17,214	100.00	17,703	100.00	19,201	100.00	19,221	100.00	19,773	100.00	20,850	100.00
Single	7,326	42.56	7,494	42.33	8,266	43.05	8,251	42.93	8,495	42.96	9,353	44.86
Married	8,915	51.79	9,354	52.84	9,944	51.79	10,168	52.90	10,453	52.92	10,457	50.15
Widower	973	5.65	855	4.83	991	5.16	802	4.17	815	4.12	1,040	4.99

Source: Department of Justice, Bureau of Prisons.

By age group, the first three groups that comprised the majority of prisoners were those who belonged to age group 21-25 with 6,248 or 30 percent; those aged 26-30 with 4,723 or 23 percent and those who belonged to age group 16-20 with 2,652 or 13 percent. (See Table IX.7).

Among the prisoners confined from Penal Institution by vocation; the bulk was accounted for by farmers throughout the period from 1965 to 1969. Of the total 19,773 prisoners confined as of June 30, 1969, 8,477 were farmers, 6,352 were laborers, 1,381 other occupations, and the remaining 3,563 were of various occupations. (See Table IX.8).

Table IX.7 - NUMBER OF PRISONERS CONFINED BY AGE GROUP: FY 1965 - 1970

Age	1965	1966	1967	1968	1969	1970
Total	17,214	17,703	19,201	19,221	19,773	20,850
16 - 20	2,110	1,989	2,620	2,819	2,850	2,652
21 - 25	4,234	4,395	5,379	5,270	6,127	6,248
26 - 30	3,440	3,324	3,850	3,925	4,200	4,723
31 - 35	2,589	2,585	2,514	2,808	2,491	2,567
36 - 40	1,746	2,015	1,746	1,790	1,633	1,908
41 - 45	1,057	1,209	1,076	1,097	979	1,035
46 - 50	808	906	891	715	700	841
51 - 55	625	618	565	362	372	434
56 - 60	323	326	331	227	254	282
61 - 65	134	187	149	152	116	160
66 - 70	98	108	48	32	32	-
71 & over	50	41	32	24	19	-

Source: Department of Justice, Bureau of Prisons.

Table IX.8 - NUMBER OF PRISONERS CONFINED FROM PENAL INSTITUTIONS BY VOCATIONS: FY 1965 - 1969

Vocation	1965	1966	1967	1968	1969
Total	5,093	4,299	4,619	3,547	3,563
Agent	27	18	9	-	3
Barber	167	177	204	194	200
Businessman-Businesswoman	98	117	112	93	70
Carpenter	651	552	584	461	479
Cashier	-	-	-	-	-
Clerk	36	29	35	31	-
Cook	63	49	33	20	-
Driver	806	548	656	529	569
Fisherman-Fishewoman	643	667	809	567	525
Government employee	106	79	96	67	86
Hospital attendant	2	2	2	2	-
Houseboy-Housegirl	148	133	106	69	64
Housekeeper	56	42	46	42	62
Jobless	230	237	214	145	215
Laundryman-Laundrywoman	90	76	61	36	34
Mechanic	220	154	184	161	133
Merchant	107	79	50	28	-
Peddler	279	256	253	187	191
Professional	15	10	18	19	21
Proprietor-Proprietress	5	3	4	2	2
Salesman-Saleswoman	74	42	30	21	-
Seamstress	10	15	13	10	7
Security Guard	35	28	30	-	-
Soldier	58	51	53	40	-
Skilled Laborer	867	666	703	579	746
Student	168	159	196	149	156
Tailor	85	71	66	44	-
Teacher	21	20	31	26	-
Typist	26	19	21	25	-

Source: Department of Justice, Bureau of Prisons

Table IX.9 shows a breakdown of the number of prisoners confined by court of conviction by province. The courts that convicted the most number of prisoners confined as of June 30, 1970 were of Manila 2,835, Samar 1,500, Rizal 1,400, Cebu 1,327 and Leyte 1,277.

Table IX.9 - NUMBER OF PRISONERS CONFINED FROM PENAL INSTITUTIONS BY COURT CONVICTION  
FY 1965 - 1970

Province/Agency	1965	1966	1967	1968	1969	1970
<b>T o t a l</b>	<b>17,080</b>	<b>17,578</b>	<b>19,128</b>	<b>19,129</b>	<b>19,694</b>	<b>20,783</b>
Abra	57	54	47	61	50	63
Agusan	202	229	253	241	195	207
Aklan	99	158	172	196	112	104
Albay	143	108	116	101	209	282
Antique	78	81	92	121	99	117
Basilan	184	170	166	163	180	227
Bataan	41	37	33	43	36	28
Batanes	12	8	13	10	14	15
Batangas	390	518	543	495	529	541
Bohol	252	247	273	231	239	239
Gukidnon	182	180	197	182	226	281
Bulacan	214	236	244	196	202	245
Cagayan	406	534	498	475	514	461
Camarines Norte	114	124	139	149	137	147
Camarines Sur	146	181	222	249	222	275
Capiz	252	226	247	232	238	244
Catanduanes	46	33	27	31	43	50
Cavite	79	81	92	80	64	62
Cebu	945	1,050	1,177	1,225	1,353	1,327
Cotabato	419	396	424	386	368	393
Davao	545	632	627	560	492	572
Ilocos Norte	222	244	247	239	251	218
Ilocos Sur	173	157	143	151	189	163
Iloilo	649	662	784	653	560	521
Isabela	248	233	280	256	198	173
La Union	147	235	186	188	169	132
Laguna	251	179	233	248	230	274
Lanao	223	189	265	255	236	202
Leyte	1,247	1,148	1,268	1,264	1,241	1,277
Manila	2,175	1,900	1,955	2,090	2,531	2,835
Marinduque	53	34	50	58	61	46
Masbate	152	167	208	236	275	250
Misamis Occidental	240	73	398	345	333	363
Misamis Oriental	285	170	262	235	245	258
Mountain Province	195	226	202	238	226	210
Negros Occidental	729	271	859	821	849	801
Negros Oriental	310	187	278	259	266	282
Nueva Ecija	220	790	230	247	240	282
Nueva Vizcaya	143	258	136	113	108	80
Occidental Mindoro	74	229	112	121	141	148
Oriental Mindoro	147	147	253	262	241	197
Palawan	36	38	47	49	50	55
Pampanga	197	176	182	187	182	204
Pangasinan	404	490	470	425	422	525
Quezon	438	446	474	470	459	687
Rizal	726	753	812	1,014	1,031	1,400
Romblon	66	53	62	80	88	50
Samar	974	1,144	1,426	1,473	1,543	1,500
Sorsogon	163	154	161	164	162	127
Sulu	142	143	148	171	178	143
Surigao	370	362	319	332	327	305
Tarlac	150	148	157	181	178	130
Zambales	107	121	105	130	118	150
Zamboanga del Norte	418	488	514	457	509	537
Zamboanga del Sur	200	280	280	290	335	378

Source: Department of Justice, Bureau of Prisons.



Table IX.10 shows the number of prisoners confined, received and dropped since 1961 to 1970. Only three of the six major penal institutions received prisoners direct from courts while those received at the New Bilibid Prison include prisoners from different courts, recaptured and surrendered, and from other institutions.

Table IX.10 - NUMBER OF PRISONERS CONFINED, RECEIVED AND DROPPED FROM PENAL INSTITUTIONS: FY 1961-1970

Fiscal Year	Confined as of July 1st	Received <sup>1/</sup>	Dropped <sup>2/</sup>
1961 - 62	14,518	10,672	10,263
1962 - 63	15,032	11,056	10,542
1963 - 64	16,168	10,989	9,853
1964 - 65	17,214	11,608	10,562
1965 - 66	17,703	11,425	10,936
1966 - 67	19,201	11,710	10,212
1967 - 68	19,221	11,120	11,100
1968 - 69	19,773	14,250	13,698
1969 - 70	20,850	13,628	12,551

<sup>1/</sup> Only the New Bilibid Prison, Correctional Institution for Women and San Ramon Prison and Penal Farm receive prisoners direct from courts. Received at the New Bilibid Prison include prisoners received from different courts, recaptured and surrendered, and from other institutions.

<sup>2/</sup> Includes prisoners who were released (expiration of sentence) paroled, who escaped from or died in prison.

Source: Department of Justice, Bureau of Prisons.

## Crime in the Metropol Area

The Metropol Area consists of four cities (Manila, Quezon, Pasay and Caloocan) and nine municipalities (Las Piñas, Makati, Malabon, Mandaluyong, Marikina, Navotas, Parafiaque, Pasig and San Juan), all of which are situated within the geographic perimeter of Rizal province. On the whole, it is a highly urbanized area with heterogenous population of 3,722,457 (1970 estimate) plus a "floating" population of tens of thousands more composed of community workers, students and out-of-town visitors. Servicing the area, where the population concentration as in Manila reaches as high as 34,219 persons per square kilometer, is a total of 5,778 police personnel or one policeman for every 674 residents (as against the national policeman-to-population ratio of 1:1,036).

### Metropol Crime Incidence.

A total of 62,842 crimes were committed in the Metropol Area during 1970 (against 63,422 in 1969), 25,856 of them in Manila and 36,986 in the three other cities and the nine municipalities. The 1970 incidence shown in Table IX.12 was 580 offenses less than in 1969. Ordinance violations, segregated from the above crime data, totaled 10,376 (against 27,073 in 1969), or a drop of 61.7 percent.

Of the Metropol incidence 12,452 were against persons, 26,065 against morals and order and 10,151 other crimes.

### Metropol Crime Rate.

With the combined Metropol population as basis, the above incidence gives a crime rate of 1,888 per 100,000, compared to 1,948 in 1969, 2,398 in 1968 and 2,503 in 1967. There was thus a 3.1 percent drop in the Metropol Area compared to the previous year, down 25 percent from 1967. The rate for ordinance violations was 311 per 100,000 or 62.6 percent down for the 1969 figure of 832.

Compared with 1969 figures, the rate for crimes against chastity was down by 5.7 percent crimes against morals and order by 9.4 percent and other crimes by 13.4 percent. Crimes against persons and crimes against property, however, registered nominal increases of 2.1 percent and 5.9 percent, respectively.

The crime rate (highest to lowest) and crime incidence in the Metrop Area during Calendar Year 1970 are broken down by city and municipality as follows:

City/Municipality	RANK		RATE PER	NUMBER OF
	1970	1969	100,000	OFFENSES
San Juan	1	3	4,195	3,331
Parañaque	2	5	3,381	2,945
Marikina	3	1	3,207	1,809
Pasig	4	7	2,625	2,284
Mandaluyong	5	2	2,441	2,483
Las Piñas	6	8	2,437	546
Pasay	7	4	2,368	4,346
Caloocan	8	6	2,263	4,717
Makati	9	9	2,065	3,358
Navotas	10	12	1,686	1,158
Manila	11	10	1,634	25,856
Quezon	12	11	1,535	8,981
Malabon	13	13	963	1,028
Ave. Total			1,888*	62,842
National			720**	266,782

\* Total Number of offense committed over estimated total population of Metrop Area equals the ave/total of crime rate per 100,000 inhabitants.

\*\* Total number of offenses committed over total population of the Philippines for 1970 equals the ave/total of crime rate per 100,000 inhabitants.

Source: Police Commission.

Table IX.11 - POLICE STRENGTH AND POLICEMAN-POPULATION RATIO  
METROPOL AREA: 1970

City/ Municipality	1970 Population	Number of Policeman	Inhabitants Per Policeman
Total	3,722,457	5,778	644
Caloocan	274,453	298	921
Manila	1,330,788	2,868	464
Pasay	206,283	286	721
Quezon	754,452	885	852
Las Piñas	45,732	74	618
Makati	264,918	423	626
Malabon	141,514	137	1,033
Mandaluyong	149,407	222	673
Marikina	113,400	102	1,112
Navotas	83,245	62	1,343
Parañaque	97,214	121	803
Pasig	156,492	163	960
San Juan	104,559	137	763

Source: Police Commission

Table IX.12 - CRIME INCIDENCE IN THE METROPOL AREA: 1969 - 1970

Classification of Offenses	1969	1970	Increase/Decrease	
			Number	Percent
Grand Total	<u>63,422</u>	<u>62,842</u>	(580)	(0.9)
<u>I. Crimes vs. Persons</u>	<u>11,926</u>	<u>12,452</u>	<u>526</u>	<u>4.4</u>
Murder	507	651	144	28.4
Homicide	2,508	2,896	388	15.5
Parricide	57	34	(23)	(40.4)
Physical Injuries	8,135	8,382	247	3.0
Maltreatment	719	489	(230)	(31.9)
<u>II. Crimes vs. Property</u>	<u>24,774</u>	<u>26,065</u>	<u>1,291</u>	<u>5.2</u>
Robbery	7,784	8,801	1,017	13.1
Theft	10,089	9,905	(184)	(1.8)
Estafa & Falsification	2,407	2,190	(217)	(9.0)
Malicious Mischief	2,915	2,683	(232)	(7.9)
Damage to property	1,579	2,486	907	57.4
<u>III. Crimes vs. Chastity</u>	<u>1,137</u>	<u>1,084</u>	<u>(53)</u>	<u>(4.7)</u>
Rape	434	443	9	2.1
Abduction	242	207	(35)	(14.5)
Seduction	84	73	(11)	(13.1)
Lascivious Acts	377	361	(16)	(4.2)
<u>IV. Crimes vs. Morals and Orders</u>	<u>14,128</u>	<u>13,090</u>	<u>(1,038)</u>	<u>(7.3)</u>
Prostitution	100	13	(87)	(87.0)
Vagrancy	5,662	5,286	(376)	(6.6)
Alarm & Scandal	419	849	430	102.6
Assault/Resist to Authority	548	450	(98)	(17.9)
Corruption to Public Officials	86	64	(22)	(25.6)
Gambling	557	718	161	28.9
Slander & Libel	1,764	1,292	(472)	(26.8)
Threat and Coercion	3,636	3,429	(207)	(5.7)
Trespassing	944	774	(170)	(18.0)
Prohibited Drugs	412	215	(197)	(47.8)
<u>V. Other Crimes</u>	<u>11,457</u>	<u>10,151</u>	<u>(1,306)</u>	<u>(11.4)</u>
Firearms, Illegal Possession	371	397	26	7.0
Explosives/Ammo., Illegal Possession	100	94	(6)	(6.0)
Deadly Weapon, Concealing	2,014	2,142	128	6.4
Drunk & Disorderly Conduct	951	1,011	60	6.3
Smuggling & Other BIR violations	92	34	(58)	(63.0)
All other felonies	7,929	6,475	(1,456)	(18.4)
All Other Ordinances <sup>1/</sup>	<u>27,073</u>	<u>10,376</u>	<u>(16,697)</u>	<u>(61.7)</u>

<sup>1/</sup> Ordinance violations are not included in total.

Source: Police Commission.

## CHAPTER X — LAND USE AND RENEWABLE RESOURCE DEVELOPMENT

The 30,000,000-hectare land of the Philippines, its territorial waters, the wildlife as well as the plant growth therein are essentially what the Philippines has with which it could start the process of building a nation that can well provide for the economic and social needs of the people. However, this depends to a large extent on how these resources are used and developed by the people.

Proper management and wise utilization founded on scientific bases are aspects which should be taken into consideration in order to bring about the desired end. Government agencies have been created to supervise and coordinate all activities pertaining to the efficient utilization and conservation of these resources. Researches have been financed by the government, and private institutions have pledged their support in order to find out ways and means which could rightfully pave the way for the efficient and scientific development of these resources.

With the cooperation, therefore, of the public and private sectors it would not be impossible to achieve an economically stable nation which will bring about a socially healthy environment for this generation and the generations hence.

### Government Agencies Concerned with Resource Use and Development

The growing realization that the development of an agricultural country such as the Philippines depends to a large extent on the efficient and wise utilization of the country's natural resources has impelled the government to take the necessary steps to avert possible crises in the future. Government agencies have been created with the sole responsibility of seeing to it that the natural resources benefit the people now and the years to come.

The Department of Agriculture and Natural Resources is the national entity charged with the planning and development of a sound agriculture and wise utilization of the nation's natural resources. It has fifteen agencies to perform specialized, well-integrated functions to fulfill its goal. For an effective and systematic control and supervision, these agencies are divided into the agricultural group, the natural resources group and the corporation group. The agricultural group includes the Bureau of Plant Industry, the Bureau of Soils, the Bureau of Animal Industry, the Bureau of Agricultural Economics, and the Abaca and Other Fibers Development Board.

The natural resources group consists of six agencies; namely, the Philippine Fisheries Commission, the Bureau of Forestry, the Bureau of Lands, the Bureau of Mines, the Parks and Wildlife Office and the Reforestation Administration. With only four agencies, the corporation group, composed of the Abaca Corporation of the Philippines, the Philippine Coconut Administration, the Philippine Sugar Institute and the Philippine Tobacco Administration, deals with the development and production of specific agricultural products.

Charged with providing and maintaining a constant and safe water supply for the populace is the National Waterworks and Sewerage Authority. It achieves its aims through the help of the Bureau of Public Works which builds the necessary pipes, dams and aqueducts. The hydro-electric power derived from water through a series of energy transformation comes hand in hand with water resources development. This particular undertaking is carried out through the National Power Corporation and Electrification Administration.

These agencies are equipped with an advisory and technical staff and experts who provide the necessary bases for sound programs.

## RESOURCE DEVELOPMENT PROGRAMS

### Water Supply, Development and Conservation

The government policy of supplying adequate potable water to the populace is one of the reasons that brought about the creation of the National Waterworks and Sewerage Authority (NWSA). Created on June 18, 1955 under Republic Act 1383, the primary aim of this government corporation is to centralize all waterworks and sewerage systems in the country. This includes the maintenance and expansion of the facilities of the system on the basis of the people's needs.

The NWSA has ample facilities to maintain the required standard specification of potable water. The Balara Filtration Plant houses all the facilities necessary for the treatment of raw water to make it safe and potable. Water reaches the end-users through capillary pipes after undergoing the processes of mixing, flocculation, sedimentation, filtration and chlorination. Throughout these processes chemicals such as copper sulphate, aluminum sulphate, ferric chloride, lime and chlorine are used.

The present waterworks system is basically the Angat-Novaliches-Balara System, the usable facilities of the Montalban and Carriedo Systems, and the improvements made during the intervening years. This included the construction of filtration plants, accelerators, aqueducts, tanks, pumping stations and other improvement designed to increase the capacity of the plants by several million gallons per day. But with the population increases experienced through the years and the expected expansion in the near future this system would be unable to cope with the demand for water.

In order to be able to supply water to the ever increasing population, the NWSA and the IBRD (International Bank for Reconstruction and Development) jointly engaged the services of Metcalf and Eddy Limited, consulting engineers of Boston, to review the project studies of the NWSA and draw up an interim program for the immediate improvement of the Manila and Suburbs Waterworks System.

From these studies was evolved a program of Interim Improvements involving three phases; namely, the supply phase, the treatment phase and the distribution phase. The supply phase considered the Angat River supply as the logical source of development due to the construction of the Angat Multi-Purpose project. This phase included the construction of two equal capacity tunnels from Ipo to Novaliches, which were seen to be economical and practical in delivering the 500 million gallons of water per day or more from the Angat source.

The treatment phase includes the construction of pre-treatment facilities for the newly completed Second Balara Filtration Plant in order to fully utilize its rated capacity of 120 million gallons per day. This pre-treatment plant includes a Parshall flume for chemical mixing and flow measurement, six flocculation basins with mechanical flocculators and six sedimentation basins. These facilities provide a 30-minute flocculation period and a three-hour detention period for sedimentation at a design flow of 100 million gallons per day permitting an overload capacity of 150 million gallons per day.

The Interim Program distribution system consists of 1,380 kilometers of pipelines ranging from 2 to 54 inches in diameter. The distribution uses the gravity system with the aid of several pumping stations and storage reservoirs to boost pressures in high and remote areas.

This project, however, is designed to provide the water needs of the Manila and suburban populace only. In the provinces, the NWSA conducts barrio spring and artesian well development programs to provide potable water to the rural folks. Table X.1 shows the number of artesian wells and springs developed by the NWSA.

**TABLE X.I- ESTIMATED POPULATION SERVED BY DEVELOPED  
SPRINGS AND ARTESIAN WELLS: FY 1955-1969**

Fiscal Year	Number of Existing Springs Developed	Number of Artesian Wells Developed <sup>1/</sup>	Estimated Population Served
1954-55	99	4,513	1,208,370
1955-56	194	7,207	1,941,620
1956-57	297	11,020	2,992,730
1957-58	611	13,211	3,684,730
1958-59	1,107	14,849	4,409,010
1959-60	1,457	15,986	5,008,910
1960-61	1,938	16,932	5,411,000
1961-62	1,980	18,189	5,807,250
1962-63	1,990	18,805	5,975,790
1963-64	1,995	19,270	6,093,340
1964-65	2,000	19,498	6,155,930
1965-66	2,049	19,791	6,252,430
1966-67	2,061	19,997	6,311,180
1967-68	2,062	20,063	6,328,180
1968-69	2,062	20,240	6,372,432

<sup>1/</sup> Excluding pre-war wells

Source: Annual Report of the National Waterworks and Sewerage Authority, Fiscal Year 1968-69.

Since 1955 there had been increases in the springs and wells developed. During the period under study, fiscal year 1957-58 recorded the most number of springs developed, experiencing an increase of about 105.72 percent relative to the previous year. Meanwhile, the artesian wells developed rose by 2,694 during the year 1955-56, an increase of almost 60 percent over the previous year. Succeeding years showed very little progress in the spring and well development program.

**Table 1.3—ESTIMATED POPULATION SERVED BY ARTESIAN WELLS AND DEVELOPED SPRINGS BY PROVINCE:  
AS OF JUNE 30, 1969**

Province	Number of Artesian Wells	Population Served	Number of Springs	Population Served	Total Popula- tion Served by Wells & Springs
Total	20,240	5,060,000	2,062	1,312,432	6,372,432
Abra	157	39,250	27	10,704	49,954
Agusan	265	66,250	-	-	66,250
Aklan	186	46,500	-	-	46,500
Albay	292	73,000	74	65,143	138,143
Antique	317	79,250	19	12,029	91,279
Bataan	148	37,000	1	500	37,500
Batanes	14	3,500	2	385	3,885
Batangas	1,148	287,000	49	36,230	323,230
Bohol	532	133,000	192	90,045	223,045
Bukidnon	108	27,000	9	9,050	36,050
Bulacan	654	163,500	-	-	163,500
Cagayan	461	115,250	1	1,095	116,345
Camarines Norte	175	43,750	1	800	44,550
Camarines Sur	452	113,000	51	31,971	144,971
Capiz	330	82,500	-	-	82,500
Catanduanes	198	49,500	14	12,045	61,545
Cavite	490	122,500	16	14,227	136,727
Cebu	812	203,000	87	36,063	239,063
Cotabato	256	64,000	12	6,588	70,588
South Cotabato	214	53,500	10	5,490	58,990
Davao del Norte	300	75,000	10	9,420	84,420
Davao del Sur	210	52,500	17	16,008	68,508
Davao Oriental	181	45,250	1	940	46,190
Ilocos Norte	340	85,000	29	10,280	95,280
Ilocos Sur	427	106,750	57	26,030	132,780
Iloilo	747	186,750	106	39,134	225,884
Isabela	466	116,500	6	2,970	119,470
Laguna	391	97,750	71	52,440	150,190
Lanao del Norte	198	49,500	11	14,786	64,286
Lanao del Sur	130	32,500	51	41,634	74,134
La Union	290	72,500	51	29,360	101,860
Leyte	736	184,000	136	88,349	272,349
Leyte del Sur	234	58,500	60	38,425	96,925
Marinduque	160	40,000	33	23,455	63,455
Masbate	238	59,500	9	3,633	63,133
Mindoro Occidental	162	40,500	1	500	41,000
Mindoro Oriental	204	51,000	2	1,100	52,100
Misamis Occidental	294	73,500	83	58,068	131,568
Misamis Oriental	421	105,250	27	31,636	136,886
Camiguin	7	1,750	5	2,500	4,250
Mountain Province	40	10,000	22	10,230	20,230
Benguet *	20	5,000	54	25,110	30,110
Ifugao *	20	5,000	37	17,185	22,185
Kalinga-Apayao	21	5,250	3	1,390	6,640
Negros Occidental	493	123,250	116	71,450	194,700
Negros Oriental	368	92,000	20	9,411	101,411
Nueva Ecija	631	157,750	2	1,660	159,410
Nueva Vizcaya	125	31,250	2	900	32,150
Palawan	194	48,500	6	3,250	51,750
Pampanga	605	151,250	-	-	151,250
Pangasinan	860	215,000	9	5,950	220,950
Quezon	456	114,000	102	44,455	158,455
Rizal	413	103,250	-	-	103,250
Romblon	157	37,750	27	22,801	60,551
Eastern Samar	230	57,500	25	21,150	78,650
Northern Samar	213	53,250	31	26,230	79,480
Western Samar	200	50,000	42	35,535	85,535
Sorsogon	237	59,250	91	56,079	115,329
Sulu	128	32,000	2	2,400	34,400
Surigao del Norte	81	20,250	51	47,423	67,673
Surigao del Sur	86	21,500	14	16,840	38,340
Tarlac	420	105,000	-	-	105,000
Zambales	284	71,000	1	1,000	72,000
Zamboanga del Norte	238	59,500	17	9,746	69,246
Zamboanga del Sur	381	95,250	57	59,204	154,454

Source: NAWASA Annual Report, Fiscal Year 1968-1969.

During the fiscal year 1968-69, an artesian well served the needs of an average of 250 people, while springs were used by a greater number, reaching an average of 636 people. In almost all provinces, there were more artesian wells than developed springs with the exception of the provinces of Benguet and Ifugao. About 79.40 percent of the estimated population served by wells and springs derive their water supply from artesian wells while the meager 20.60 percent utilize springs for their water needs.

Water potentials of the country have also been harnessed to produce electric power. The National Power Corporation organized on November 3, 1961 under Commonwealth Act 120 undertakes the development of hydraulic power. To serve its purpose it constructed hydro-electric plants from various water potentials. Furthermore, it sees the possibility of constructing more hydro-electric plants to provide low-cost hydro-electric power to the people.

Meanwhile, the Electrification Administration pursues a rural electric program. It sees the economic feasibility of serving small isolated rural areas by developing power resources of small streams. It also undertakes research and studies on the development of other possible sources of cheap and dependable electric service power. On the other hand, the Manila and suburban populace is supplied electric power by the Manila Electric Company which has a hydro-electric station in barrio Botocan, Majayjay, Laguna. Aside from this hydro-electric station, it has thermal station to supply the power necessary for its operations. The National Power Corporation supplies the deficit power requirement of this private corporation.

For the conservation and optimum development of our water resources, the Bureau of Public Works conducts basin-wide engineering, hydrologic, geologic, economic and land classification investigation and surveys. It also carries out nation-wide scientific investigation and appraisal of surface and ground water resources, including the processing and publication of basic hydrologic data on various river basins. Reforestation for watershed protection has been an on-going program undertaken by the Reforestation Administration and the Bureau of Forestry to ensure steady water supply for the people. Were it not for the role played by these resources in practically all aspects of the people's lives, whether it be domestic, commercial, industrial, agricultural or power need, it would not have received the widespread attention focused on it today.

## LAND, FOREST, AND WILDLIFE

The improvement and construction of ports, facilities, lighthouses, shore protection works, pre-fabricated school buildings, flood control and drainage works, national buildings, hydrology, and water resources are attributed to the Bureau of Public Works. In essence, therefore, the Bureau accounts for almost all improvement made on Philippine lands.

The continued development of the country's ports and harbors to meet the increasing demands of domestic and foreign shipping is one of the Bureau's principal activities. During the fiscal year 1970-71, it completed the construction of 37 national ports, 88 municipal ports, and 18 light-houses and other aids to navigation projects. The Bureau's Harbor Dredging and Reclamation Fleet provided significant support to the maintenance and development of these ports and harbors. It takes charge of the dredging of harbors and navigation lanes, the clearing and deepening of new routes and fairways, and the reclamation and filling works to provide available areas for port expansion, tourism and recreation.

Certain segments of the country's 18,000-kilometer shoreline was provided protection by the Bureau through the construction of 130 shore protection projects during the same period. It also undertook the construction, repair and maintenance work on 5 major river basins (Manila and Suburbs, Pampanga River Basin, Agno River Basin, Bicol River Basin and Tarlac River Basin) to provide the necessary protection to private and public properties as well as human lives against recurrent floods throughout the country. In connection with the Bu-



reau's flood control and drainage activities, it carries out several improvements including the construction of cut-off channels and diversion channels; the deepening, widening and improvement of silted rivers and streams; and the raising of low-lying water-logged areas. Aside from flood control and drainage, river dredging operations are designed for inland navigation and water pollution abatement.

These are but some of the improvements designed to direct the forces of nature to satisfy the needs of the populace. Meanwhile, on the green-covered and tree-laden areas far from the busy cities are the orchards, plantations, fields and the forests, with fundamental make up of an agricultural economy. Agricultural researches have remarkably improved the breed of our products and tremendously increased our production. Irrigation, fertilizers, new plant varieties and better methods of cultivation through modern agricultural implements have directly improved the quality and quantity of the farmer's yield.

But if we are to continually extract wealth from our soil we have to take preventive as well as remedial measures to check the soil problem experienced and the impending ones. The duty of safeguarding the soil resources of the country is vested on the Bureau of Soils. The advances it has made in the fields of soil sampling and testing, soil research, soil fertility management, soil survey, soil and water conservation, and land classification have brought about remarkable effects in the agricultural fields.

The Bureau's researches on the aspect of the soil relative to water supply is of valuable assistance in the construction of irrigation systems. Areas which are not reached by any government irrigation system are given preference by the Bureau in extending help to farmers in the area regarding their soil management problems. This aid includes the technical aspect whereby the Bureau's fieldmen supervise the construction of earth dams for impounding water for irrigation purposes.

The erosion problem which has continually beset and tremendously worried the farmers and the general public has been given proper action by the Bureau through the reconnaissance soil erosion survey which it undertakes simultaneously with soil classification. Crop rotation has been widely used by the farmers to minimize erosion as well as to equitably distribute the needed soil nutrients among specific products. The reforestation projects of the Bureau of Forestry and the Reforestation Administration has been found to be of valuable help in preventing soil erosion.

Soil surveys on watershed areas have been conducted by the Bureau with the cooperation of the National Power Corporation and the Bureau of Forestry. The watershed areas include the watersheds of Agno, Pampanga, Magat and Chico Rivers. These studies are essential prior to the construction of a series of dams designed to impound water for irrigation and power and to conserve soil and prevent floods.

Researches on soil and water conservation, soil fertility, soil spectrographic analysis, soil physics, soil chemistry, soil biology and mineral nutrition have brought great benefits to farmers.

Pest and disease controls especially in areas most likely to be infested are implemented by the Bureau of Plant Industry. This agency also produces maximum quantity of registered and foundation seeds of rice and corn to fill the demand of farm operators in the country. It also conducts studies on the genetic constituent of major varieties of rice, corn, coconut, tobacco and other economic crops.

Forestry which is a vital economic activity has been given due attention by the government with the creation of the Bureau of Forestry and the Reforestation Administration. The Bureau of Forestry enforces extensively selective logging as a tool of scientific forest management. This agency is aimed at intensifying forest protection work and enforcing strictly all forest laws, rules and regulations. Researches and studies which are indispensable in carrying our forest resources development and conservation are also indulged in not only

by these two agencies, but also by private logging outfits and timber concessions. The suitability of certain species like the Albizza falcata and Benguet pines, proper planting procedures in order to effect the best yield as well as studies on the effects of the application of fertilizers are but some of the researches completed and still considered for further experimentation by the forest researchers. Bare and denuded areas and watershed areas have been the center of these reforestation programs.

With the end in view of conserving our wildlife species leaving them unimpaired for the enjoyment of future generation, the Parks and Wildlife Office have adopted conservation programs and hunting bans. The Tamaraw Conservation Program assists the Parks and Wildlife Office in saving the tamaraw specie. The Tamaraw-inhabited areas of Mt. Iglit, Mt. Calavite and Sablayan have been isolated to protect these animals from hunters and eventually make them free to come out of their hiding places and look for food. This has been resorted to because activities of the hunters forced the animals to seek refuge in deep forests far from their food supply which are found in the open areas. This led to their starvation, and consequently their death.

The Monkey-Eating Eagle Conservation drive is also one of the conservation programs of the Parks and Wildlife Office. For this purpose, the office sent conservation teams to Mindanao, particularly to the province of Bukidnon, Cotabato and Davao. Studies were made by one of these teams on the birds' nesting and habitats and its distribution in the provinces of Davao and Cotabato. Pilas Islands was also reportedly the birds' habitat and nesting site. The feasibility of establishing these islands as sanctuary for this rare wildlife specie is being considered.

Wildlife conservation patrol trips are also being sent to several towns in different provinces like Bataan, Quezon, Laguna, Rizal, Bulacan, and Pangasinan. These groups also undertake information campaigns in the field level aside from their law enforcement activities. Hunting bans for the purpose of allowing more time for our wildlife resources to restock and multiply have been imposed. Only migratory game birds are allowed to be hunted, with the ban limits and open seasons provided by the office.

Scientific researches which provide factual information basic to the conservation of the wildlife resources of the country is also undertaken by the Parks & Wildlife Office through its Biological Research Division. Studies on Tamaraw, with the results intended to provide the data necessary for projection forage requirement of a given tamaraw population is still being continued. Initiated also were studies on the Palawan deer found in the Northern part of Palawan as well as the biology, life history, habits, behavior and life-span of certain mammal and bird species.

In order to win public support the office continued to intensify its information and education campaign by maintaining regular columns in newspapers, weekly radio programs and occasional radio interviews and television appearances. Through the office's Conservation Information Division queries regarding conservation of reserves are given up-to-date responses and data requested are adequately supplied to the public.

National and international societies and prominent private citizens have given their pledges to financially assist the conservation program of this office. Included among these societies are the Fauna Preservation Society of England, the National Research Council of the Philippines, the World Wildlife Fund, the National Science Development Board, the International Union for the Conservation of Native and Natural Resources, and members of the Philippine Wildlife Foundation.

## CHAPTER XI — AGRICULTURE

Despite modest gains achieved in the manufacturing sector, the Philippines is still a predominantly agricultural country inasmuch as a large percentage of the total population depends on agriculture for their livelihood. Accordingly, out of 36.7 million people,<sup>1/</sup> 25.0 million or 68.2 percent comprise the rural population.

The agricultural sector makes a large contribution to our national income in terms of raw materials produced and export earnings. In 1970, agriculture supplied 58 percent of the total labor force, accounted for approximately 36 percent of the national income, supplied 76 percent of the food consumed and raw materials needed by the manufacturing and processing industries, and contributed 62 percent of the total export earnings.

The decline in production of certain agricultural crops in 1970 was mainly due to typhoons. Agriculture, fishery and forestry altogether progressed at a slower pace of 3.8 percent compared with the 1969 record of 6.8 percent. Aggregate agricultural production grew by only 4.9 percent, against the 1969 growth rate of 5.5 percent. Fortunately, some slacks in other sectors were offset by healthy increases in fish output, 9.9 percent, and livestock and poultry, 6.7 percent.

As shown in Figure XI.1a, the cultivated area per capita in the Philippines in 1969 was very negligible compared to that of her neighboring countries.

With reference to Figure XI.1b, the country has besides its vast agricultural land an extensive forest comprising approximately 16.7 million hectares or 55.54 percent of the total land area, out of which 9.4 million hectares or 31.4 percent is for commercial purposes.

From a total area of 8.9 million hectares devoted to agricultural crops in 1970, 10.67 million tons of food crops and 4.53 million tons of commercial crops, respectively, were produced. This output represents an increase of 14.16 percent and 15.76 percent on food and commercial crops, respectively, over the previous years. Rice production has steadily increased during the last ten years and significantly in 1968, the country achieved self-sufficiency. The great strides made in rice production was evident in the increased average yield of 31.4 cavans per hectare (of 44 kilograms each) in 1968 compared to the average yield of 28.1 cavans per hectare several years back, the highest so far in the period from 1960 to 1969. The unprecedented yield was due to the use of high-producing varieties like IR-8 and BPI-76 and of better farming methods and equipment used. But the feat of 1968 was never duplicated because in 1969, the yield per hectare was reduced to only 30.3 cavans per hectare. The decrease in production was caused by typhoons and pest and disease infestations. In corn, self-sufficiency was attained in 1969 with 13.5 million sacks of 57 kilograms each.

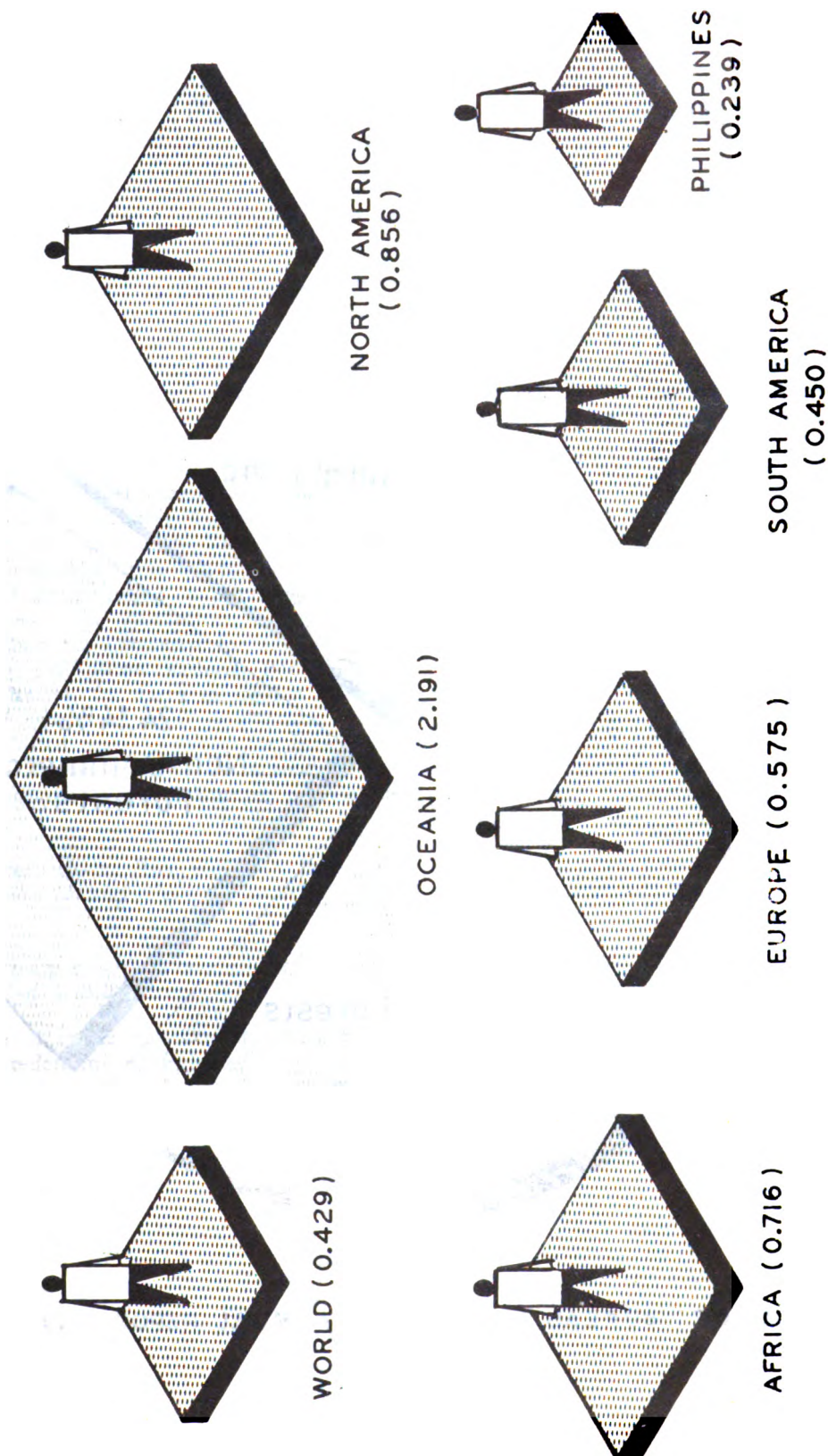
In 1970, palay and corn yields amounted to 38.2 million sacks and 14.6 million sacks, respectively. This accounts for the biggest quantity and value of both palay and corn yields since 1960. Other food crops which had the most yield in 1970 were Irish potato, with 6,746.4 kilograms per hectare; root crops, 5,215.8 kilograms per hectare; and vegetables (except onions and potato), 4,988.6 kilograms per hectare. The increased yield per hectare can be attributed to the shift of the crop area cultivated from low-yielding crops to crops like corn and vegetables which are high-yielding.

Although there was a general increase of 9.8 percent in the country's production of commercial crops, among the four major commercial crops only sugar and tobacco registered increases of 9.7 percent and 8.9 percent, respectively. Copra and abaca production slightly decreased because of the effects of diseases, typhoons, and droughts. In addition, abaca faces stiff competition from synthetic fibers in the world market.

In a period of ten years the value of animal production increased by over 100 per cent, from P850 million in 1958 to P2.4 billion in 1970. Among the livestock population, hog was predominant with 6,455,600 heads valued at P485 million as of January 1, 1970. On the other hand, chicken was predominant among the poultry population, with 56,998,800 heads valued at P149 million. However, aggregate animal production has not kept pace with the increasing needs of the country's rapidly increasing population.

<sup>1/</sup> Total population based on the 1970 Population and Housing Census is 36,684,486.

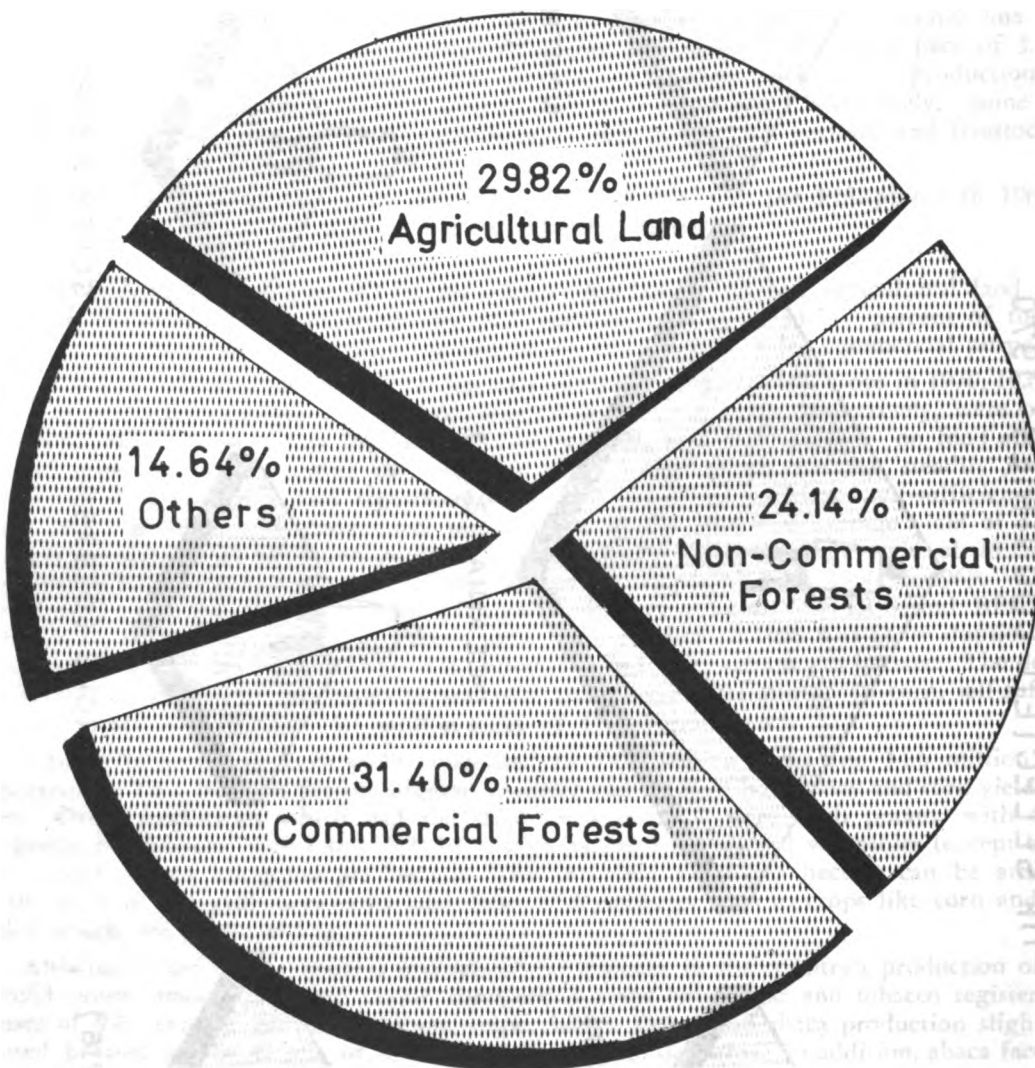
FIGURE XI.1A  
COMPARATIVE CULTIVATED LAND AREA PER CAPITA  
OF SELECTED COUNTRIES: 1970



SOURCE: STATISTICAL YEARBOOK, JAPAN: 1970

FIGURE XI.1B

## LAND USE IN THE PHILIPPINES: 1969-1970



SOURCE: BUREAU OF FORESTRY ANNUAL REPORT: 1970

## FOOD PRODUCTION PROGRAM

For the past 50 years, the Philippines has experienced yearly an acute shortage of rice, the staple food of the Filipinos. The Philippines depends to a certain extent upon imports of this food and other primary food items. The reasons for this situation are the multifarious problems of agriculture in the Philippines such as low productivity of rice farms, lack of incentives for the farmers to adopt scientific farm practices, difficulties in obtaining credit for seeds, fertilizers and pesticides, inadequate transportation facilities, shortage of storage, processing and marketing facilities, and many others.

To effect solutions to these problems, an integrated rice and corn program was set up designed to revitalize all agencies concerned with rice and corn production. The Rice and Corn Production Coordinating Council is "reorganized into a coordinated and unified organization to plan and execute a revitalized rice production drive." It has the sole authority to manage the rice and corn production program. Agencies with related functions compose the council. The consolidation and integration of the efforts of these agencies have been affected towards increased production.

Organizational and management reforms have been instituted. The representatives of the Agricultural Productivity Commission, Bureau of Plant Industry, Bureau of Soils, Agricultural Credit Administration, Rice and Corn Administration, and the University of the Philippines College of Agriculture, which by law rate the council members, are augmented by representatives of the so-called "supporting agencies," which by the nature of their functions could contribute to the rice effort. Thus the National Irrigation Administration and Irrigation Service Unit are harnessed for the irrigation phase; the Department of Rural Banks (Central Bank), Philippine National Bank, Development Bank of the Philippines, and Bureau of Public Highways, for farm to market roads; the Food and Nutrition Research Center, for the nutritional aspects of food production; and the Budget Commission, National Economic Council and United States Agency for International Development, for general logistics to the program. The Bureau of Lands is responsible for land titling, which is vitally important in credit financing; the Weather Bureau, for field demonstration and dissemination of information.

The International Rice Research Institute and the Council have joined efforts towards the dissemination of high-yielding varieties, applied research on individual farms, and field demonstrations.

The private sector is taken in as an official component of the council, which in effect is a sort of public forum for dissecting and resolving agricultural problems.

Because of scarce resources available for the production drive, the program action is limited to pre-determined irrigated area possessing the best potential for increased productivity. The area first covered eleven provinces, but it has been increased to fifteen. The program organized in each province is headed by a Provincial Director, selected on the basis of performance and leadership. The council at the national level has a direct line of command over Provincial Directors, through the Executive Director and the head of the council's Technical Staff or Secretariat.

In 1970 the National Food and Agricultural Council (NFAC) took over the functions and activities of the RCPCC, with emphasis on accelerating production of rice and corn conducting public and private efforts in food production. Its principal activities cover not only the country's staple food crops, but all food crops derived from farming. This council has become the "clearing house" of any current agricultural problem.



## RESEARCHES ON FOOD PRODUCTION

### Advanced Training and Research in Corn Sorghum and other Upland Crop Production

The program on upland crop production consists of two phases — gradual training and research development. Although there are several upland crops, the work is concentrated on five important crops; namely, corn, soybeans, sorghum, peanut, and mongo.

There are three regional research stations established in cooperation with the Bureau of Plant Industry and Central Mindanao University; namely, the Bureau of Plant Industry Ilagan Experimental Station (Ilagan, Isabela), La Granja Experimental Station (La Granja, Negros Occidental) and Central Mindanao University Experimental Station (Musuan, Bukidnon).

Most research projects conducted during the year 1970 were on variety improvements, cultural management practices, plant protection, and multiple cropping.

Rice weevil and corn borer are two major pests of corn in the Philippines. Experiments on resistance to these pests were started during the year and varieties are now being screened for corn-borer resistance. Leaf rust is becoming a problem in Luzon and Visayas corn growing area. Guatemala 330 and Puerto Rico GPO 6 were rated resistant corn varieties. Glutinous and sweet corn are two of the most popular green corn. Four sweet-corn synthetics were found better than Philippine Hybrid 801 in trials conducted at Ilagan and La Granja nurseries. The best synthetic, (PHS 4—x PYS 7 x HW 13 x Golden Cross Bantam) No. 4, now known as UPCA<sup>2/</sup> Var Sweet 1, was recommended and approved by the Seed Board for commercial production. Yield of the top five popcorn varieties and synthetics entries ranged from 18 to 25 tons per hectare.

Corn in the Philippines is grown also in saline soils. Germination is greatly affected at higher salinity levels and rate of respiration decreases as the level of salinity increases.

In an intercropping study the yield of sweet corn (Phil. Hybrid 810) was significantly lower when intercropped with legumes (peanuts, mongo and sorghum) than when planted alone. Ninety six promising varieties of sorghum from the World Collection were screened for reaction to major sorghum diseases. Results showed that 32 varieties were resistant to rhizoctonia sheath spot, 26 to leaf rust, 32 to anthracnose and 7 to stalk rot.

One outstanding white-grained sorghum variety which was renamed Cosor 2 was recommended and approved this year by the Seed Board for commercial production. This variety matures in 80-100 days, has a height of 120-170 centimeters, and yields from 3 to 5 tons per hectares. Studies of sorghum at several locations indicate that a stand of 150,000 to 200,000 plants per hectare is optimum. Most fertilizer response can be traced to nitrogen alone.

One advantage of sorghum over corn is its ratooning capacity. Darso variety of grain sorghum showed that the first ratooned crop matures on an average 10 days earlier than the seed crop and yields on the average more grain than the seed crop. Ratooning or harvesting on the grain of Darso suggests that the seed crop could be extended 10 days beyond the time when the crop is ready for harvest without seriously affecting the grain yield of the ratooned crop. Highest yields for Darso and Feteria varieties were obtained in the February and March planting. Feteria was found more sensitive to photoperiod. Sorghum planted in November yielded almost 100 per cent more than when planted in October. Studies on chemical insect control showed that Lannate and Malathrom gave good control against most worms that infest the leaves and heads of sorghum.

2/ University of the Philippines College of Agriculture.

Sorghum is known in the Philippines as a substitute for corn in animal feeds. Studies were started on uses of sorghum for human consumption. Sorghum champorado served with milk and sugar is acceptable. Recipes (bread, cakes and cookies) using sorghum flour are found very acceptable, although the seed coat is found to give undesirable taste. The general problem of cooking sorghum is in separating the seed coat from the endosperm.

Breeding program of soybeans is geared towards development of early maturing varieties that have high yield potential. Twenty-two varieties mostly introduced from high-altitude countries which mature less than 100 days and have a yield potential of 18 to 20 tons per hectare have already been identified. These varieties show higher harvest index (grain to straw ratio) than tropical types and therefore do not vegetate excessively during the wet season. Crosses were made between selected tropical strain and some early lines. Sixteen tropical strains of soybeans developed at UPCA and BPI were tested in the Economic Garden, Ilagan, La Granja, and Musuan. This is a continuing program, the results of which are used as basis for recommending new varieties. Results of fertilizer studies conducted show that a response in yield was obtained only with initial application of nitrogen at 30 kilos per hectare. Ambithion and Lannate showed significant protection against corn borer. Seed treatment with fungicides improved germination and vigor of seedling owing to the protection against water molds and seedling blight. Arasan SF, Vitavax, and Demisan treated seeds gave more than 90 per cent germination compared to control with 68.33 percent.

Weed control study in soybean shows that Decthal at 8-10 kilos per hectare of active ingredients was effective against *Rottboellia exaltata* and *Eleusine indica*. Lassa at 2-4 kilos of active ingredients and Ramsod at 56 kilos per hectare gave inadequate control against sedges. Combination of Decthal (8-10 kilos active ingredients per hectare) with either Lassa (2-3 kilos per hectare or Ramsod (3-5 kilos per hectare) was found effective.

In mongo, 9 new strains derived from the cross between CES 14 and Mg 50-10A have been selected out of 41 promising selections. Studies on cultural management practices were conducted to obtain maximum yield potentials of the upland crops. Increase in plant population from 200,000 to 400,000 plants per hectare, regardless of fertility level, was found in Musuan.

The best planting periods for Darso (sorghum), CES 486 (soybeans), and CES 14 (mongo) were found to be in May and June. For CES 101 (peanut) good yields were obtained from June to December plantings. The most serious problem observed in the study were pests and diseases.

Multiple cropping studies were done in 1969. Bush sitao, mongo, grain soybeans, and sweet potato can be grown after a crop of rice. However, greater success was attained when the soil was not puddled while preparing the field of rice. The two legume crops, bush sitao and mongo, were quite sensitive to poor aeration, a condition brought about by puddling. On the other hand, the yield of peanut (marketable seeds only) was not affected by intercropping either in wet or dry season. Yield of mongo was lower when intercropped with sweet corn during the dry season but not in the wet season.

In peanuts, Lannate and Gresothian were effective against leaf hoppers. VCS 506 and Lannate gave the best protection against leaf-eating insects in mongo. However, VCS 506 was observed to be phytotoxic to mongo.

A breakthrough in disease control in legumes was achieved when Benlate, a systematic fungicide, has been found to be highly effective against the powdery mildew and cercospora leaf spot diseases of mongo and the block disease of peanut.



## Research and Extension Program in Vegetable Crops

The Research and Extension Program in vegetable crops is a cooperative undertaking among private and government agencies, such as the Agricultural Productivity Commission, Bureau of Plant Industry, Central Mindanao University, the University of the Philippines College of Agriculture, and private vegetable seed dealers.

Extensive variety trials of several cooperating stations resulted in vegetable stop-gap recommendation of varieties which are either adapted for all-season growing or for a specific time of the year. Further evaluation of plant introduction and breeding for desirable vegetable varieties is being carried out.

Seeds stored in Cellophane-Aluminum-Polyethelyne complex remained viable with excellent vigor after 10 months.

Initial comparative study of the efficiency of fumigation with methyl bromide and head method of soil sterilization showed the advantages of using the former over the latter.

Bush Sitao 1 had a higher yield of both fresh pods and dry seeds than Bush Sitao 2. Closer planting significantly increased yield per unit area. No appreciable yield increase was obtained by the application of 50 kilos nitrogen per hectare, although total dry matter production was significantly increased.

Nitrogen application to garlic was profitable up to 150 kilos per hectare.

Transplants raised in Jiffy pots produced the highest yield in tomatoes. Cucumber transplant raised in seed flat-blocked and paper pots produced the highest yields during the dry and wet season, respectively.

Preliminary greenhouse experiments showed that the reduction in the yield of tomato 2029 owing to root-knot nematodes was significantly higher when the plants were attacked at transplanting than when plants were infected at flowering time. The calculated monetary loss was high.

Among 48 lines of tomatoes resistant to bacterial wilt, only line (1169 x 2029) 3-3-3 showed resistances to nematode infection.

Granular soil systematic insecticides protected the plants from cutworms and minor infestations for a period of 10 weeks. Lannate, Gardona, Leyaysid applications gave the highest yield of green pods. Plantvax 75 was found effective against severe infection of rust on bush sitao.

Four different tomato varieties screened for bacterial-wilt resistance exhibited different reactions to different bacterial wilt strains. Disease incidence and development were more rapid during the last two weeks following inoculation.

In grafting experiments for the control of bacterial wilt, high percentage of success in grafting was obtained in either tomato or eggplant scions, using tomato selections 2029 and Hawaii 2 and eggplant selections 64-43-36 as rootstocks.

In tomatoes, cross protection was capable of reducing subsequent severity of infection by *P. Alanacearum*, but not the number of infected plants.

For bush sitao, four weeks of weed-free period is needed. Yield reduction reached 25 percent when weeds were allowed to grow during the first five weeks of growth. In transplanted onions, applied as pre-emergence treatment were DCPA, trifluralin, and propachlor; for legumes, DCPA and Prometryne.

Vegetable varieties adapted under lowland conditions were evaluated as to their post-harvest qualities. Studies on delayed vegetable storage, chemical changes, after harvest, simulated transit, ripening heat evolution, control atmosphere, chilling and nutrition-quality interaction were conducted. Table XI.1 shows the production and distribution of seeds and plant materials, FY 1969-1970.

Table XI.1—PRODUCTION AND DISTRIBUTION OF SEEDS AND PLANT MATERIALS, FY 1969-70

I T E M	Unit of	Area	Product-	Quantity	Value
	Measure of : seeds and : Plant : Materials :	Planted : (Hectare) :	ion :	distrib- : uted :	(Pesos)
Station and Seed Farms	cavan	235.24	10,188.75	3,241.06	
	kilogram		17,546.14	742.02	77,798.63
	seed pc.		85,038.00	16,430.00	
Corn	cavan	49.63	1,125.75	322.20	5,402.20
Palay (lowland)	cavan	152.88	8,675.00	2,868.76	66,527.33
Palay (upland)	cavan	18.30	388.00	50.00	1,264.00
Sorghum	kilogram	4.74	6,002.00	99.00	135.50
Soybeans	kilogram	9.03	11,409.60	582.00	764.50
Coconut (seednuts)	piece		85,038.00	16,430.00	3,674.50
Others	kilogram	0.66	134.54	61.20	30.60
Central Office	cavan		1,131.00	847.00	42,854.85
(Received from Experiment Station)	kilogram		7,792.00	8,298.05	
Corn	cavan		293.00	161.00	9,650.00
Palay (lowland)	cavan		661.00	527.00	18,217.00
Palay (upland)	cavan		177.00	159.00	5,328.00
Sorghum	kilogram		5,342.00	4,078.50	5,648.50
Soybeans	kilogram		2,430.00	4,219.55	4,011.35
Farm Produce <sup>1/</sup>			267,250.00	84,406.00	31,383.65
Plant Materials					
Fruit tree seedlings	piece		162,747.00	34,368.00	9,887.70
Coffee seedling			22,891.00	8,950.00	733.10
Cacao seedlings			4,797.00	1,613.00	247.60
Coconut seedlings			43,554.00	28,935.00	1,162.00
Tea seedlings			500.00	592.00	29.60
Grafted			6,512.00	3,576.00	8,710.00
Marooted			1,267.00	862.00	6,633.50
Marched			1,267.00	468.00	1,406.00
Budded			3,946.00	819.00	1,393.15
Root cuttings			15,019.00	2,559.00	995.70
Others <sup>2/</sup>			15,546.00	1,664.00	165.30

<sup>1/</sup> Farm produce includes fresh vegetables, bush fruits, sugarcane, copra and other agricultural products sold to the public.

<sup>2/</sup> Include grape cutting, strawberry cutting and stem cutting of malunggay.

Sources: Bureau of Plant Industry, DANR Annual Report 1969-1970.

During the fiscal year 1969-70, 235.24 hectares were devoted to seed farms, of which 49.63 hectares or 21.08 percent were used for corn, 171.18 hectares or 72.76 percent for palay upland and lowland and 4.74 hectares or 2.14 percent for sorghum and 9.03 hectares for soybeans. Production was as follows: 10,188.75 cavans for palay and corn combined, 17,546.14 kilograms for sorghum and soybeans, and 85,038.00 pieces for coconuts, all valued at P77,798.63.

## THE NATIONAL GOVERNMENT IN RELATION TO AGRICULTURE

The Department of Agriculture and Natural Resources is the policy-making and programming body of the country in the field of agriculture and natural resources. Its primary function is focused towards the planning and development of sound agriculture and wise utilization of the nation's resources to effect a balanced agro-industrial economy.

There are fifteen agencies mentioned below that are performing specialized, well-integrated functions to implement the policies of the Department. For a systematic and effective control and supervision of the foregoing agencies, three groups exist, each representing a conglomeration of related activities.

The agricultural group is composed of the Bureau of Plant Industry, Bureau of Soils, Bureau of Animal Industry, Bureau of Agricultural Economics and the Abaca and Other Fibers Development Board.

The Bureau of Plant Industry maintains experimental stations all over the country to improve crop varieties and implement pest and disease control programs, especially in areas where infections are probable and rampant. It also plans and formulates programs for campaigns and provides the necessary technical assistance and supervision in such campaigns. It conducts researches relevant to improvement of crops and plant pest and disease control. It conducts studies on the genetic constituent of major varieties of rice, corn, coconut, tobacco and other important economic crops.

The Bureau of Soils is essentially a service and research government agency. It intensifies soil survey and classification, soil and water conservation practices, soil analysis, soil research, field fertilizers trials and special soil investigation. The Bureau makes available and utilizes the result of fertilizer experiments for the benefit of the farmers. It also gives emphasis on assisting production through sound soil management practices.

The Bureau of Animal Industry controls animal disease through immunization treatment, quarantine, inspection of meat and dairy products. It conducts extensive work campaign for livestock and poultry production.

The Bureau of Agricultural Economics centralizes and coordinates all statistical activities of the Department. It conducts economic investigations, researches and analysis to the problems, needs and conditions of agriculture with emphasis on efficiency, productivity and welfare of the farmers. It contributes in the dissemination of useful economic information among the people, especially among the farmers and assist in the formulation of plans and programs related to agriculture and natural resources.

The Abaca and Other Fibers Development Board takes charge of the development and organization of planters. It conducts demonstrations on land preparation, staking, selection of plant materials and preventive measures against illegitimate practices on such products.

The second group is the natural resources group. The agencies under this group are the Philippine Fisheries Commission, Bureau of Forestry, Bureau of Mines, Parks and Wildlife Office, and the Reforestation Administration.

The last is the Corporation Group consisting of the Abaca Corporation of the Philippines, Philippine Coconut Administration, Philippine Sugar Institute, and Philippine Tobacco Institute.

The Abaca Corporation of the Philippines establishes, equips, staffs, and trains personnel in new branch offices of different buying stations. It sets up melts for the production of twine, a basic material necessary in the manufacture of other abaca products. Programs are instituted in the buying of abaca direct from the farmer producers who are most concerned with the survival of abaca industry. These encourage more Filipinos to engage in abaca trade by providing them the necessary facilities.

The Philippine Coconut Administration oversees the planting of new areas under the scheme of established seedling banks and pursues the replanting of old plantations. It increases production in existing plantations through approved agronomic measures like cover-cropping, inter-cropping, fertilizer use, pest control, and general plant sanitation. It also expands the industrialization of coconut and its by-products and initiate improved measures and standards to ensure acceptable market grades of coconut products.

Field experiments and breeding of sugar cane are conducted by the Philippine Sugar Institute in order to produce superior high breeds and yields. It pursues applied researches that will yield information immediately needed in sugar cane husbandry and other related aspects of inquiry.

The Philippine Tobacco Administration was created under Republic Act 115, approved on June 16, 1954. It is charged with the task of rehabilitating and developing the Philippine tobacco industry. In May 1957, the agency turned its full attention to the rehabilitation of the native tobacco and later initiated a price support program, under which seventy-five percent of its annual outlay is allocated for trade operations. The agency pursues its tobacco trade operation by buying native leaf tobacco from farmers at market cost. It buys the native leaf tobacco crops of the farmers, cigar-filter as well as wrapper directly from them, at support prices determined and specified by the Board of Directors at the start of every buying season. It subsequently sells its purchases, through public bidding, to private tobacco manufacturing and exporting companies.

The PTA maintains a 15-hectare Central Tobacco Research Station in Ilagan, Isabela, and several lesser stations. It conducts researches not only on native tobacco but also on other tobacco types. It also undertakes the development of superior strains or varieties, improved cultural methods, and better ways of pest and disease control.

The PTA also maintains an Industrial Research Laboratory at its Central Office in Diliman, Quezon City. Studies and researches are conducted for better processing, fermentation and aging methods in order to produce a quality leaf; to develop improved blend of cigars, cigarettes, and pipe tobacco; and to find commercial uses for such tobacco by and waste products as stalks, midribs, dust and seeds.

The Philippine Virginia Tobacco Administration was formally organized on January 14, 1960. Its function is the administration of the Virginia tobacco industry through the implementation of the government price support programs. Its main objective is to encourage local production of quality cigarettes.

One effective measure to stamp out smuggling of "Blue Seal" cigarettes is to provide local consumers with locally-produced quality cigarettes that can be offered to the public at reasonably low prices. This will allow locally produced cigarettes to be in a favorably competitive position with imported ones. The administration aims to enhance these approaches.

The administration also aims to assist and protect the growers of Virginia leaf tobacco, which is raised mainly in the province of Abra, Ilocos Norte, Ilocos Sur and La Union. The province of Pangasinan, Tarlac, and parts of Nueva Ecija have also Virginia leaf producing areas, while the other Northern Luzon provinces, such as Cagayan, Zambales, Mountain Province, Kalinga-Apayao, Ifugao, and Benguet, produce native tobacco.

## FARM ASSISTANCE PROGRAM

For centuries the Filipino farmers, the acknowledged "backbone of the nation", have been mired in poverty and economic stagnation. Today, to help improve their standards of living and become potent and active participants in the economic development of the country, farm credit is made available to them by various government financing institutions; namely, the Agricultural Credit Administration, the Development Bank of the Philippines, and the Philippine National Bank. The credit extended by these financing entities is augmented by the rural banks supervised by the Department of Rural Banks, Central Bank of the Philippines and by the development banks under the supervision of the Development Bank of the Philippines (DBP).

Foremost among these credit institutions is the Agricultural Credit Administration (ACA) which is an arm of the government granting liberal credit assistance to the small farmers and tenants and to agricultural cooperative associations. Through the FACOMA,<sup>3/</sup> the mechanics of lending is simplified and the distribution of loans handled more efficiently as envisioned in Republic Act No. 811, as amended and reiterated in Republic Act No. 3844. Agricultural Credit Administration is presently granting four types of loans; namely, production, commodity, facility and marketing loans. The first two types of loans are given directly to and are intended to benefit the individual farmer borrowers, while the other two, to cooperative marketing associations.

The production loan extended by ACA is a short term loan not exceeding ₱2,000.00 per borrower and maturing within 60 days after harvest. It is designed to finance farm operation expenses, including the procurement of necessary supply items and the subsistence needs of the farmers and his family during the non-income period between the planting and harvesting of crops. Such loans may be in cash or in kind. This loan draws an interest of 8 percent per annum, with no collateral required of the farmer borrower other than the expected harvest from the crop financed.

Commodity loans, on the other hand, although extended to borrowers individually, are also calculated to strengthen the marketing program of the FACOMAS which are organized principally as the marketing outlets of their members' produce. This loan enables the farmer to hold onto his harvest during the low-price period prevailing immediately thereafter and to tide him over while waiting for a more favorable and profitable price. This is to provide the farmer the benefits of a reasonable return on his capital and labor but without encouraging him to speculate. These loans mature in 120 days, subject to renewal for another 120 days in justifiable cases. They are granted up to 80 percent of the current market price of the commodity deposited with the cooperative.

To enable the farmers to collectively own and operate their own processing, storage, transportation and other marketing facilities, ACA gives facility loans to FACOMAS to enable them to acquire or construct facilities needed to improve their marketing functions. These are either intermediate or long-term loans, depending on the type of facility involved, and draw an interest of 8 percent per annum.

Marketing loans mature in 180 days, earning an interest of 8 percent per annum and secured by the FACOMA and/or member's assets. This short-term loan is extended to selected FACOMAS which have established a required minimum volume and standard of marketing operations. This loan enables the borrowing FACOMA to purchase outright the stock of its members who may desire to sell their produce for cash rather than obtain a commodity loan from ACA.

The revolving capital loan is a kind that comes in the form of an augmentation fund to the FACOMA's working capital. It is designed to encourage capital formation from the patronage of its members. The loan is granted on the basis of a revolving capital plan, and is amortized in five equal yearly installments at 8 percent interest per annum, payable from deductions from proceeds of sales of member's produce and patronage refunds withheld from members to the extent of 50 percent of its fair market value.

Table XI.2. below shows the amount of loans released by the Agricultural Credit Administration, by type of loan, except the revolving capital loan, for fiscal year 1960-61 to 1969-70.

<sup>3/</sup> Farmers Cooperative Marketing Association

**Table XI.2. — Loan Releases: Agricultural Credit Administration,  
by Type: FY 1960-1961 to 1969-70.  
(Thousand Pesos)**

Fiscal Year	Total Loans	Produc- tion	T y p e o f L o a n			
			Farm Improve- ment <sup>1/</sup>	Commodity	Merchandiz- ing Marketing	Facility
1960-61	1,855	1,248	(2)	533	22	54
1961-62	7,101	787	—	6,139	94	81
1962-63	7,178	1,842	—	4,696	(1)	641
1963-64	5,190	2,905	—	2,115	—	170
1964-65	12,126	9,135	—	2,958	25	8
1965-66	13,946	9,113	—	4,465	345	23
1966-67	25,214	16,316	—	8,540	334	24
1967-68	31,980	23,902	—	6,988	1,018	72
1968-69	28,963	23,380	150	4,762	518	153
1969-70	45,583	30,923	142	6,561	7,616	341

1/ Loans of this kind were suspended starting fiscal year 1961-62.

2/ Prior year's adjustment.

3/ Revolving capital loan released in lieu of farm improvement loans.

Sources: Agricultural Credit Administration Annual Report 1969-70

The biggest amount of loan released during 1967-68 was the production loans in the amount of P23.9 million. During the succeeding year, loan releases amounted to P23.4 million or a decrease of 2.18 percent. In 1970, this went up to P30.9 million; or an increase of 32.26 percent. It may be noted that the loan released for production during fiscal year 1961-62 was very small, amounting to only P787 thousand, 37 percent less than that of the previous year (1960-61).

Commodity loan releases fluctuated during the years under review, largest amount of which was released in 1966-67, P8.5 million. For loans extended for merchandizing and marketing, that of 1967-68 in the amount of P1.02 million was the largest. It can be noted that loans released for facility are relatively smaller compared to those for production and commodity.

After the amount of P2 thousand was released for farm improvements in 1960-61, the Agricultural Credit Administration suspended the extension of this kind of loan in the following year. In lieu of this loan, revolving capital loans were released in 1968-69 amounting to P150 thousand this decreased to P142 thousand in 1969-70, or a reduction of 5.33 percent.

The total amount of cash loans released by ACA in FY 1969-70, as shown in table XI.3 was P45.6 million, direct beneficiaries of which numbered 62 thousand. This averaged P735 for each farmer. Of the total cash loans released, P27.7 million or 60.8 percent was for the first five provinces in Central Luzon; namely, Nueva Ecija, Pangasinan, Tarlac, Pampanga and Bulacan.

**Table XI.3—LOANS EXTENDED BY AGRICULTURAL CREDIT ADMINISTRATION:  
FY 1963-64 TO 1969-70**

(Thousand Pesos)

Fiscal Year	Number of Farmers Served	Loan Released	Collections <sup>1/</sup>
1963 - 1964	14	5,190	7,964
1964 - 1965	36	12,126	8,705
1965 - 1966	35	13,946	11,820
1966 - 1967	45	25,214	17,621
1967 - 1968	56	31,980	25,221
1968 - 1969	46	28,064	19,864
1969 - 1970	62	45,583	25,866

<sup>1/</sup> Includes corresponding interests on loans.

Source: Agricultural Credit Administration Annual Report 1970.

During FY 1963-64 a total of P5.2 million was released to 14 thousand farmers. This averaged P374 for each farmer. In FY 1964-65 only P336 was released for each of the 36,064 farmers, or a total of P12.1 million released. For 1966 a total of 13.9 million was released to 35 thousand farmers, or an average of P395 each; for 1967, P25.2 million was released to 45 thousand farmers, or an average P555 per farmer, while in 1968 an average of P570 was released to each of 56 thousand farmers, or a total loan amounting to P31.9 million. All those show an upward trend in the amounts of loans released.

Correspondingly loan collection by ACA fluctuated through the years, as shown in Table XI.4.

**Table XI.4. — Agricultural Credit Administration Loan Collection  
by Type of Loan: FY 1960-1961 to 1967-1968**  
(Thousand Pesos)

Fiscal Year	Total	Type Of Loan				
		Production	Farm Improvement	Commodity	Merchandizing Marketing	Facility
1960-61	3,083	1,305	452	684	370	271
1961-62	3,362	694	136	1,150	65	1,317
1962-63	8,762	1,473	137	6,878	23	297
1963-64	7,264	1,787	86	4,286	19	1,086
1964-65	8,061	4,709	75	2,688	49	540
1965-66	10,909	6,173	62	4,216	<sup>1/</sup> 92	365
1966-67	16,202	10,421	36	5,045	<sup>2/</sup> 268	432
1967-68	23,912	16,372	27	6,830	<sup>3/</sup> 416	267

1/ Includes collection of P55,000.00 for Marketing loan.

2/ Includes entire amount collected for marketing loans.

3/ Includes collection of P407,145.51 for marketing loan.

Source: Agricultural Credit Administration Annual Report 1968.

## Rural Banks

"Agriculture received another boost when the Rural Bank Act was passed by Congress on June 6, 1952. It was designed to promote and expand the rural economy in an orderly and effective manner by providing the people of rural communities with the means of facilities and improving their productive activities, and to encourage cooperatives".

To make the rural banking system more responsive to the credit requirements of the small farmers, a special farm financing program has been adopted, such as the *Central Bank — IBRD Farm Mechanization Credit Program*. To finance the rural banks medium and long term loans to small farmers for farm mechanization and irrigation purposes, the Central Bank of the Philippines has obtained two credit lines from the International Bank of Reconstruction and Development (IBRD), or the World Bank. The first line of \$5 million was obtained on October 8, 1965; the second, for \$12.5 million, on August 6, 1969. Another such program is the *Agricultural Guarantee and Loan Fund (AGLF)* created by the Monetary Board on August 31, 1966, for the purpose of encouraging the introduction of supervised credit in the agricultural lending of rural banks, and setting up of a Guarantee Fund to protect rural banks participating in the program from losses they may incur in granting loans under the said program.

The rural banks extend such credit facilities as agricultural loans to individual farmers or duly organized cooperatives, owing or cultivating as tenant, lessee, and others not more than fifty (50) hectares of land devoted to agricultural production. It also extends commercial loans to retail or wholesale merchants, whose capital investment does not exceed twenty-five thousand pesos (P25,000), and industrial loans to operators of a rural industry or enterprise whose capital does not exceed twenty-five thousand pesos (P25,000.00).

Other loans are also extended to operators of an essential rural industry or enterprise, irrespective of the amount of the capital involved. A rural industry or enterprise is essential if the goods it produces are those ordinarily purchased by the low-income groups and are useful or necessary in their daily economic activities.

Loans to end-user borrowers shall bear interest not exceeding twelve percent (12%) per annum on the principal amount outstanding from time to time, but such interest shall not be collected in advance.

Table XI.5 shows the classified loans granted by rural banks for 1968 to 1970 as to type of loans, by crop, purpose and term of loan.

In 1970 rural banks granted total loans of 437,541 for agricultural purposes, amounting to P558.8 million and servicing some 337,345 borrowers, with an average of P1,277 per head, compared to the previous year's average of P1,082 per borrower. Agricultural loans are divided into two (2) groups, namely short-term and long-term. Under the short-term loans palay, coconut, livestock and poultry are the three (3) agricultural groups which have the biggest number of loans. The medium and long-term loans are allocated mostly to purchases of farm machinery and implements.

## Development Bank of the Philippines

For twenty-five years the Development Bank of the Philippines (DBP), formerly known as the Rehabilitation Finance Corporation (RFC), has, through the years of its existence, given impetus to various agricultural, industrial and special loan financing programs to accelerate the well-rounded growth of the economy. This bank is the principal financial institution entrusted by law to provide long-term financial assistance to the private and, to a limited extent, government sectors engaged in development activities. It has been assigned to carry out objectives that will suit the growing credit demand of the times.



Table XI.5—TOTAL LOANS, PURPOSE GRANTED BY ALL RURAL BANKS, CY 1968-1970

(Value in thousand Pesos)

Purpose	CY 1970		CY 1969		CY 1968	
	Number	Value	Number	Value	Number	Value
GRAND TOTAL	<u>437,541</u>	<u>558,800</u>	<u>421,909</u>	<u>472,232</u>	<u>423,892</u>	<u>433,819</u>
AGRICULTURAL LOANS, Total	<u>400,706</u>	<u>496,618</u>	<u>385,721</u>	<u>416,841</u>	<u>384,934</u>	<u>378,246</u>
Short-Term, Sub-total	399,960	490,192	384,968	409,357	383,055	362,917
Ordinary	<u>392,327</u>	<u>483,520</u>	<u>376,510</u>	<u>404,050</u>	<u>363,035</u>	<u>352,801</u>
Palay	181,103	213,059	188,510	188,669	201,028	180,645
Sugar	22,618	34,139	19,344	25,058	12,246	14,164
Corn and other staples	10,729	9,843	8,531	7,784	3,704	2,906
Coconut	70,192	84,439	51,837	57,775	45,539	47,654
Coffee	6,070	8,512	5,370	6,686	1,492	1,833
Abaca and other fibers	1,511	978	1,574	900	1,587	1,035
Tobacco	8,894	7,940	9,877	7,599	7,632	5,776
Fruits and Vegetables	7,993	8,651	7,535	7,171	4,215	3,908
Other Crops	3,238	3,841	1,654	2,000	2,771	2,535
Livestock and Piggery	43,826	47,268	44,653	42,913	46,139	40,606
Poultry	16,090	24,472	16,592	21,648	15,931	20,873
Fishery	16,201	35,051	16,513	30,727	15,647	24,231
Forest Products	6	6	13	11	431	442
Others	3,856	5,321	4,179	5,109	4,673	6,193
AGLF	<u>7,633</u>	<u>6,672</u>	<u>8,458</u>	<u>5,307</u>	<u>20,020</u>	<u>10,116</u>
Production	6,924	5,893	8,243	5,050	19,569	9,344
Marketing/Community	70	195	56	130	347	610
Other financing	639	384	159	127	104	162
Medium and Long Term						
Sub-total	746	6,426	753	7,484	1,879	15,229
Ordinary	<u>236</u>	<u>1,516</u>	<u>185</u>	<u>1,704</u>	<u>231</u>	<u>1,856</u>
AGLF	<u>201</u>	<u>1,520</u>	<u>317</u>	<u>3,132</u>	<u>783</u>	<u>5,375</u>
Acquisition of Farm Machinery and implements	168	1,352	276	2,922	726	5,236
Development of small private Irrigation System	33	168	41	210	57	139
CB: IBRD	<u>283</u>	<u>3,263</u>	<u>235</u>	<u>2,586</u>	<u>832</u>	<u>7,724</u>
Acquisition of Farm Machinery and Implements	248	2,998	219	2,459	771	7,464
Development of Small Private Irrigation System	35	265	16	127	61	260
Other Financing	<u>26</u>	<u>127</u>	<u>16</u>	<u>62</u>	<u>23</u>	<u>274</u>
COMMERCIAL LOANS, Total	<u>23,103</u>	<u>43,176</u>	<u>23,936</u>	<u>39,642</u>	<u>26,599</u>	<u>40,800</u>
Short Term	23,082	43,046	23,902	39,570	26,579	40,800
Medium and Long term	21	130	34	72	-	-
INDUSTRIAL LOANS, Total	<u>7,693</u>	<u>15,722</u>	<u>7,794</u>	<u>13,786</u>	<u>7,950</u>	<u>12,883</u>
Short Term	7,655	15,607	7,782	13,722	7,950	12,883
Medium and Long Terms	38	115	12	64	-	-
OTHER LOANS	<u>6,099</u>	<u>3,284</u>	<u>4,458</u>	<u>1,963</u>	<u>4,429</u>	<u>1,989</u>

Source: Department of Rural Banks, Central Bank of the Philippines Annual Report 1968-1970.

In the past the government, through the Development Bank of the Philippines, has supplied the bulk of long and medium-term credit for capital investment or for financing improvement of farms and facilities for farm cultivation and in establishing factories.

In support of the administration's drive for increased food production 1967-68, the Bank at the beginning of the fiscal year redirected its efforts and initiated an intensive promotional program through release of brochures or financing plans for rice and corn, piggery, beef cattle, fishponds, vegetable and coconut. The Bank also provided credit guidance and technical assistance to prospective borrowers in the preparation of their farm plans, evaluation of project studies, and effective utilization of credit and assisted them in the solution of their farm problems. Additional technical personnel were hired after two pre-in-service training programs had been sponsored by the Bank for agricultural appraisers among graduates from colleges of agriculture, veterinary medicine and fisheries and dispersed among the different branches of the Bank. Special teams or units were created to process applications for priority; e.g., rice and corn, piggery, poultry, livestock, fishponds and coconut.

The fiscal year 1967-1968 reflected the response of the borrowing public to the agricultural lending programs of the Bank. In the priority programs acceptability was indicated in the increases of loans granted, not so much in number, but in amount. During FY 1967-68 loans granted totalled 18,106, representing an increase of 58 percent in number and 76 percent in amount over those in 1966-1967 fiscal year.

The different agricultural loans granted are classified into food crops, commercial crops, poultry and livestock including dairy, and salt fishponds. The two main types of loans available to farmers are straight agricultural loans and special financing loans.

Straight agricultural loan is an ordinary loan which has no fixed amount but dependent on the maximum loan value of 60 percent of the appraised value of the offered security or actual need of the farm. Any applicant who is a citizen of the Philippines or a corporation or partnership duly registered under the Philippine laws, with Filipinos owning at least 60 percent of its capital and who has an agricultural land to be developed or improved may be granted this kind of loan. The appraisal of the offered collateral is based on the kind of land, the productivity of the standing crops, and accessibility of transportation. A land without any standing crop or improvement is appraised accordingly and the allowable loan is based on not more than 60 percent of the appraised value. In case of untitled properties (privately-owned) the maximum loan that may be granted is 40 percent of its appraised value.

All agricultural crops are qualified for straight agricultural loan; the same holds true for dairy, poultry, piggery cattle or rabbit breeding, fishponds and saltbeds. The loan is payable in equal semi-annual or annual amortization within a period of ten (10) years. On all individual loans up to ₱100,000.00, whether new or additional, the interest is 9 percent per annum, and on all individual loans above ₱100,000.00, whether new or additional, the interest rate is 10 percent per annum.

Loans for poultry and piggery, however, are payable within a period not exceeding five (5) years in semi-annual amortization.

Special financing loans are given to help finance special projects like the Abaca Financing Project, Banana Financing Project, Cacao Financing Project, Coffee Financing Project, Citrus Financing Project, Dairy Financing Project, Fishpond Financing Project, Livestock Financing Project, Palay Crop Loan and Rubber Financing Project.

Other loans which are also agricultural in nature but are accepted and processed by the Small Loan Division, Real Estate Department are the Homestead Loan, loans for agricultural graduates and auxiliary loans.

The Homestead Loan, under Republic Act No. 1085, is a kind of loan granted the applicant for the improvement of his homestead without collateral in an amount not exceeding ₱1,000.00. This loan is allotted exclusively for capital expenditures like investments in farm houses, barn for animals; work animals and farm implements. The loan shall not exceed 40 percent of the appraised value of the land but in no case should it be more than ₱1,000.00. Interest is at the rate of 4 percent per annum. The term of loan is ten (10) years payable in 10 equal yearly amortizations.

The Development Bank of the Philippines extends loans to agricultural graduates of not over P3,000.00. This is given to new graduates of Trade, Agricultural and Technical Schools and Colleges, with a view of helping them start an industry, by the virtue of Republic Act No. 1280 at the rate of 4 percent annually payable in 5 years.

Auxiliary loans not exceeding P2,000.00 granted to small farmers as provided by DBP Circular No. 37, series of 1959 and to small foreshore and river fishermen under DBP Circular No. 54, series of 1959. Table XI.6 below shows the agricultural loans released by the DBP, by products and area for FY 1965-66 to 1969-1970.

Table XI.6—AGRICULTURAL LOANS APPROVED BY THE DBP BY PRODUCTS AND AREA,  
1965-66 TO FY 1969-70

Year and product	Number	Amount of loan (Thousand Piso)	Area (hectares)
1965-66 - TOTAL	7,679	42,060	50,570
Food Crops	3,567	17,357	26,622
Commercial Crops	2,997	16,174	21,481
Poultry, Piggery and Livestock including dairy	887	5,389	
Salt and Fishpond	222	3,022	2,358
Miscellaneous	6	119	110
1966-67 - TOTAL	11,485	76,999	83,862
Food Crops	5,906	25,962	46,832
Commercial Crops	4,153	34,342	33,466
Poultry, Piggery and Livestock including dairy	1,137	10,522	
Salt and Fishpond	289	6,133	3,564
1967-68 - TOTAL	18,106	135,427	130,066
Food Crops	9,936	43,352	67,455
Commercial Crops	6,198	49,478	58,303
Poultry, Piggery and Livestock including dairy	1,610	35,977	
Salt and Fishpond	362	6,620	4,308
1968-69 - TOTAL	13,021	97,702	82,619
Food Crops	5,853	26,405	35,447
Commercial Crops	5,644	44,589	43,824
Poultry, Piggery and Livestock	1,288	21,421	
Salt and Fishpond	236	5,287	3,348
1969-70 - TOTAL	8,954	66,208	52,026
Food Crops	4,105	19,892	23,983
Commercial	3,645	27,382	27,822
Poultry, Piggery and Livestock including dairy	1,071	18,934	221
Salt and Fishpond	133	4,318	2,133

Source: DBP Annual Report 1965-1970.

The preceding table shows that total number of agricultural loans approved by the DBP for food crops, commercial crops, poultry, piggery and livestock including dairy products during the fiscal year 1965-66, amounting to P42,060 thousand distributed among 7,679 loan borrowers and covering an area of 50,570 hectares. For fiscal year 1967-68 the number of loan increased to 18,106 which represents an increase of 10,427, or 135.78 percent as compared with that in the 1966 report. Of the 18,106 loans 9,936, or 54.88 percent, were allotted to food crops, 6,198, or 34.22 percent, to commercial crops, and 1,610, or 8.89 percent, to poultry, piggery and livestock. It may be noted also that the loans approved for commercial crops (numbering 6,198 for an area of 58,303 hectares) received a bigger share of the total amount of agricultural loans, compared with that for food crops which got only 32.01 percent of the total. This could be attributed to the government concern for commercial crops solely for export such as sugar, abaca, and coconut. In FY 1969-70, the number of loans approved by the DBP declined to 8,954 or 31.23 percent less than that of the previous year. This could be due to tight credit owing from the floating rate and the resulting inflation.

## Philippine National Bank

The Philippine National Bank since its creation on February 4, 1916, has promoted several economic activities in the agricultural sector such as the development of fishponds, deep-sea fishing, and agricultural crops other than palay, sugar and coconut. In 1970 producers of other agricultural crops such as corn, livestock and poultry, abaca, tobacco, and others received loans totalling P42.1 million. Financing of these commodities aggregated P55.5 million, or a decrease of P27.3 million from the 1967 level.

Figure XI.2 shows the trend in agricultural loans of the Philippine National Bank from 1962 to 1970 while Figure XI.3 its loan outstanding to selected agricultural industries from 1962 to 1970.

To support the country's intensive efforts in meeting the sugar quota in the U.S. market, the Bank in 1970 increased its contribution for the development of the sugar industry by releasing loans totalling P447.5 million, which is P83.3 million more than that of the previous year. Of the total loans granted, P323.5 million represented production credits, P111.3 million commercial credits for the marketing of sugar, and the balance of P12.6 million for industrial processors.

The palay industry received P130.4 million in production and commodity loans, or an increase of P13.5 million compared with that of the previous year. The latter type of loan enabled the palay farmers to take advantage of better market prices, thus assisting also in the price stabilization of the cereal.

In 1970 the coconut industry was granted total loans of P44.2 million, indicating a drop of P13.5 million from the 1969 figure. Loan collections on coconut accounts dropped to P35.3 million from P37.1 million in 1967. However, the Bank's loan portfolio in this vital export product amounted to P101.7 million in 1968.

Figure XI.3 shows the comparative value of Philippine National Bank outstanding loans for sugar, palay and coconut from 1962 to 1970. The sugar industry absorbed the largest amount of loans during the period, followed by palay and coconut.

## PROVINCIAL GOVERNMENT IN RELATION TO AGRICULTURE

### Agriculture Services

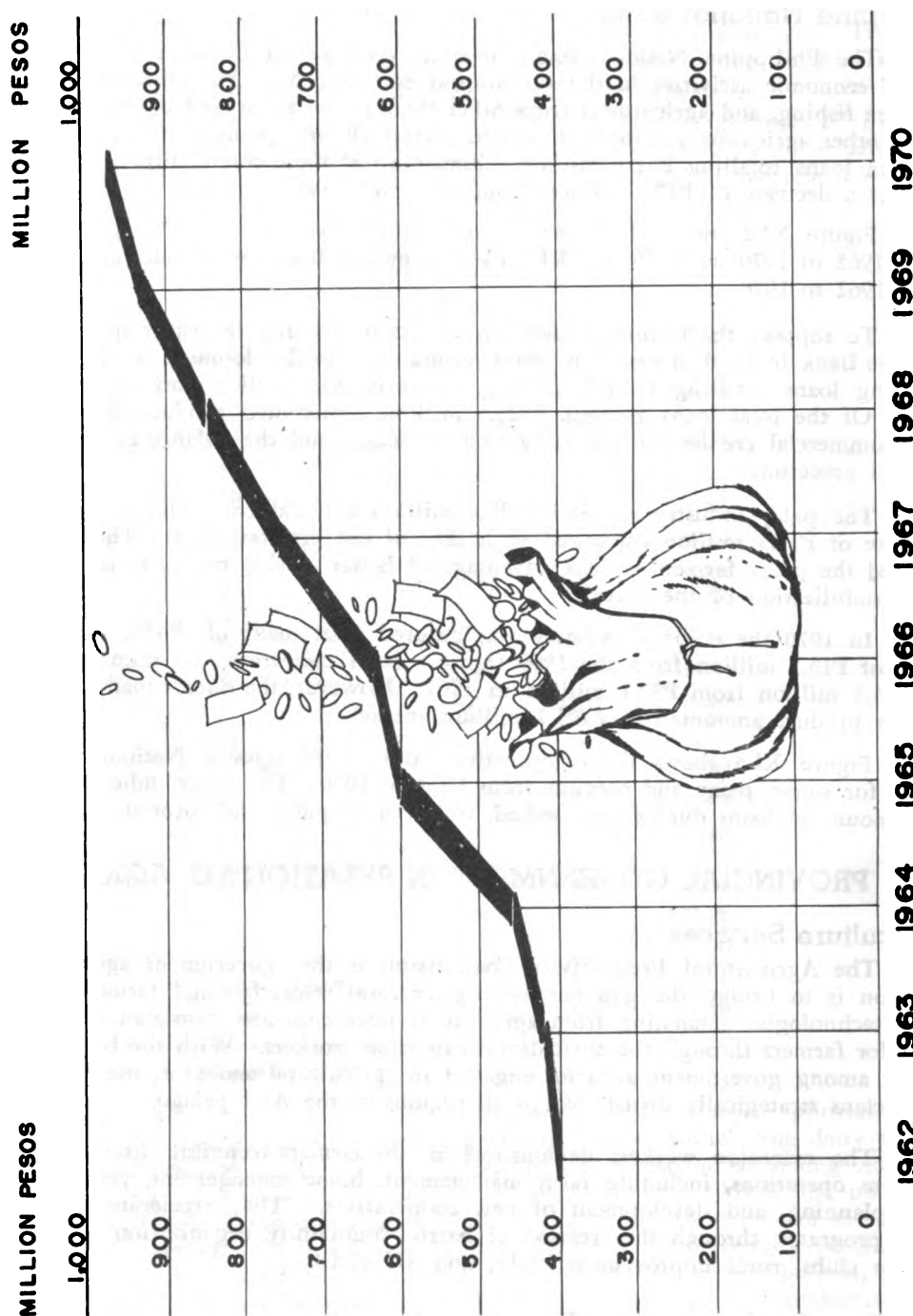
The Agricultural Productivity Commission is the government agency whose primary function is to bridge the gap between agricultural researches and farmers. Discoveries and latest technologies emanating from agricultural researches are translated into actual applications for farmers through the agricultural extension workers. With the biggest technical manpower among government agencies engaged in agricultural endeavor, the extension service has technicians strategically distributed in all regions of the Archipelago.

The extension workers demonstrate to the farmers technical "know how" in all phases of farm operations, including farm management, home management, youth development, family planning, and development of new cooperatives. They accelerate community development programs, through the creation of barrio community organization such as farmers' extension clubs, rural improvement clubs, and 4H clubs.

### The Rice Production and Extension Projects

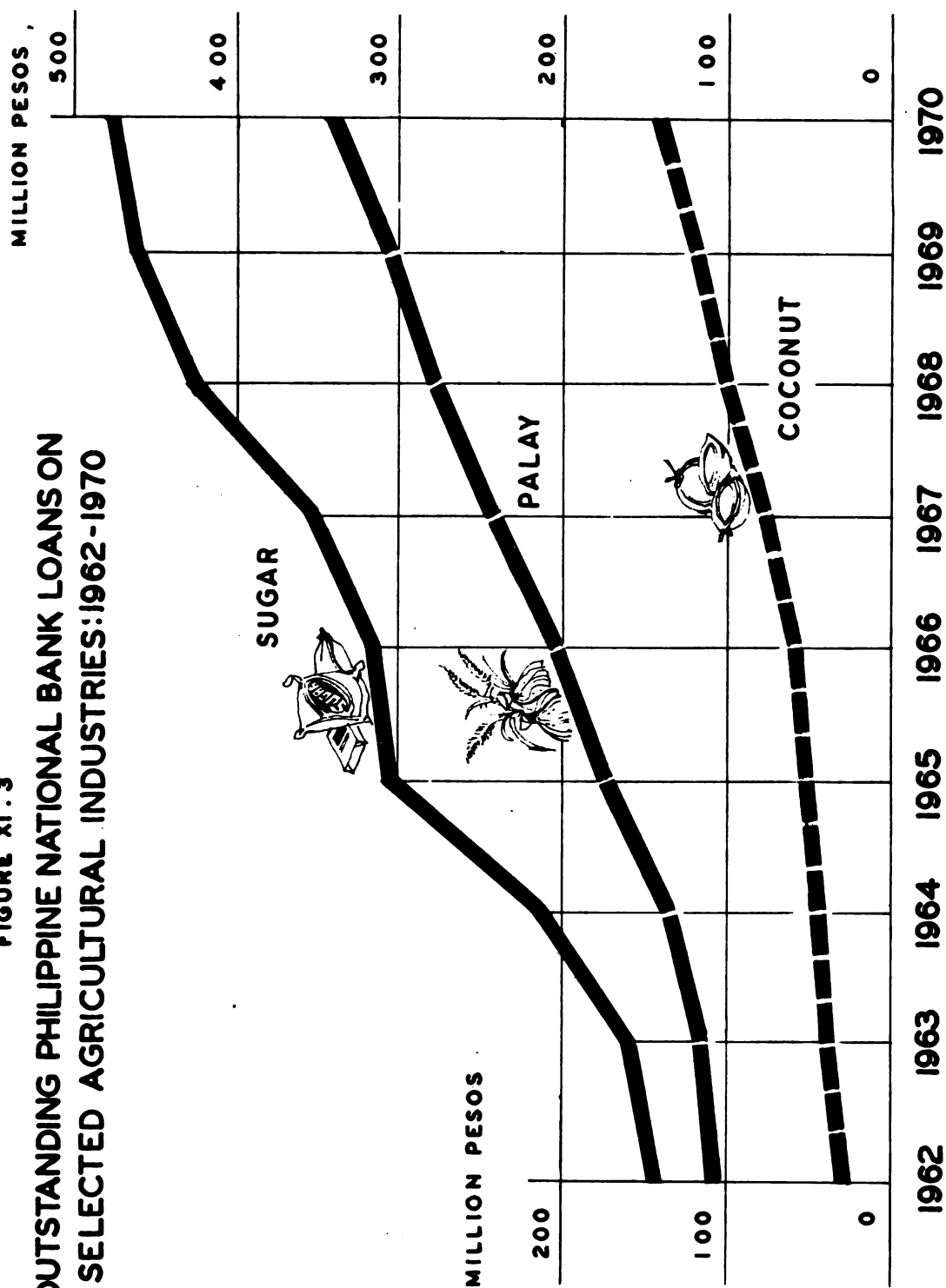
The Agricultural Productivity Commission, with financial and material assistance from the National Food and Agriculture Council, undertakes the direct management and supervision of the Rice Production and Extension Projects distributed in selected pilot areas in certain provinces. Regular rice production projects, which start from July to December, are conducted in San Mateo, Isabela; Sta. Teresita, Cagayan; San Manuel, Pangasinan; San Jose, Ca-

**FIGURE XI.2**  
**OUTSTANDING PHILIPPINE NATIONAL BANK**  
**AGRICULTURAL LOANS: 1962-1970**



**SOURCE: PHILIPPINE NATIONAL BANK ANNUAL REPORT, 1962-1970**

**FIGURE XI. 3**  
**OUTSTANDING PHILIPPINE NATIONAL BANK LOANS ON**  
**SELECTED AGRICULTURAL INDUSTRIES: 1962-1970**



SOURCE: PHILIPPINE NATIONAL BANK ANNUAL REPORT, 1962-1970

marines Sur; Zarraga, Iloilo; and Midsayap, Northern Cotabato. The palagad or second crop projects, which start from January to June, are carried out in Roxas, Isabela; Sta. Teresita, Cagayan; Pagudpud, Ilocos Norte; Ocampo, Camarines Sur; Mina, Iloilo; and Kabacan, Cotabato. Each of these special projects is headed by a project Director and complemented by a number of farm management technicians depending upon the scope of the project.

### **Agricultural Extension Service, 1969 to 1970**

The Agricultural Productivity Commission extended technical assistance on improved farm cultural practices to 423,654 farmers working on 670,613 hectares in rice, and 247,877 farmers working on 605,543 hectares in corn. Forty-three specialists, forty-eight sorghum trainees, three soybean trainees, and twenty-six rice specialists were given technical training. One hundred thirty-five rice-minikits were distributed to farmers in different parts of the country. Pilot projects were selected based on the following principal criteria:

- (a) Minimum effective irrigated area of at least one thousand hectares or more for the first crop and at least 30 to 40 percent effective area during the second crop.
- (b) Use of high yielding rice varieties for the whole or the greater area of each project.
- (c) Use of straight line planting by the farmer-cooperators.
- (d) Application of the required amount of fertilizers and insecticides.
- (e) Practice weeding or clean culture.
- (f) Practice proper water control and management.

On extension work for livestock, there were 1,585,840 heads vaccinated and 101,781 heads treated for various animal diseases. The total number of birds vaccinated were 28,460,851 and those treated, 822,281. The total number of animals given insemination were 11,790 heads and under natural insemination, 1,979.

### **Statistics of Agriculture**

The Bureau of Agricultural Economics is charged with the authority and responsibility of coordinating all statistical activities of all bureaus, corporate agencies, offices and divisions under the Department of Agriculture and Natural Resources and has immediate responsibility for the collection, tabulation, analysis, official presentation, and release of all statistics of agriculture pertaining to crops, livestock and livestock products and other related data. The Bureau also undertakes economic researches and studies in agriculture relative to the economics and agricultural development; labor requirements; farm practices and mechanization; farm costs and returns; agricultural investments, finance, credit, taxation and all factors affecting the success or failure of the farm business; and also information relative to rural welfare, agricultural marketing, prices, foreign trade, transportation, farm labor and wages, farm incomes, farm population, rural organization, agricultural relations, laws and legislation.

The Bureau also makes and publishes periodic forecasts of production for the current year of at least ten selected farm products; and further makes and publishes annual estimates on crop and livestock production by regions and provinces. It also publishes its studies, through reports, bulletins, pamphlets or other official publications.

### **Crop Production 1970 <sup>4/</sup>**

The country's total farm production for crop year ending June 30, 1970 aggregated around 15.2 million metric tons from a total harvested area of 8.9 million hectares. This year's total area hardly exceeded the hectarage for 1969 but production rose by 15 percent over the same year, owing to the influence of high-yielding cereal varieties and improved farming practices.

<sup>4/</sup> This report includes only those produced on farms or cultivated land with at least 1,000 square meters in area. Food crops especially fruits, vegetables and root crops raised in home gardens and in backyard below 1,000 square meters in area are excluded.

Both food and commercial crops registered substantial increase in production; 14 percent for food crops and 16 percent for commercial crops as shown in Table XI.7. Of the total area of 8,946,400 hectares for the eleven year period, 6,406,300 hectares were devoted to food crops while the remaining 2,540,100 hectares were planted to commercial crops. Palay accounts for the biggest land area utilized among the food crops with 3,113,400 hectares while among the commercial crops, coconut was first an area of 1,883,900 hectares. The increase in production was primarily due to the over-all favorable weather throughout the year.

Table XI.7—AGRICULTURAL LAND UTILIZATION (CROP AREA HARVESTED)<sup>a/</sup> BY KIND OF CROPS, 1960 TO 1970<sup>b/</sup>  
(In thousand hectares)

CROPS	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
<b>PHILIPPINES</b>	7,995.9	7,833.7	7,917.8	7,934.2	7,955.6	8,251.7	8,296.3	8,511.3	8,805.7	8,919.3	8,946.4
<b>Food Crops</b>	6,007.9	6,118.3	6,072.9	5,976.9	5,868.5	5,995.2	6,061.8	6,090.0	6,400.8	6,440.2	6,406.3
Palay (rough rice)	3,306.5	3,197.8	3,179.8	3,161.3	3,087.4	3,199.7	3,109.2	3,096.1	3,303.7	3,332.2	3,113.4
Corn (shelled)	1,845.5	2,045.5	2,016.3	1,946.5	1,877.6	1,922.8	2,106.1	2,177.9	2,247.9	2,256.1	2,438.6
Fruits and Nuts except Citrus	319.6	328.5	366.5	366.0	364.6	372.0	353.0	353.8	369.9	368.0	388.3
Citrus	22.9	27.8	28.6	29.1	28.4	28.6	28.5	28.7	28.6	25.3	21.3
Rootcrops	289.1	282.6	261.3	264.4	287.9	273.6	262.8	252.1	250.4	253.6	252.4
Vegetables except Onions and Potatoes	72.1	53.8	59.4	47.7	46.5	45.8	47.0	47.7	45.9	48.6	51.1
Onions	6.5	5.5	6.0	4.8	4.2	4.8	5.2	4.9	4.7	4.9	7.4
Ginger	-	-	-	-	-	-	-	-	-	-	1.3
Irish Potatoes	2.1	2.2	2.2	2.5	2.6	2.5	2.5	2.6	2.5	3.0	3.0
Beans and Peas	78.2	63.1	67.2	68.9	61.1	76.0	54.9	47.4	48.2	45.3	40.0
Coffee	30.5	39.0	50.4	42.0	42.0	3	45.7	30.1	49.4	51.9	54.8
Cacao	6.6	9.5	9.1	9.7	9.2	4.6	9.4	8.8	9.2	9.2	8.4
Peanuts (unshelled)	24.3	21.8	19.6	19.4	25.2	24.1	25.8	28.5	29.7	31.0	32.4
All other food crops	4.0	11.8	11.1	11.6	11.8	11.4	11.7	11.4	11.3	11.2	11.7
<b>Commercial Crops</b>	1,988.0	1,715.4	1,844.9	1,957.3	2,087.1	2,256.5	2,234.5	2,421.3	2,404.9	2,479.7	2,540.1
Coconut	1,099.4	1,199.9	1,283.7	1,392.3	1,482.9	1,604.7	1,610.9	1,820.2	1,800.4	1,845.5	1,883.9
Sugarcane	242.2	232.2	254.7	258.8	269.9	297.5	315.3	308.7	318.3	343.0	366.1
Abaca	175.2	174.6	182.6	181.9	210.5	193.3	198.0	186.1	170.7	172.9	173.0
Tobacco	51.7	45.2	47.3	41.3	34.5	28.8	25.4	24.8	28.7	32.3	33.4
Virginia	44.1	45.9	33.2	36.1	61.0	47.3	60.3	57.7	64.9	57.1	54.0
Native	1.7	2.0	2.6	3.2	3.2	3.1	2.8	2.5	0.8	1.4	2.4
Rubber	5.2	10.1	14.4	18.1	19.8	17.0	15.7	15.2	15.2	23.2	21.8
Manioc	2.9	2.6	3.0	2.9	2.5	2.7	3.0	3.0	2.9	2.8	2.8
Lychee (with seeds)	3.4	2.3	2.6	2.6	2.7	3.0	3.1	3.1	3.0	2.9	2.7
Orchard (with seeds)	2.2	0.6	0.8	0.1	0.1	0.1	a/	a/	a/	a/	a/

a/ Crop year is July 1 to June 30. Except for 1961 means crop year ending June 30, 1961.

b/ Revised estimates.

a/ Including soybeans.

a/ Less than 0.1 thousand hectares

Source: Bureau of Agricultural Economics, DARR.

## Food Crops

Table XI.8 below gives a summary of food crops, by production and value from 1960 to 1970. This includes palay, corn, fruits and nuts root crops, vegetables, coffee, peanuts and the like. The general trend shows an increase in both volume of production and value. In 1960, production was 7,315,017 thousand kilograms valued at P1,168,057 thousand pesos. This amount gradually improved thus in 1965 production was 8,478,916 thousand kilograms indicating a 13.72 percent increase valued at P1,965,261 thousand pesos. In 1970, the output increased by 1,991,078 thousand kilograms; and increment of 25.48 percent in five-year period.

Table XI.8 — Food Crops Production and Value, 1960-1970

Year	FOOD CROPS	
	Quantity (Thousand Kgs. or M.T.)	Value (Thousand Pesos)
1960	7,315,017	1,168,057
1961	7,401,277	1,362,515
1962	7,830,315	1,438,343
1963	7,973,945	1,540,020
1964	8,298,271	1,864,913
1965	8,478,916	1,965,261
1966	8,598,921	2,172,563
1967	8,751,741	2,449,990
1968	9,293,749	3,116,743
1969	9,345,564	3,445,888
1970	10,469,994	4,750,164

Source: Bureau of Agriculture Economics, Department of Agriculture and Natural Resources.



*Palay (rough rice)*

The total estimated output in 1970 amounted to 119 million sacks of 44 kilograms from a harvested area of 3.1 million hectares. Compared with 1969 estimates, this year's production was larger by almost 18 percent despite a registered 7 percent overall decrease in crop hectarage. This was due to a 26 percent increase in yield per hectare which may be attributed to the widespread use of high-yielding varieties and the wide application of technical inputs; i.e., fertilizers, insecticides, pesticides, and weedicides, as well as the fairly good weather which generally prevailed in most parts of the country.

**Table XI.9 — Production of Palay: Area, Quantity and Value,  
Philippines, 1960-1970**

Year	Area (Hectare)	Quantity (Thousand Kgs)	(Thousand Pesos) Value
1960	3,306,500	3,739,507	711,933
1961	3,197,750	3,704,756	838,335
1962	3,179,190	3,910,056	902,284
1963	3,161,320	3,966,983	948,830
1964	3,087,450	3,842,859	1,148,220
1965	3,199,670	3,992,463	1,227,662
1966	3,109,180	4,072,636	1,314,046
1967	3,096,120	4,094,020	1,381,384
1968	3,303,660	4,560,697	1,858,113
1969	3,332,750	4,444,656	1,717,850
1970	3,113,440	5,233,408	2,073,663

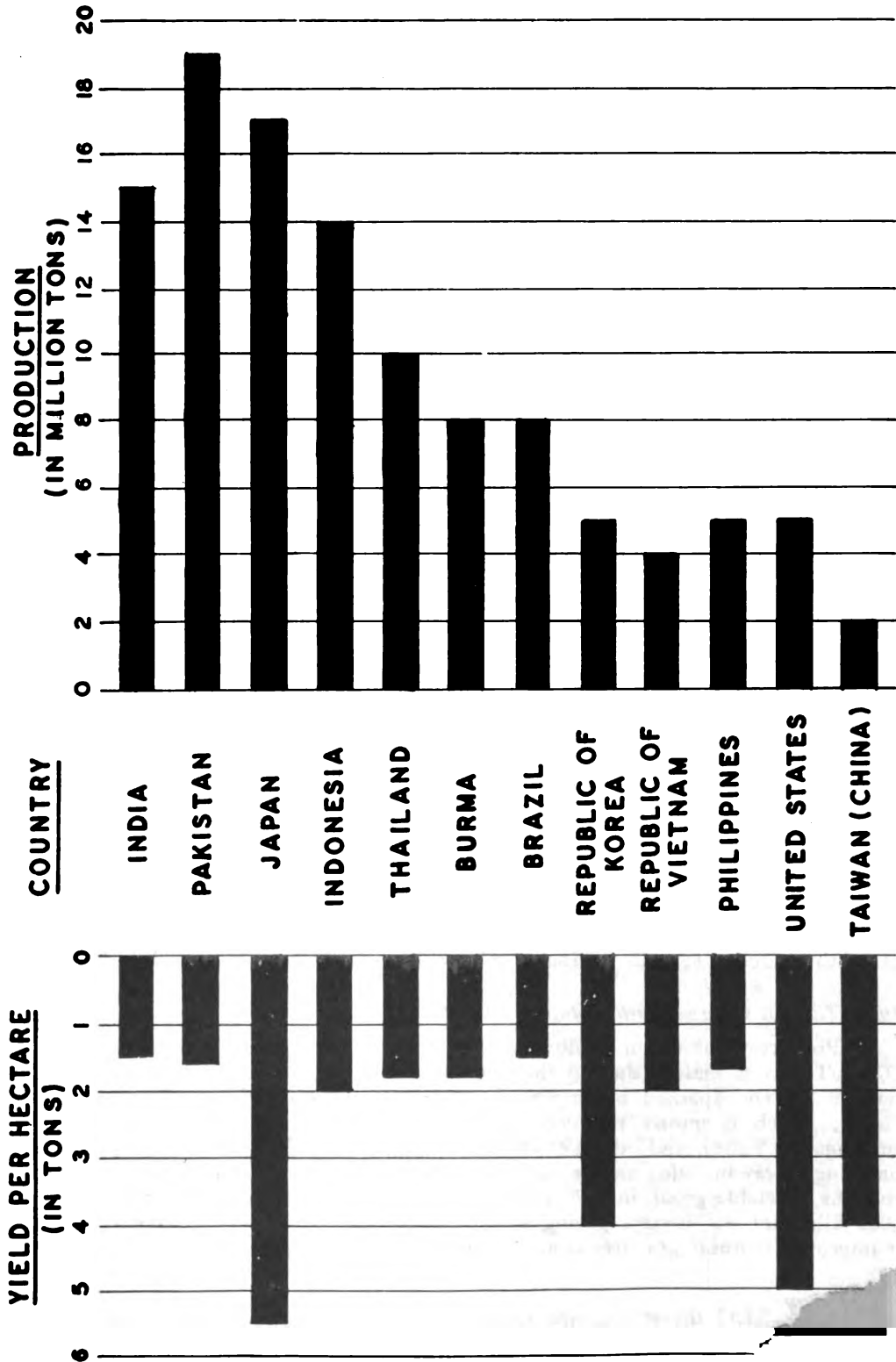
Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

Figure XI.4 shows how the Philippines stand among the neighboring countries with respect to rice production. The Philippines ranks ninth among the twelve; she has almost the same production level as those of Korea, Republic of Vietnam and China. In rice yields per hectare, the Philippines ranks tenth.

*Corn (Shelled)*

The 1970 total corn production reached 35 million sacks (of 57 kilograms), thus exceeding the 1969 level by 16 percent. The total harvested area was 2.4 million hectares, or 7 percent larger than that of the previous year. This increment in production may be attributed to increases in both area and yield. The increase in yield was mainly due to the intensive utilization of production inputs the planting of high yielding varieties, and the timely favorable weather in most places.

FIGURE XI. 4  
PRODUCTION OF RICE, BY COUNTRY: 1969



**Table XI.10 — Production of Corn: Area, Quantity and Value,  
Philippines, 1960-1970**

Y e a r	Area (Hectare)	Quantity (Thousand Kilograms)	Value (Thousand Pesos)
1960	1,845,500	1,165,274	149,726
1961	2,045,460	1,209,557	187,877
1962	2,016,270	1,266,271	171,258
1963	1,949,510	1,272,850	188,402
1964	1,897,570	1,292,709	262,833
1965	1,922,750	1,312,682	272,775
1966	2,106,080	1,379,828	310,450
1967	2,157,950	1,489,952	328,334
1968	2,247,860	1,619,153	346,485
1969	2,256,140	1,732,834	403,788
1970	2,419,600	2,008,213	525,863

Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

As Tables XI.9 and XI.10 show, 1970 accounts for the biggest production of palay and corn, both of which increased gradually over the period under review. The former, however, lagged behind corn in terms of growth rate.

#### *Root Crops*

Except Irish potatoes, include camote, cassava, gabi, pao (galiang), tugui, and ubi. For the period 1960-1969, fluctuations in the output of root crops are evident. In 1964 production reached a peak, with 1,552,451 thousand kilograms valued at ₱143,721,700. Among the root crops, camote had the highest production during the period, followed by cassava. Although the trend in production fluctuated markedly, the value of the products continued to increase. From 1969 to 1970, there was a decrease of 9.83 percent in total production. Owing to the shift in crops, hectarage decreased by 1.2 thousand hectares (Table XI.7), thus producing only 1,316.3 metric tons for 1970 as shown in Table XI.11.

#### *Onion (Bulb), Ginger, Irish Potatoes and other Food Crops*

Production of onion (bulbs), ginger, Irish potatoes, and other food crops increased in 1970. This was mainly due to the expansion in area planted for these commodities by more than 50 percent, sparked by improved market conditions and better methods of production. Ginger, which is mostly produced in Northern and Eastern Mindanao, Southern Tagalog and Cagayan Valley, yielded 4,459,500 kilos in 1970 valued at ₱3,234,000. It was only this year that ginger was included among the food crops group. Irish Potato, another root crop excluded from the vegetable group in 1970 yielded 6,746 kilogram per hectare as compared to 1969 with 6,085 kilogram per hectare giving a 10.86 percent increase. The expansion in output was due to improved cultural practices coupled with an overall favorable weather condition.

XI.12 shows a comparative annual production and value of production of onions, and other food crops.

Table XI.11—ROOT CROPS: PRODUCTION AND VALUE, 1960 - 1970

Year	Total	Production (Thousand Kilograms)						Total Value (Thousand Pesos)
		Cassava	Cassava	Cassava	Peas (Galina)	Yam	Yam	
1960	1,411,561	827,297	442,413	84,838	10,411	15,327	31,276	84,438
1961	1,445,264	738,520	546,611	92,498	8,812	16,462	42,361	113,867
1962	1,334,070	695,466	494,805	84,240	9,847	12,476	37,236	111,775
1963	1,360,376	748,802	497,774	94,939	8,770	12,846	37,245	121,078
1964	1,552,451	783,647	596,156	112,830	14,755	11,826	33,237	143,723
1965	1,536,727	725,125	645,780	111,607	15,676	10,803	27,797	149,518
1966	1,472,025	701,237	614,386	100,630	18,695	10,826	26,232	179,656
1967	1,367,570	686,761	528,727	96,265	18,215	10,899	26,702	193,978
1968	1,305,248	672,395	481,928	97,268	18,374	10,289	24,994	205,679
1969	1,338,107	706,274	487,327	94,179	17,780	9,461	23,087	278,198
1970	1,316,263	731,394	442,223	91,628	17,777	8,828	24,413	404,523

Source: Bureau of Agricultural Economics, DANR.

Table XI.12 — Onion (Bulb), Irish Potato and other Food Crops  
Production and Value, 1960-1970  
(Quantity in thousand kilos; Value in thousand pesos)

Year	Onions		Irish Potato		Other Food Crops	
	Production	Value	Production	Value	Production	Value
1960	16,992	5,465	6,607	2,732	8,200	1,400
1961	17,885	6,415	10,159	3,956	30,024	5,517
1962	19,992	6,936	10,531	3,978	36,531	7,453
1963	15,204	5,137	15,074	5,933	45,099	8,196
1964	13,199	4,401	17,665	7,008	44,824	6,669
1965	15,186	4,849	15,892	6,261	49,523	9,050
1966	16,381	5,511	16,856	6,657	51,988	8,388
1967	15,639	8,096	16,956	6,163	54,004	18,319
1968	15,073	10,466	12,254	4,168	46,269	21,002
1969	15,365	13,507	18,377	11,268	49,375	25,553
1970	30,699	33,163	20,104	13,416	67,996	40,526

Source: Bureau of Agricultural Economic, DANR.

*Beans and Peas*

This group includes dried beans and mongo with the addition of soybeans for 1970, as shown in Table XI.13. The total output of 21.8 thousand metric tons compared with 20 thousand metric tons for 1969 estimates, showing 1970 production to be larger by a meager .008 percent.

*Coffee*

Coffee yielded a larger amount of production than mongo, cacao and peanuts. Its total output shown also in Table XI.13 amounted to 49,016,900 kilograms exceeding the previous year's 24,171,500 kilograms. In 1970, its maturing trees of bearing age number 43,509,400 thus giving a 10 percent production increase.

*Cacao*

The decline of 2.96 percent in cacao production (see Table XI.13) from last year's 4,420 thousand kilograms was due to decreased number of bearing trees and pests and diseases in Southern Tagalog, and Southern and Western Mindanao regions.

*Peanuts (Unshelled)*

The total production amounted to 17,403 thousand kilograms, exceeding the previous year's level by 17 percent. The total harvest area is 32,450 thousand hectares or 4.78 percent more than the previous year's report. This expansion as shown in Table XI.13 was attributed to the favorable market condition whereas increase in yield was brought about by favorable weather and improved cultural practices.

**Table XI.13 — Beans, Mongo, Coffee, Cacao and Peanuts:  
Production and Value, 1960-1970**

Year	Total	Production (Thousand Kilograms)					Total Value (Thousand Pesos)
		Beans and peas	Mongo	Coffee	Cacao	Peanut (Unshelled)	
1960	86,502	12,265	30,016	25,868	3,067	15,286	75,575
1961	82,170	8,400	24,987	32,326	3,628	12,830	64,165
1962	90,271	8,709	24,344	43,104	3,246	10,868	69,918
1963	78,685	12,296	18,992	32,884	3,386	11,129	78,300
1964	84,522	7,429	19,986	39,311	3,505	14,291	85,363
1965	87,254	7,410	18,337	44,145	4,177	13,185	89,570
1966	84,472	7,237	16,780	42,793	4,011	13,651	91,003
1967	82,580	6,387	14,099	44,291	3,537	14,265	135,089
1968	84,979	5,693	16,274	43,862	4,153	14,996	176,400
1969	83,515	4,745	15,302	44,172	4,420	14,877	209,273
1970	92,518	5,815	15,991	49,017	4,293	17,402	295,654

Source: Bureau of Agricultural Economics, DANR.

*Vegetables*

As of 1970, 51,110 hectares of land were used for vegetable crops compared with the previous year's 48,600 hectares. The production is 18.35 percent higher than that of 1969 — 215,429 thousand kilograms compared with 255.0 thousand kilograms 1970 production. Its increase is attributed to favorable conditions and improved cultural practices in addition to area expansion. As shown in Table XI.14 from 1960-1963, the total production of vegetables varied from 161,619 thousand kilograms in 1960 to 146,904 thousand in 1961, indicating a decrease in total production. However, there was an increase the following year, 1962, with 166,934 thousand kilograms only to drop again to 151,916 thousand kilograms in 1963. The decrease in total production in 1961 and 1963 was due to drought during the dry season and the damage caused by typhoons during the rainy season. Other possible reasons are the decrease in area planted to these vegetables and the prohibitive cost of planting materials which caused the shift of cultivation to other crops.

There was a steady increase in total production and value in the period 1964-1970.

Table XI.14—VEGETABLE: PRODUCTION AND VALUE, 1960-1970

Year	Total	Production (Thousand Kilograms)						Total Value (Thousand Pesos)
		Cabbage	Eggplant	Carrie	Pechay	Raddish	Tomato	
1960	161,619	29,375	52,859	5,544	9,831	10,676	53,333	37,362
1961	146,904	30,971	45,468	6,856	10,099	6,711	46,801	34,828
1962	166,934	52,827	54,751	8,444	11,218	8,230	51,684	44,122
1963	151,916	32,800	44,502	7,120	12,486	7,896	47,110	39,313
1964	169,529	40,436	44,234	7,415	14,067	9,897	53,480	42,780
1965	184,885	31,702	46,737	11,043	12,544	9,645	73,214	49,777
1966	191,538	32,087	51,852	11,354	14,308	10,046	71,892	55,677
1967	199,688	34,584	53,808	12,700	14,307	10,199	74,130	80,391
1968	201,102	31,068	62,589	10,431	15,749	8,134	73,131	99,090
1969	215,429	35,961	58,991	10,113	16,400	8,106	85,858	136,767
1970	254,967	45,422	68,599	9,762	17,144	6,598	107,450	195,950

Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

### Fruits and Nuts (except Citrus)

The total production of fruits and nuts (except citrus) for 1970 was 1,569,485 thousand kilograms. Of these, banana accounted for 57.09 percent of the total production, or 896,021 thousand kilograms, pineapple accounted for 14.87 percent while mango accounted for 9.66 percent of the total production. Increase in output for the years of these crops was due to favorable weather and increased number of bearing trees.

From 1960 to 1964, the trend in production increased. But in 1965 there was a drastic drop of 46 percent from that of the previous year. This was due to the decrease in production of avocado, banana, caimito, guayabano, watermelon and pili. However, crop year 1966 saw an increase in total production by 2.0 percent from the 1965 level. For value of production see Table XI.15.

Table XI.15—FRUITS AND NUTS EXCEPT CITRUS: PRODUCTION AND VALUE, 1960 - 1970  
(Production in thousand kilograms; Value in thousand P1,000)

Fruits	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Total Value	88,915	92,485	106,798	129,419	148,660	133,277	182,672	372,011	379,332	613,355	1,121,793
Total Production	675,406	700,687	931,560	1,005,635	1,219,130	1,213,483	1,237,935	1,322,833	1,371,409	1,373,380	1,569,485
Apple	1,842	3,763	3,627	3,332	2,808	3,145	3,895	4,098	3,165	2,883	3,439
Breadfruit	6,361	9,773	13,316	13,911	14,423	13,506	15,885	16,961	14,381	15,179	18,090
Banana	307,278	348,975	524,899	556,912	754,916	684,845	682,724	765,429	780,364	764,896	896,021
Cashew	3,647	8,671	9,918	11,570	12,322	11,982	14,292	15,744	15,545	15,568	16,977
Cashew	5,213	5,479	8,111	6,761	5,520	5,475	4,766	5,510	5,564	5,335	6,315
Chico	3,881	4,896	6,375	6,405	5,940	6,255	6,272	7,320	5,540	6,274	5,986
Guayabano	4,789	3,731	5,219	4,992	8,472	8,235	9,763	9,851	7,696	8,097	8,694
Jack fruit	67,223	49,784	62,790	54,619	55,254	73,485	80,284	84,939	82,462	73,802	68,851
Lemon	22,478	20,482	20,717	21,050	21,686	21,976	20,471	21,623	19,694	19,326	22,378
Mango	57,567	79,335	66,147	92,203	95,086	129,401	131,490	134,091	126,438	140,644	151,646
Papaya	42,079	47,699	50,642	51,516	54,572	58,755	57,993	61,623	51,239	50,906	60,462
Pili	4,817	3,900	4,779	3,133	3,133	983	975	1,030	1,111	1,383	2,365
Pineapple	131,902	115,804	139,588	151,446	155,727	176,063	188,207	208,104	285,999	238,362	233,431
Watermelon	15,331	18,374	17,260	25,796	29,262	19,379	20,918	16,508	30,986	48,126	74,861

Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

*Citrus*

Citrus fruits include calamansi, mandarin, orange and pomelo. Great strides were made in 1967 when output of these crops increased by 4.30 percent. However, in 1968 total production decreased from 78,500 to 77,569 thousand kilograms. This slump as shown in Table XI.16 was reported to have been caused by the prevalence of pests and diseases in Southern Tagalog region, particularly Batangas. About 50 percent of the trees in this region were affected and therefore cut down. The area was reported to have been planted with sugarcane instead.

**Table XI.16. — Citrus: Production and Value 1960-1970**

Year	Total	Production (Thousand Kilograms)				Total Value (Thousand Pesos)
		Calamansi	Mandarin	Orange	Pomelo	
1960	43,349	3,528	11,596	6,692	21,534	10,532
1961	53,890	6,912	22,605	5,140	19,234	15,094
1962	62,099	8,095	25,120	6,822	22,062	13,827
1963	62,125	8,244	25,189	6,966	21,725	15,413
1964	61,383	9,018	25,383	6,712	20,260	15,261
1965	70,821	9,671	28,781	9,276	23,094	17,523
1966	75,262	10,908	30,511	8,766	25,077	18,507
1967	78,500	11,492	30,591	9,548	26,869	27,047
1968	77,569	10,473	28,235	9,517	29,345	36,369
1969	74,604	8,811	27,530	10,004	28,259	36,118
1970	70,686	9,412	21,373	11,137	28,765	40,970

Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

### Commercial Crops

Table XI.17 below gives us a summary of the production of commercial crops during the period of 1961-1970. Aggregate production of commercial crops which include coconut, sugarcane, abaca, maguay, ramie, tobacco, rubber, kapok and cotton increased by 40.02 percent from 1961 to 1970. Correspondingly its value increased by 316 percent. Figure XI.5 shows the value breakdown in percentage from 1961 to 1970.

**Table XI.17 — Commercial Crops Total Production and Value: 1961-1970**

Year	Production (Thousand Kilograms)	Value (Thousand Pesos)
1961	31,241,181	817,536
1962	3,625,326	675,139
1963	3,919,008	1,239,377
1964	3,983,084	1,305,921
1965	3,790,832	1,327,243
1966	3,634,198	1,490,518
1967	3,914,704	1,782,576
1968	3,986,394	2,064,884
1969 <sup>1/</sup>	2,329,255	2,193,891
1970	4,538,514	3,404,010

1/ Excludes ramie, coconut, maguey, kapok, cotton rubber.

Source: Bureau of Agricultural Economics, DNR.

#### *Coconut*

The Philippines is by far the world's largest producer of coconut and coconut products, ranking first in the production and export of copra, coconut oil, copra meal, copra cake, and desiccated coconut. Table XI.18 shows production and export of coconut products compared with that of other principal coconut-producing countries which include Indonesia, Ceylon, India, Malaysia, New Guinea, and Mozambique.

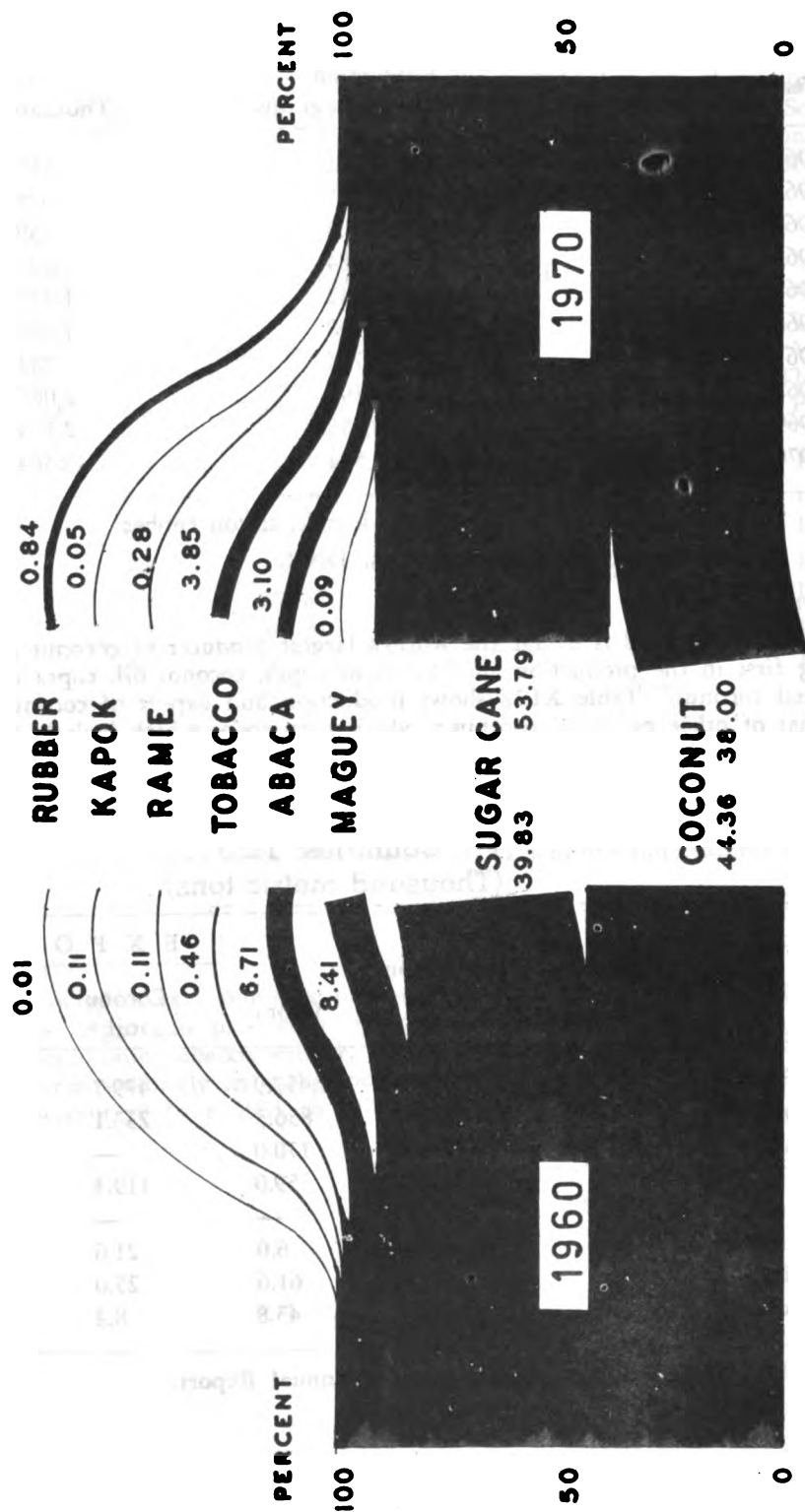
**Table XI.18 — Production and Export of Coconut Products by Selected Countries: 1969**  
(Thousand metric tons)

Countries	Production Copra	Copra	E X P O R T S		
			Coconut oil	Meal/ cake	Desiccated coconut
World Total	3,350.0	1,457.9	479.7	453.0	119.2
Philippines	1,428.4	856.3	233.1	191.8	68.6
Indonesia	N.R.	170.0	—	110.0	—
Ceylon	315.0	59.0	119.4	18.0	50.6
India	264.0	—	—	25.6	—
Malaysia	116.0	6.0	21.6	0.1	—
New Guinea	91.3	61.6	25.0	14.2	—
Mozambique	55.0	43.8	8.4	5.6	—

Source: Philippine Coconut Administration Annual Report.



**FIGURE XI.5**  
**PERCENT DISTRIBUTION OF COMMERCIAL PRODUCTS:**  
**1960 AND 1970**



SOURCE: BUREAU OF AGRICULTURAL ECONOMICS, DANR

In 1969, the country's total production of coconut was 1,428.4 thousand metric tons, or approximately 42.64 percent of the world's total production (3,350.0 thousand metric tons). Indonesia ranks as the second major exporter of copra and meal cake. Ceylon produced 315.0 thousand metric tons of coconut, second only to the Philippines, and third in the exportation of copra, coconut oil and desiccated coconut. India was an isolated case, with a production of 264.0 thousand metric tons of copra and export of meal cake, but she is a net importer of copra and coconut oil.

In the early 1920's Indonesia was the leading copra exporting country of the world. However, in the whole post war period the Philippines has dominated the world coconut trade. By 1964, the Philippines produced 43 percent of the world's copra and supplied 52 percent of the total world exports of this commodity. Almost 50 percent of the world's coconut oil exports originated from the Philippines and played an equally dominant role in the exports of copra meal and desiccated coconut.

The importance of the Philippine coconut industry is also indicated by its role in the domestic economy. Almost one-third of the total cultivated farm land<sup>5/</sup> is devoted to coconut and about one-quarter of the population is engaged in its production.

Table XI.19—SIZE OF COCONUT FARMS, BY NUMBER AND AREA: 1939, 1948 AND 1960

Size of Farm	1939				1948				1960			
	Number of Farms	Percent	Farm Area (Hectares)	Percent	Number of Farms	Percent	Farm Area (Hectares)	Percent	Number of Farms	Percent	Farm Area (Hectares)	Percent
TOTAL	1,934,000	100.00	1,761,000	100.00	233,086	100.00	1,082,028.48	100.00	440,252	100.00	1,938,620.9	100.00
SMALL (less than 4 hectares)	325,000	16.80	560,000	31.80	176,316	75.64	346,249.11	32.00	279,074	63.39	506,476.7	26.13
MEDIUM (less than 20 hectares)	1,600,000	82.73	928,000	52.70	53,223	22.40	389,530.25	36.00	153,171	34.79	1,093,299.2	56.40
LARGE (more than 20 hectares)	9,000	0.46	273,000	15.50	3,547	1.52	335,428.82	31.00	8,007	1.82	338,845.0	17.48

For purposes of analysis, coconut farms, in terms of size are divided into groups, small medium and large.

Source: Census of Agriculture 1939, 1948 and 1960, Bureau of the Census and Statistics.

Today, approximately 500,000 Filipino families own parcels of coconut land spread all over Luzon, Visayas and Mindanao, comprising almost 40 provinces. The pattern of land ownership is indicated in Table XI.19.

Coconut planters prefer the small size farmlands of less than 4 hectares to the medium size of less than 20 hectares to the large size of more than 20 hectares. This was reflected in the 1948 and 1960 Agricultural Census. In 1948, of the 233,086 farms utilized for the cultivation of coconut trees, 176,316, or 75.64 percent, were small farms. The number increased to 279,074 farms in 1960 which was 63.39 percent of the total number of farms. In 1939 the total number of farms was 1,934,000 with an area of 1,761,000 hectares. In 1948 these declined to 233,086 farms with an area of 1,082,028.40 hectares owing to disease and pest infestation mainly from leaf molting or cadang-cadang disease. However, the decline was offset by the record of 1960 showing an increase of 207,166 or 88 percent, in number of farms and 856,593 or 77 percent, in cultivated area.

Coconut is grown in all the provinces of the country, but the most important regions are Southern Tagalog, Bicol, Eastern Visayas, Southern Mindanao and Western Mindanao, particularly in the seven provinces of Laguna, Quezon, Camarines Sur, Leyte, Samar, Davao and Cotabato. These places have moderate climate, fertile soil, and constant water supply which make them conducive to coconut production. Coconut does not thrive in areas in which there is an extensive range of temperature.

5/ Census of Agriculture 1960 shows that the area planted to coconut was 1,497 thousand hectares and 27 percent of all cultivated land (5,580 thousand hectares).

Owing to high demand for desiccated coconut and foodnuts in 1970 (see Table XI.20) there was an increase of 166,480 thousand kilograms, or 10.67 percent, over the previous years production 1,559,698 thousand kilograms. A decline in output by 3.97 percent was reported in 1968 (1,598,143 thousand kilograms against 1,664,271 thousand kilograms in 1967) but its value increased by 4.57 percent (from P905,047 million in 1967 to P946,407 million in 1968) owing to the increase in the world price of coconut and its by-products.

**Table XI.20 — Coconut Productions, Value and Percentage: 1960-1970<sup>1</sup>**

Y e a r	(Thousand Kilograms)	Percentage Increase/Decrease	Value (Thousand Pesos)	Percentage Decrease Increase/
1960	1,117,349	—	389,615	—
1961	1,130,329	1.16	359,997	(7.60)
1962	1,418,855	25.52	486,376	35.10
1963	1,555,678	9.64	631,580	29.85
1964	1,550,118	( 0.35)	629,367	(0.35)
1965	1,533,567	( 1.07)	672,251	6.81
1966	1,561,294	1.81	789,530	17.44
1967	1,664,271	6.60	905,047	14.63
1968	1,598,143	( 3.97)	946,407	4.57
1969	1,559,698	( 2.40)	895,497	(5.38)
1970	1,726,178	10.67	1,272,968	42.15

1/ Includes copra and desiccated coconut crops.

Source: DANR, Bureau of Agricultural Economics, 1971

### *Sugar Cane*

Before World War II, 47 sugar mills were in operation throughout the country. These were established between 1911 and 1930. They produced a total of 1,565,415 short tons in an area of about 383,280 hectares in crop year 1933-34. The enactment of the Jones-Costigan Law in the United States and the corresponding institution of the Sugar Limitation Law in the Philippines, when the quota system was imposed on the sugar industry in 1933-34, caused total production to drop between 695,133 and 1,147,149 tons in subsequent years up to the outbreak of the last World War.

Of the 47 sugar mills only 25 were reestablished in the Philippines after the war. However, despite this situation, actual production increased from 1,565,415 short tons to 1,855,084 short tons from the same area of 238,000 hectares planted to sugar before and after the war.

So far, only three other mills have been added; these are the AIDSISA, First Farmers Milling Company, and the San Mariano Development Corporation, which sugar farmers organized and started operating in 1965 in line with continuing efforts to bring about the effective integration, industrialization, and diversification of the sugar industry.

The history of sugar marketing in the United States provides an insight into the Philippine sugar industry inasmuch as the United States is the main sugar export market of the Philippines. In 1931 the U.S. consumed about 6,727,000 short tons. This consumption gradually increased from year to year until it reached more than 10,300,000 tons in 1965. The major suppliers of the United States outside of its domestic producers — Hawaii, Mainland cane and sugar beet, Virgin Island and Puerto Rico — were Cuba and the Philippines; some insignificant quantities come from other countries. Cuba had been the major foreign supplier

of the United States until after the latter broke relations with the former in 1961. Throughout the 30 years, from 1931 to 1961, the Philippines continued to be the second biggest supplier of sugar in the United States market. The Philippines postwar sugar exports to the United States had, however, always been limited to the 980,000 ton quota limitation imposed by the Jones-Costigan Law until 1961 when Cuba severed relations with the United States. After 1961, Cuba's U.S. sugar quotas were distributed to new suppliers which included about 30 countries. The Philippines then was not given an increase in its basic quota. She was made to enjoy non-quota purchase arrangements. The foreign suppliers which constituted an insignificant group in the United States sugar market became an aggregate major supplier after 1961, with a shipment totalling 3,360,000 tons in 1963.

The Philippines had a break when amendments were approved by the U.S. Congress to the U.S. Sugar Act Public Law 89-331 on November 8, 1965. In addition to the 1,050,000 short ton basic quota of the Philippines in the United States market, the country was able to participate to the extent of 47.22 percent of export deficits of other supplying countries and the U.S. domestic producers, plus 10.86 percent participation in the United States consumption growth from 970,000 short tons, or a maximum of 10,400,000 short tons (See Table XI.21).

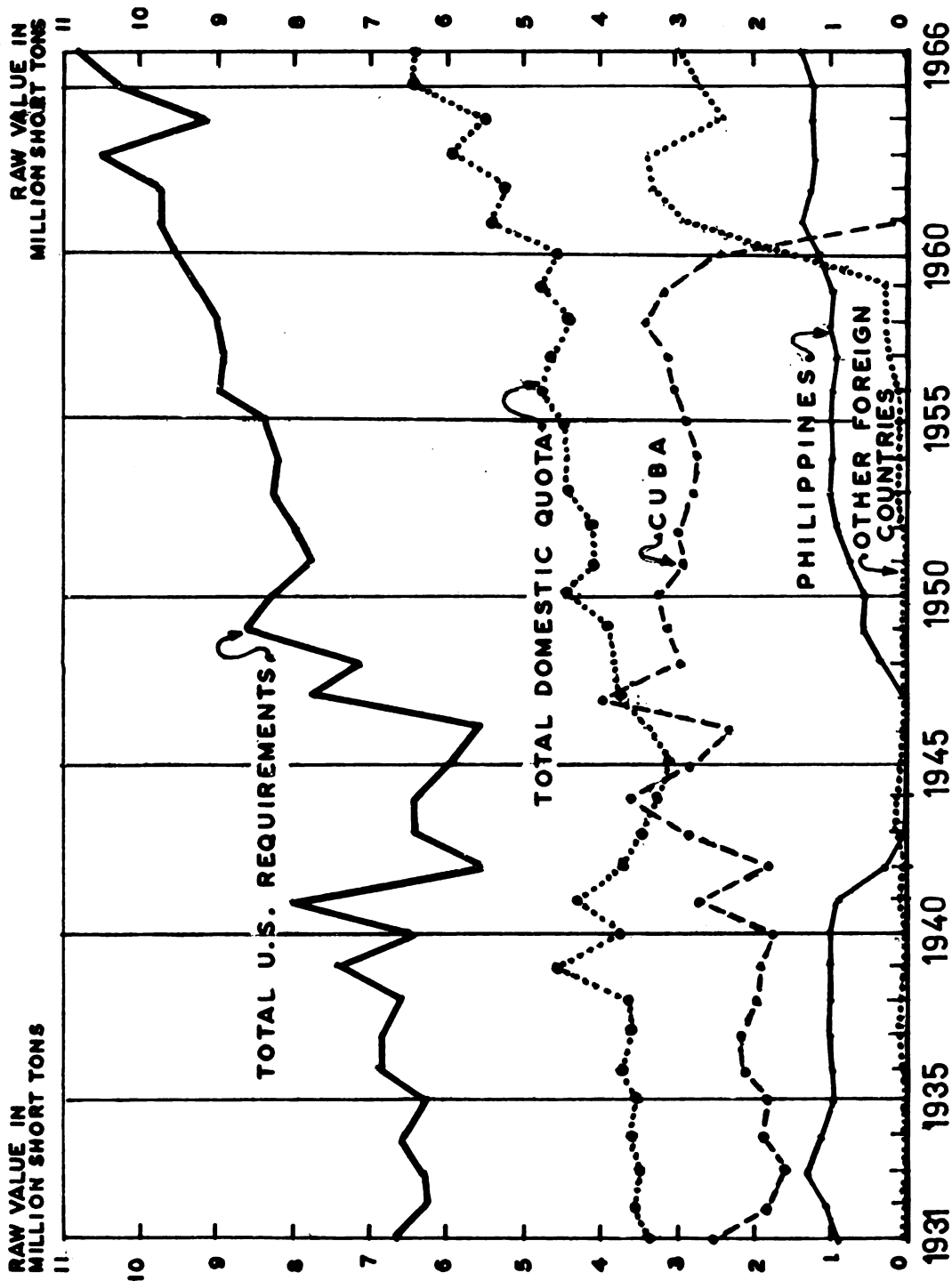
Table XI.21—SHIPPING AND MARKETING OF SUGAR IN CONTINENTAL U.S.  
1931 - 1964

(In thousand short tons, Raw Value)

Year	Total	Continental U.S.		Hawaii	Puerto Rico	Virgin Islands	Philippines	Cuba	Other Foreign
		Reef	Mainland						
1931	6,727	1,343	206	998	796	2	872	2,482	28
1932	6,303	1,319	160	1,048	940	5	1,028	1,791	12
1933	6,331	1,366	315	990	793	5	1,249	1,573	40
1934	6,574	1,562	268	948	807	5	1,088	1,866	30
1935	6,277	1,478	319	927	793	2	917	1,830	11
1936	6,833	1,364	409	1,033	907	4	985	2,102	29
1937	6,860	1,245	491	985	896	8	991	2,155	89
1938	6,619	1,448	449	906	815	4	981	1,941	75
1939	7,466	1,809	587	966	1,126	5	980	1,930	62
1940	6,433	1,550	406	941	798	-	981	1,750	17
1941	8,009	1,952	411	903	993	5	855	2,700	190
1942	5,555	1,703	407	751	836	-	23	1,796	39
1943	6,466	1,524	460	866	642	3	-	2,857	114
1944	6,942	1,155	515	802	743	3	-	3,618	106
1945	5,997	1,043	417	740	903	4	-	2,803	87
1946	5,657	1,379	445	633	867	5	-	2,282	46
1947	7,759	1,574	383	842	969	3	-	3,943	45
1948	7,084	1,656	456	714	1,013	4	252	2,927	62
1949	7,588	1,487	557	769	1,091	4	525	3,103	52
1950	8,279	1,749	522	1,145	1,053	11	474	3,264	61
1951	7,759	1,730	457	941	959	6	707	2,946	13
1952	7,991	1,560	579	972	983	6	860	2,980	51
1953	8,282	1,749	513	1,087	1,118	12	932	2,760	111
1954	8,240	1,802	501	1,040	1,082	10	974	2,718	113
1955	8,396	1,797	500	1,052	1,080	10	977	2,862	118
1956	8,992	1,955	601	1,091	1,135	13	982	3,089	126
1957	8,916	2,066	636	1,037	912	15	906	3,127	217
1958	9,076	2,240	680	630	823	6	980	3,438	279
1959	9,240	2,241	578	977	958	12	980	3,215	279
1960	9,522	2,165	619	845	896	7	1,155	2,390	1,445
1961	9,731	2,607	784	1,045	980	16	1,355	-	2,744
1962	9,797	2,415	787	1,084	904	11	1,256	-	3,340
1963	10,515	2,965	1,072	1,033	875	15	1,195	-	3,360
1964	9,109	2,693	905	1,110	793	16	1,217	-	2,369

Source: Philippine Sugar Institute.

FIGURE XI. 6  
ENTRIES AND MARKETING OF SUGAR IN  
CONTINENTAL UNITED STATES: 1931 TO 1966



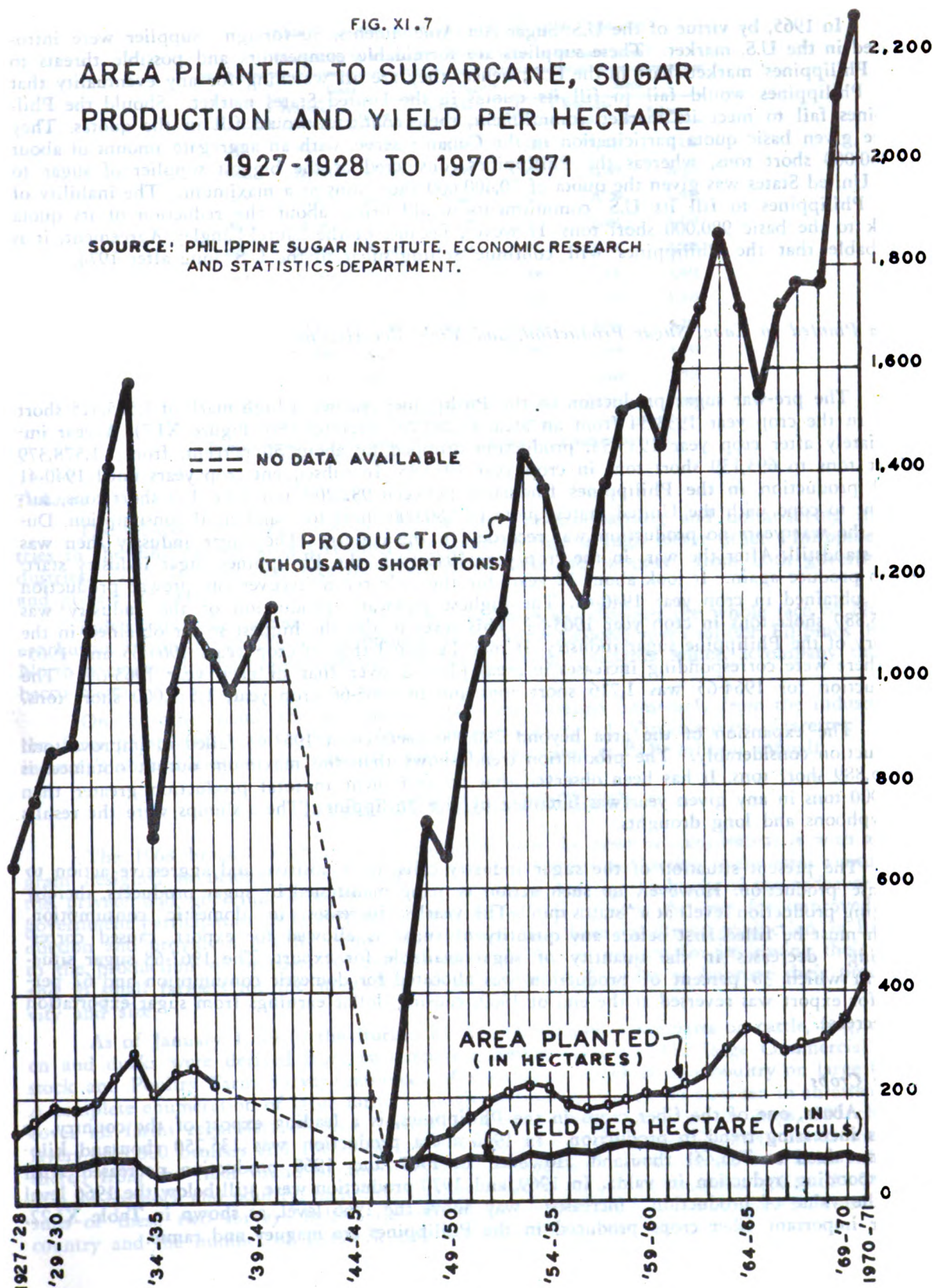
SOURCE: PHILIPPINE SUGAR INSTITUTE, ECONOMIC RESEARCH AND STATISTICS DIVISION

FIG. XI.7

# AREA PLANTED TO SUGARCANE, SUGAR PRODUCTION AND YIELD PER HECTARE

1927-1928 TO 1970-1971

SOURCE: PHILIPPINE SUGAR INSTITUTE, ECONOMIC RESEARCH AND STATISTICS DEPARTMENT.



In 1965, by virtue of the U.S. Sugar Act Amendments, 30 foreign suppliers were introduced in the U.S. market. These suppliers are formidable competitors and possible threats to the Philippines' market share in the U.S.; hence, they are all watching for any eventuality that the Philippines would fail to fill its quotas in the United States market. Should the Philippines fail to meet its market commitment, these countries would fill in the quotas. They were given basic quota participation in the Cuban reserve, with an aggregate amount of about 2,260,000 short tons, whereas the Philippines considered as the biggest supplier of sugar to the United States was given the quota of 10,400,000 short tons as a maximum. The inability of the Philippines to fill its U.S. commitments would bring about the reduction of its quota back to the basic 980,000 short tons. However, because of the Laurel-Langley Agreement, it is probable that the Philippines will continue selling sugar to the U.S. long after 1974.

#### *Area Planted to Cane, Sugar Production, and Yield Per Hectare*

The pre-war sugar production of the Philippines reached a high mark of 1,565,415 short tons in the crop year 1933-34 from an area of 283,269 hectares (See Figure XI.7). A year immediately after crop year 1933-34, production dropped by about 50 percent, from 1,578,379 short tons to 695,139 short tons in crop year 1934-35. In subsequent crop years until 1940-41 total production in the Philippines fluctuated between 982,209 and 1,147,149 short tons, sufficient to cope with the United States quota of 980,000 short tons and local consumption. During the war years no production was recorded in the country. The sugar industry then was at a standstill. After the war, in the crop year 1945-1946, the Philippines sugar industry started to produce again. It took about 12 years for the industry to recover the prewar production level obtained in crop year 1940-41. The highest postwar production of the industry was 1,855,889 short tons in crop year 1963-64. This level is also the highest so far obtained in the history of the Philippine sugar industry. It may be noted that in crop years 1964-65 and 1965-66, there were corresponding increases in areas planted over that of crop year 1963-64. The production for 1964-65 was 1,716 short tons and in 1965-66 crop year, 1,545,000 short tons.

The expansion of the area beyond 290,000 hectares in 1963-64 failed to improve total production considerably. The production trend shows that the maximum output obtained is 1,855,889 short tons. It has been observed that no increment in total production greater than 150,000 tons in any given year was obtained by the Philippines. These slumps were the results of typhoons and long droughts.

The present situation of the sugar industry calls for a positive and aggressive action to increase production. However, no such action is being manifested by sugar producers, thereby bringing production levels at a "status quo". The yearly increases in domestic consumption, which must be filled first before any quantity of sugar is allowed for export, caused corresponding decreases in the quantity of sugar available for export. The 1967-68 sugar situation in which 38 percent of production was allocated for domestic consumption and 62 percent for export was reversed at the end of 1969, causing dollar earnings from sugar exportation to decrease.

#### *Fiber Crops*

Abaca, one of the fiber crops in the Philippines, is a leading export of the country. It shows increasing trend in production. In 1966 abaca production was 135,250 thousand kilograms valued at P65,441 thousand. However, in 1967 and 1968 production decreased with corresponding reduction in value. In 1969 and 1970 production were still below the 1966 level but the value of production increased way above the 1966 level, as shown in Table XI.22. Other important fiber crops produced in the Philippines are maguey and ramie.



Table XI.22—**FISHER CROPS, PRODUCTION AND VALUE: 1960-1970**  
(Production in thousand kilograms; Value in thousand pesos)

Y e a r	Abaca		Mangrove		Rende	
	Product- ion	Value	Product- ion	Value	Product- ion	Value
1960	94,488	98,804	2,076	457	2,224	1,130
1961	114,755	65,265	2,170	460	2,029	1,035
1962	116,290	61,360	2,446	550	3,730	1,909
1963	127,781	61,403	2,196	556	5,464	3,223
1964	134,285	78,947	2,424	551	5,354	3,129
1965	134,002	78,648	2,549	536	3,502	3,245
1966	135,250	65,441	2,662	643	4,523	2,892
1967	117,615	61,964	2,748	1,721	3,930	5,188
1968	103,435	51,978	2,855	2,891	1,236	2,512
1969	105,896	66,346	2,441	2,579	1,945	3,790
1970	122,380	105,672	2,408	3,232	3,073	7,068

Sources: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

### Tobacco

The tobacco industry is also one of the large revenue-earning and dollar-saving industries in the Philippines. It has reached a magnitude that is high above other Philippine industries. This industry has received great enthusiasm and support from both government and private sectors.

Indeed, the phenomenal growth of the industry has changed the whole face of Northern Luzon. Its impact on the socio-economic life of approximately seven million Filipinos in the North is evident in the higher incomes and better living standards which accompany the tobacco boom.

On the other hand, the government has also benefited immensely from the industry in the form of specific taxes collected from the manufacture of Virginia-type cigarettes. The industry's contribution to the national treasury is estimated at ₱130 million annually.

## LIVESTOCK AND POULTRY

The 1968 breakthrough in rice production saw the need to complement it with a program designed to bridge the animal protein gap. Animal production is the joint venture of the private and government sectors, with the former bearing the brunt of the endeavor. The government participation is largely supportive. Its aim is to pave the way for improved production and provide a healthy climate for growth. Its share in direct production is limited to the production of breeders for sale to establish private projects for improving their stock and to small farmers for the upgrading of native stocks in order to improve their productivity and size.

As of January 1, 1970, the Bureau of Animal Industry's estimates on cattle, hog, chicken and ducks were derived from two separate sample surveys. The large Commercial Livestock and Poultry Farm Survey gathered information on livestock and poultry on large farms. A complete enumeration of large farms throughout the country was undertaken in an attempt to cover all farms regardless of area, raising at least 50 heads of cattle or hogs, 500 chicken layers or 1,000 broilers and 100 ducks or 1,000 ducklings. Estimates for small farms were gathered from the final round of the integrated Agricultural Survey, in which similar information on livestock and poultry, including carabao, goat, goose and turkey, were collected. The results of these two surveys helped determine the number of large commercial farms in the country and the number of livestock and poultry on large and small farms.



## Livestock

Carabaos on January 1, 1970 (see Table XI.23) totalled 4,431,500 heads compared with 4,368,700 a year earlier, indicating a 1.4 percent increase over that in 1969 both on small farms and ranches. Of the total 1,678,700 heads of cattle in 1970 about 80.7 percent was reported on small farms and 19.3 percent, on large farms. Hog population totalled 6,455,600 compared with the previous year's inventory of 6,349,700. The total number of hogs reported on small farms in 1970 was about 98.4 percent and only 1.6 percent, on large farms. Goats inventory at the start of the year under review was reported to be 10.5 percent more than the 1969 estimate.

Table - XI . 23 - LIVESTOCK POPULATION OF FARMS BY KIND, 1960 - 1970

Year	Carabao	Cattle	Horse	Hog	Goat	Sheep
1960	3,696,300	1,110,900	217,400	6,572,600	617,100	14,800
1961	3,452,000	1,054,700	197,300	6,191,400	532,300	20,100
1962	3,471,800	1,094,400	210,000	6,725,700	628,300	22,500
1963	3,323,100	1,197,200	220,200	6,233,700	483,500	13,600
1964	3,190,700	1,382,900	242,100	6,616,400	557,500	4,400
1965	3,345,600	1,559,900	264,300	6,938,500	605,500	3,300
1966	3,633,000	1,582,500	256,900	6,914,100	616,400	2,000
1967	3,926,100	1,574,800	243,800	5,496,700	599,000	1,700
1968	4,173,400	1,643,800	281,700	6,090,200	623,500	-
1969	4,368,700	1,628,900	295,300	6,349,700	698,300	-
1970	4,431,500	1,678,700	294,500	6,455,600	771,600	-

NOTE: The reference date of animal population on farms from 1960 to 1966 is March 1, and January 1 for the year 1967 to 1970.

Source: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

## Poultry

On January 1, 1969, the country's poultry population dropped by 8.6 percent in chickens, 5.1 percent in ducks, 3.1 percent in goose, 4.6 percent in turkey, and 0.09 percent in pigeon compared with those in 1968. Of the total poultry population, 9.2 percent was on large farms and 90.8 percent, on small farms. The value of all classes of poultry except chicken increased in 1970, as shown in Table XI.24.

Table XI.24—POULTRY ON FARMS AND INVENTORY VALUE, BY KIND, 1960-1970  
(Number in thousand; Value in thousand pesos)

Year	Chicken		Duck		Goose		Turkey	
	Number	Value	Number	Value	Number	Value	Number	Value
1960	52,335	67,263	2,231	3,725	97	319	38	208
1961	49,984	74,424	1,784	3,112	78	217	40	174
1962	51,354	65,706	1,934	3,004	84	232	73	326
1963	48,624	75,573	1,594	3,205	127	366	100	611
1964	51,648	81,376	1,602	2,940	80	227	93	580
1965	56,929	96,693	1,478	4,142	88	250	94	545
1966	68,122	120,078	2,034	3,408	70	250	127	648
1967	66,489	146,354	2,328	6,019	150	577	119	851
1968	68,403	156,899	2,408	5,327	128	500	130	931
1969	62,528	152,122	2,279	5,199	124	468	124	894
1970	56,998	149,380	2,132	5,382	133	492	141	1,011

NOTE: The reference date of poultry population on farms from 1960 to 1966 is March 1, and January 1 for the year 1967 to 1970.

Sources: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

The duck estimate for 1970 was 2,132 thousand, or a decrease of 6.4 percent from the previous year's estimate of 2,279 thousand. About 86.3 percent of 1970 duck population was on small farms and 13.7 percent, on large farms. The duck inventory value for 1970 exceeded the previous year's value of P5,199 thousand by about 3.5 percent. There was an increase of 5.5 percent in the production of ducks eggs in 1969 compared with the total production of 83,064,400 duck eggs in 1968.

On the 1970 estimate of 56,999 thousand chickens, 91.9 percent was accounted for by small farms and 8.1 percent, by large farms. The chicken population in 1970, however, was 8.8 percent less than the previous year's inventory. Chicken egg production of 1,522,332,600 in 1969 was reduced by about 10.9 percent in 1970. Owing to the increasing demand, further development of livestock and dairy farming is necessary. A large increase in the number of milk cows and hogs is seen while other livestock for labor, such as horses, have decreased owing to the modernization of land cultivation. At present the revenue from sale livestock accounts for 24 percent of the total agricultural receipts of Philippine farmers.

## CHAPTER XII — FORESTRY

The Philippines is one of the few fortunate countries blessed with rich forest resources. Under proper management the forest gives a continuous yield of logs, lumber, and other forest products which provide income to the government and the private sector. Thousands of workers are engaged in the wood industry; they in turn support members of their respective families; thus the forest plays a vital role in the lives of a great percentage of the population. Furthermore, our forest products make up a primary export group which is one of the top dollar earners for the national economy. Added to these, our forest products provide the essential materials for the construction of dwelling units and commercial buildings and for the manufacture of furniture, fixtures, and other woodcrafts.

Imagine the Philippines without the forest and how a great many people will live in poverty owing to unemployment. Imagine, too, how this situation will adversely affect the entire economy. Observe how fast the soil will erode, feel the inconvenience of a shortage in water supply during the hot summer months, and contemplate the destructive floods during the rainy season. Appreciate the fresh, revitalizing atmosphere the forest provides rather than the air polluted environment in our cities; then do something to conserve our forest.

### FOREST RESOURCES

The rich forest resources of the Philippines consist of forest lands, timber, minor forest products, wildlife and game sanctuaries.

About 3,800 different wood species thrive in Philippine forests. Of these about 3,500 are indigenous or native and 300 are exotic or are of foreign origin. However, only about 100 species are handled by loggers, wood exporters and industrialists because the chemical, mechanical and physical properties of most of our timber, species have not yet been thoroughly studied.

Timber is the major product of the forest. It is the standing tree that produces wood for construction and for the industries which are dependent on wood for raw materials. The logs, lumber, plywood, and veneer which comprise our primary exports come from timber.

Our minor forest products include all other forest products of minor importance, such as firewood, charcoal, split and unsplit rattan, Manila copal, nipa, tanbarks and dye-barks, buri, bojós and bamboo, and also resins. Most of these materials are widely used in the manufacture of native articles such as bags, mats, baskets and traps, which are not only used locally but also exported to foreign countries.

The game animals in the forest like the deer, tamaraw, wild pig, etc., the game birds like the monkey-eating eagle, pigeons, wild ducks, snipes, doves, etc., and the protected insect-eating birds and song birds make up our wildlife. Rare species of birds and animals such as the monkey-eating eagle of Mindanao, the mousedeer of Palawan, and the tamaraws, of Mindoro have aroused the interest of foreigners as well as of our own citizens.

Pastures, tree farms, logpond sites, sawmill sites, timber depots and saltworks are some of the purposes which our forest lands serve. Areas of one hectare or more which are at least 10 percent stocked with forest trees (including seedling and sapling), wild palm, bamboo or brush are considered as forest lands. Narrow strips of land bearing forests must be at least 60 meters wide and one hectare in size to qualify as a forest land.

In 1968 the forest area was 16,663,090 hectares and this decreased to 16,085,260 hectares in 1969 and then dropped to 15,898,899 hectares in 1970. While the forest area has been decreasing, the non-forest area absorbs these area increases such that its proportion of 44.46 percent to the total land area in 1968 has increased to 47 percent in 1970.

The remarkable increase in population and the mobility of the cultural minorities whose tendency is to shy away from civilization has driven the people to clear out forest areas for agricultural and settlement purposes, thereby accounting for a great percentage of the decreases in forest lands. With the population still expected to increase in the next three decades and with the current birth and death rates, the forest area is very likely to experience a marked decline during the coming years.

Our forest resources are distributed over 15,898,899 hectares, of which 8,673,179 hectares are commercial forest (forest areas containing a volume of not less than 30 cubic meters of timber per hectare which could be profitably operated or logged), and the rest are non-commercial. The commercial forests are largely concentrated in Mindanao, with a little more than 50 percent of the total commercial forest area.

Table XII.1 - VEGETATIVE COVER OF THE PHILIPPINES: 1968, 1969 AND 1970

Land Use	1968		1969		1970	
	Area in Hectares	Percent- age of total area*	Area in Hectares	Percent- age of total area*	Area in Hectares	Percent- age of total area*
Total Land Area	30,000,000	100.00	30,000,000	100.00	30,000,000	100.00
Forest Area	16,663,090	55.54	16,085,260	53.62	15,898,899	53.00
Productive	14,482,690	48.28	14,300,688	47.67	14,114,327	47.05
Unproductive	2,180,400	7.27	1,784,572	5.95	1,784,572	5.95
Non-forest Area	13,336,910	44.46	13,914,740	46.38	14,101,101	47.00
Open grassland	3,131,420	10.44	3,601,117	12.00	3,486,144	11.62
Marshes	178,990	.60	217,749	.73	214,830	.72
Cultivated and others	10,026,500	33.42	10,095,874	33.65	10,400,127	34.67

\* Details do not necessarily add up to totals due to rounding.

Source: Philippine Forestry Statistics, Bureau of Forestry.

With more than half of the total area of the Philippines under forest cover as of 1970, only 10,400,127 hectares, or 35 percent, is classified as cultivated and other lands. <sup>1/</sup>Cogon or open grassland make up 12 percent while the marshes and swamps form a meager 0.72 percent of the total land area.

Our forest lands appear to be concentrated in the geographical regions of Mindanao and Luzon as shown in Table XII.2. About 39 percent is in Mindanao while approximately 38 percent, in Luzon. While Palawan has only 8 percent of our forest lands, this forms about 90 percent of its total land area. Luzon has about half of its area under forest cover while Mindanao has 61 percent of its area classified as forest lands. The 15 percent share of the Visayas region forms only about 39 percent of its total area. Visayas is therefore the only region with more than half of its land area classified as non-forest.

While Visayas has the least forest area, only about 9 percent of its forest is unproductive. Of the total unproductive forest of 1,784,572 hectares, which form 11 percent of the total forest area, about 52 percent is concentrated in Luzon. Mindanao and Palawan have an almost equal share of approximately 20 percent.

1/ Includes agricultural lands, fishponds, areas occupied by cities, towns, suburban communities, industrial sites, airfields, quarries, beaches, barren dunes, exposed rocks, and others.

Table XII.2 - VEGETATIVE COVER OF THE PHILIPPINES BY GEOGRAPHICAL REGION, AS OF JUNE 30, 1970  
(In hectares)

Geographical Region	Grand Total	Total	Forest				Total	Non-Forest		
			Commercial		Non-Commercial			Open and Grasslands	Marshes	Cultivated and Others
			Old Growth	Young Growth	Reproductive	Unproductive				
Philippines	30,000,000	15,898,899	5,010,796	3,662,363	5,441,148	1,784,572	14,101,101	3,486,144	214,830	10,400,427
Mindanao	10,199,882	6,197,884	2,200,055	2,167,294	1,473,774	356,761	4,001,999	942,905	79,000	2,980,093
Palawan	1,489,626	1,339,660	549,682	121,348	322,648	345,982	149,966	68,817	2,598	78,551
Luzon	12,109,508	6,014,966	1,555,796	1,058,298	2,476,327	924,545	6,094,542	1,396,086	91,580	4,607,076
Visayas	6,200,984	2,346,389	705,263	515,443	1,168,399	157,284	3,854,595	1,078,336	41,852	2,734,407
Probable Accretion	100.00	52.99	16.70	12.21	18.41	5.94	47.01	11.62	0.72	34.67

Source: Philippine Forestry Statistics, Bureau of Forestry.

## Forest Types

The topography of the regions of the Philippines varies from steep ridges and deep gorges to plains and rising peaks. This has somehow affected the life and growth of our forest resources. With a particular environment affecting the composition of the stands, the forest of the Philippines has been classified into the dipterocarp type, molave type, pine type, mangrove type, midmountain and mossy type, and beach type.

The dipterocarp family predominates over the timber species. It is the main source of the country's wood supply, with white lauan, red lauan, tangile, mayapis, apitong, yakal and guyo being its predominating species. These species thrive under varied conditions, from moist valley bottoms to hilly or mountainous parts, except areas of high altitude.

The molave type thrives on dry limestone ridges and in regions where there are distinct wet and dry season. This is more open than the dipterocarp type and the volume of timber per unit area is much less. Most of the species produce wood which are highly valuable for their natural beauty and durability, among which are narra, molave, tindalo, akle, and banuyo.

Found in the areas of high altitude in the mountainous regions of Northern Luzon is the pine type. Characterized by an open and scattered stand, this type is a potential source of turpentine. The principal species is the Benguet pine (*Pinus insularis*), which is one of the major reforestation species.

Firewood, tanbarks, cutch, dyewood, and charcoal are traced from the mangrove species, some of which are the bakawan, busain, pototan, langarai, and dungon late. These are found on tidal flats at the mouths of streams and on the shores of sheltered bays.

Essentially protection forest, the mid-mountain and mossy type is found on high and very rough mountainous regions. These trees are mostly dwarf because of too much exposure to strong winds. Among the tree species under this type are the makaasim, malaalmaciga, malakawayan, and malabayabas.

The beach type consists principally of the talisai, dapdap, palomaris, agoho, buri, and tawalis. This type thrives in sandy beaches above the high tide line.

Of the different forest types mentioned, the dipterocarp type thrives in 85.61 percent of our total forest area. Mindanao, which has 92 percent of its forest area covered by the dipterocarp type, claims about 42 percent of the total dipterocarp area. The other geographical regions of the Philippines generally have more than 70 percent of their forest areas covered with the dipterocarp type: approximately 71.80 and 90 percent of the total areas of Palawan, Luzon and Visayas, respectively.

The pine type covers only 1.36 percent of the Philippine forest area, being concentrated wholly in Luzon. The mangrove type claims 1.81 percent of the total forest area, more than 40 percent of which is concentrated in Mindanao as shown in Table XII.3.

Table - XII . 3 - PERCENT DISTRIBUTION AND FOREST AREA OF THE PHILIPPINES BY TYPE  
AND GEOGRAPHICAL REGION, AS OF JUNE 30, 1970

(Area in hectares)

Geographical Region	Total	Dipte- rocarp *	Pine	Mangrove	'Mossy and/ or un- 'productive'	Percent Distri- bution
Philippines	<u>15,898,899</u>	<u>13,610,655</u>	<u>215,637</u>	<u>288,035</u>	<u>1,784,572</u>	<u>100.00</u>
Mindanao .....	6,197,884	5,717,543	-	123,580	356,761	38.98
Palawan .....	1,339,660	949,252	-	44,426	345,982	8.43
Luzon .....	6,014,966	4,832,580	215,637	42,204	924,545	37.83
Visayas	2,346,389	2,111,280	-	77,825	157,284	14.76
Percent distribution	100.00	85.61	1.36	1.81	11.22	-

\* Includes Molave type which is scarce.

Source: Bureau of Forestry, Philippine Forestry Statistics.

As of June 1970, the forest of the Philippines is estimated to have more than 1.9 billion cubic meters of timber, with trees having a diameter greater than 20 centimeters. About 96 percent of these trees are productive, of which 99 percent fall under the dipterocarp type.

As expected, Mindanao having the biggest forest area has the most number of trees. It accounts for about 54.4 percent of the estimated volume of trees in the Philippines. Luzon ranks second, with 540 million cubic meters, or 28 percent. Visayas and Palawan have less than 10 percent each of the total volume of trees; 9.9 percent and 7.8 percent, respectively.

Table XII.4—VOLUME OF TREES 20 CM. AND OVER IN DIAMETER BY FOREST TYPE AND STAND SIZE BY GEOGRAPHICAL REGION, AS OF JUNE, 1970

Forest Type and Stand Size	Geographical Region					Percent Distribution
	Philippines	Mindanao	Palawan	Luzon	Visayas	
Total	<u>1,937,047.9</u>	<u>1,053,536.2</u>	<u>151,686.3</u>	<u>540,324.9</u>	<u>192,100.5</u>	
I. Productive	<u>1,857,801.0</u>	<u>1,032,494.4</u>	<u>128,159.6</u>	<u>511,032.8</u>	<u>186,114.2</u>	<u>95.91</u>
A. Dipterocarp type	<u>1,833,026.9</u>	<u>1,028,516.3</u>	<u>123,915.6</u>	<u>495,208.9</u>	<u>185,386.1</u>	<u>94.63</u>
1. Reproductive Bush	87,608.2	36,805.5	4,329.6	29,881.4	16,591.7	4.52
2. Young Growth	407,350.8	271,871.9	10,337.2	86,397.8	38,743.9	21.05
3. Old Growth	1,338,067.9	719,838.9	109,248.8	378,929.7	130,050.5	69.08
B. Mangrove Type	<u>2,776.5</u>	<u>3,978.1</u>	<u>4,244.0</u>	<u>826.3</u>	<u>728.1</u>	<u>0.51</u>
1. Reproductive Bush	1,595.6	262.1	397.5	267.6	668.4	0.08
2. Young Growth	6,122.7	3,039.5	2,464.8	558.7	59.7	0.32
3. Old Growth	2,058.2	676.5	1,381.7	-	-	0.11
C. Pine	<u>14,927.6</u>	-	-	<u>14,927.6</u>	-	<u>0.77</u>
II. Unproductive	<u>79,246.9</u>	<u>21,041.8</u>	<u>22,926.7</u>	<u>29,292.1</u>	<u>5,986.3</u>	<u>4.09</u>
1. Dipterocarp	65,607.8	15,946.3	16,729.5	27,263.2	5,668.8	3.39
2. Mossy	13,639.1	5,095.5	6,197.2	2,028.9	317.5	0.70
Percent Distribution	100.00	54.39	7.80	27.89	9.92	

Source: Bureau of Forestry, Philippine Forestry Statistics.

## WOOD PRODUCTION AND ALLIED INDUSTRIES

The rich forest resources of the Philippines have enabled the people to engage in industries which depend on wood for raw materials. The area of forest lands under license has been increasing on the average of 409,646 hectares annually, with the log production experiencing the same trend but with an average annual increase of 511,387 cubic meters. The period 1958 to 1970 has exhibited less actual log production than the allowable cut. Only an average of 7,925,483 cubic meters of logs was produced during the period, out of the average allowable cut of 10,001,027 cubic meters. In other words, there is still room for expansion in the forest industries.

**Table XII.5—AREA UNDER LICENSE, ALLOWABLE GRANTED, ACTUAL PRODUCTION AND POTENTIAL CUT, FY 1959-1970**

Fiscal Year	Area (Hectares)	Allowable cut (cubic meters)	Actual log Production (cubic meters)	Potential cut (cubic meters)
1958-59	4,664,693	7,210,567	5,451,636	15,000,000
1959-60	4,485,201	7,486,120	6,314,737	15,000,000
1960-61	5,552,844	8,739,367	6,596,455	15,000,000
1961-62	6,564,412	8,721,782	6,771,781	15,000,000
1962-63	6,604,058	10,129,188	7,668,078	15,000,000
1963-64	7,928,477	11,018,814	6,536,115	15,000,000
1964-65	4,441,224	6,149,446	6,174,641	15,000,000
1965-66	6,745,269	9,358,980	8,047,148	15,000,000
1966-67	8,302,223	10,899,166	7,843,283	15,000,000
1967-68	8,334,776	11,603,130	11,113,650	15,000,000
1968-69	8,979,400	13,204,717	11,583,713	15,000,000
1969-70	9,356,680	15,491,047	11,004,564	15,000,000

Source: Bureau of Forestry, Philippine Forestry Statistics.

Mindanao accounts for a major supply of timber, lumber, plywood and veneer which constitute the main forest products, as shown in the Table XII.6. These forest products have not only served local needs but have also met foreign demand. A substantial part of the production of these forest products is exported, thus providing substantial revenues to the economy. The rest of the production serves the local needs for housing and construction. With the boom in the construction of residential and commercial buildings owing to the needs of the increasing population, continued growth in the demand for these products is expected to occur.

Table XII.6—PRODUCTION OF LOGS, LUMBER, PLYWOOD AND VENEER BY GEOGRAPHICAL REGION, FY 1969 - 1970

Geographical Region	Logs (in cubic meters)	Lumber (in bd. ft.)	Plywood <sup>1/</sup> (in sq. ft.)	Veneer <sup>2/</sup> (in sq. ft.)
Philippines	<u>11,004,564</u>	<u>568,419,950</u>	<u>578,047,656</u>	<u>305,272,917</u>
Mindanao	8,301,819	242,491,867	571,634,444	305,279,917
Palawan	51,345	1,355,761	- ...	- ...
Luzon	1,528,917	264,137,917	- ...	-
Visayas	1,122,483	60,434,405	6,413,212	-

<sup>1/</sup> Only 15 mills with an annual capacity of 907,200,000 sq. ft. reported production.

<sup>2/</sup> Only 10 mills with an annual capacity of 516,600,000 sq. ft. reported production.

... None.

- No report.

Source: Bureau of Forestry, Philippine Forestry Statistics.

Wood processing plants such as sawmills, plywood mills, and veneer mills have been established in an effort to process and manufacture other wood products for export to foreign markets. As of June 1970, there are reportedly 352 sawmills, 35 plywood mills, and 19 veneer mills as shown in Table XII.7.

The amount of investments required to put up these processing plants has been the biggest drawback suffered by the loggers. The seven per cent sales tax imposed on logs, lumber, and other forest products sold locally for further processing increases the cost of production and cuts down profits thus negating the Government's efforts to encourage the wood industry.

The Government policy permitting the establishment of processing plants even for small concession areas resulted in the establishment of small plywood and veneer plants which were later forced to fold up owing to the limited raw material base. The Local Autonomy Act which entitles local governments to participate in the benefits derived from the utilization of forest resources led to the passage of ordinances by municipal governments imposing unreasonable fees on the operation of sawmills or log pond sites, for the enjoyment of roads right of way, etc. Furthermore, present policies pose the difficulty of securing foreign exchange which the wood industry needs to replenish necessary operational supplies, machinery, and equipment. These are indeed roadblocks to the development of a rational wood industry.



Table XII.7 - NUMBER, CAPACITY AND CAPITAL INVESTED IN SAWMILLS, PLYWOOD AND VENEER MILLS BY REGION, AS OF JUNE 30, 1970

Geographical Region	Number	Sawmills <sup>1/</sup>		Number	Flywood mills <sup>2/</sup>		Number	Veneer mills <sup>3/</sup>	
		Annual Capacity (M. bd. ft.)	Capital Invested (pesos)		Daily capacity (1,000 sq. ft.)	Capital invested (thous. sand pesos)		Daily capacity (1,000 sq. ft.)	Capital invested (thous. sand pesos)
Philippines	352	2,267,400	166,839,346	35	6,576	66,703	19	3,086	25,605
Mindanao	117	804,600	90,948,986	22	4,928	49,158	15	2,622	22,645
Palawan	3	6,600	604,956	-	-	-	-	-	-
Luzon	194	1,229,100	46,051,137	10	1,216	16,545	4	464	2,960
Visayas	38	227,100	29,234,267	3	432	1,000	-	-	-

<sup>1/</sup> Includes only the active mills. Annual capacity based on 300 working days.

<sup>2/</sup> Includes pre-finish plywood mills.

<sup>3/</sup> Includes rotary veneer mills and sliced-veneer mills.

Note: For plywood and veneer mills, 22 firms did not report their capital investment.

Source: Bureau of Forestry, Philippine Forestry Statistics.

## Exportation of Forest Products

In 1970 the wood processing plants processed only 22 percent of the total timber production. The balance of 78 percent was exported as round logs, a great percentage of which was shipped to Japan. Foreign trade statistics show that Japan is the biggest buyer of our forest products. During the year 1969 it absorbed 65.70 percent of our export of forest products valued at more than 185 million dollars. The amount of Philippine exports to Japan further increased to \$192,392,297 in 1970, or an increase of 3.85 percent over that of the previous year.

The United States which has been absorbing a great bulk of our total exports purchased only 15.64 percent of the total value of our forest products export, or an amount equivalent to \$44,125,169 in 1969. This value decreased by 16.17 percent in 1970, or an export equivalent to \$36,986,065.

The Republic of Korea and the Republic of China are promising markets for our exports. In 1969 the values of their exports amounted to \$21,730,659 and \$13,993,151, with Korea getting the greater share. Increases of 11.93 percent and 35.50 percent, relative to the previous year's exports, were exhibited by Korea and China, respectively, as shown in Table XII.8.

A major portion of our exports of forest products consists of timber, lumber, and plywood while veneer constitutes only a small portion of our exports, as compared to timber from fiscal year 1954-55 to 1969-70 as shown in the following tables. Our exports of these products during the latter years show a great percentage of total production being shipped out, leaving less than half for local consumption. However, lumber proves to be an exemption, with about 90 percent of the total production absorbed by the local market.

Table XII.8 - VALUE OF EXPORTS OF FOREST PRODUCTS\*,  
BY COUNTRY, 1969 - 1970  
(FOB Value in U.S. Dollars)

C o u n t r y	1 9 6 9	1 9 7 0
Total	<u>281,965,931</u>	<u>289,164,117</u>
Japan	185,255,938	192,392,297
United States	44,125,269	36,986,065
Republic of Korea	21,730,659	24,324,899
Republic of China	13,993,151	18,961,845
Hongkong	3,872,817	5,899,700
Okinawa	3,080,246	2,652,875
Australia	1,466,453	2,089,065
Republic of South Africa	964,000	1,396,519
Italy	1,910,602	1,271,000
Denmark	1,328,613	1,003,045
France	2,820,250	561,790
Canada	223,508	271,195
United Kingdom	63,668	256,719
Hawaii	192,986	160,749
Guam	68,446	156,618
Liechtenstein	400,921	132,308
Netherlands	8,083	114,263
Other U.S. Insular Possessions	7,009	102,544
Israel	46,875	85,250
Belgium	43,248	82,252
Indonesia	-	78,785
Federal Republic of Germany	271,294	56,895
Pakistan	-	29,960
New Zealand	59,130	27,782
Jamaica	20,691	26,401
Sweden	846	19,689
Republic of Vietnam	1,465	12,432
Norway	-	6,340
Portuguese Africa	-	2,220
Spain	2,500	1,890
Singapore	-	1,725
Puerto Rico	3,426	-
Ireland	3,390	-
Thailand	427	-

\* Includes logs, lumber, plywood and veneer.

Source: Foreign Trade Division, Bureau of the Census and Statistics.

**Table XII.9—TIMBER PRODUCTION, QUANTITY AND VALUE OF EXPORT,  
FY 1954-1955 TO FY 1969-1970**

Fiscal Year	Production (cu. m.)	E x p o r t <sup>1/</sup>		
		Volume (cu. m.)	Value (thousand P)	Percentage to total production
1954-1955	3,802,287	1,352,429	58,201	35.57
1955-1956	4,303,695	1,493,061	66,811	34.69
1956-1957	4,631,209	1,941,653	79,809	41.93
1957-1958	4,825,742	2,100,651	80,891	43.53
1958-1959	5,451,636	3,026,768	107,465	55.52
1959-1960	6,314,737	3,403,979	150,331	53.91
1960-1961	6,596,458	3,028,020	141,820	45.90
1961-1962	6,771,781	3,749,087	215,798	55.36
1962-1963	7,668,078	4,593,485	429,628	59.90
1963-1964	6,536,115	4,542,505	429,384	69.50
1964-1965	6,175,142	3,486,646	319,570	56.46
1965-1966	8,047,148	5,534,375	474,378	68.77
1966-1967	7,843,283	6,648,531	608,941	84.77
1967-1968	11,113,650	7,510,956	666,410	67.58
1968-1969	11,583,713	8,649,021	903,997	74.67
1969-1970	11,004,564	8,616,078	1,293,996	78.30

<sup>1/</sup> Export figures differ from those presented in Chapter XXII, Foreign Trade, due to differences in valuation period.

Note: Non-dipterocarp species constitute about 2 percent of total timber production. Pine timber is not being exported.

Source: Bureau of Forestry, Philippine Forestry Statistics.

**Table XII.10—LUMBER PRODUCTION, QUANTITY AND VALUE OF EXPORT, FY 1955-1956 TO FY 1969-1970**

Fiscal Year	Production (1,000 board feet)	Export <sup>1/</sup>		
		Quantity (1,000 board feet)	Value (thousand pesos)	Percent
1955-56	378,935	51,162	11,087	13.50
1956-57	479,137	57,727	14,446	12.05
1957-58	499,258	61,617	15,597	12.34
1958-59	433,714	61,890	15,903	14.27
1959-60	384,227	47,884	14,239	12.46
1960-61	441,286	41,787	11,169	9.47
1961-62	406,073	41,116	12,435	10.13
1962-63	482,047	38,475	16,836	7.98
1963-64	499,942	39,068	19,237	7.81
1964-65	531,413	34,756	16,892	6.54
1965-66	375,881	33,713	17,826	8.97
1966-67	322,220	43,848	24,559	13.61
1967-68	432,921	43,449	23,733	10.04
1968-69	620,976	71,017	39,394	11.44
1969-70	568,420	59,490	54,504	10.47

<sup>1/</sup> Export figures differ from those presented in Chapter XXII, Foreign Trade, due to difference in valuation period.

Source: Bureau of Forestry, Philippine Forestry Statistics.

**Table XII.11—PLYWOOD PRODUCTION, QUANTITY AND VALUE OF EXPORT, FY 1954-1955 TO FY 1969-1970**

Fiscal Year	Production (1,000 square feet)	Export <sup>1/</sup>		
		Quantity (1,000 square feet)	Value (thousand pesos)	Percent
1954-55	81,369	4,034	616	4.96
1955-56	105,301	9,278	1,605	8.81
1956-57	135,204	24,854	3,629	18.38
1957-58	168,901	52,681	26,216	31.19
1958-59	298,290	182,421	22,242	61.16
1959-60	324,027	179,281	24,504	55.33
1960-61	260,308	111,641	12,044	42.89
1961-62	316,735	144,715	16,014	45.69
1962-63	400,325	194,462	33,616	48.58
1963-64	470,205	401,702	75,678	85.43
1964-65	597,427	323,375	63,941	54.13
1965-66	540,209	206,178	42,274	38.17
1966-67	521,915	293,004	57,104	56.14
1967-68	695,034	429,935	73,291	61.86
1968-69	523,866	330,498	53,123	63.09
1969-70	578,048 <sup>1/</sup>	241,696	86,156	-

<sup>1/</sup> Only 15 mills with an annual capacity of 907,200,000 sq. ft. reported production.

Source: Bureau of Forestry, Philippine Forestry Statistics.

Table XII.12 - VENEER PRODUCTION, QUANTITY AND VALUE OF EXPORT,  
FY 1954-1955 TO FY 1969-1970

Fiscal Year	Production (1,000 sq. ft.)	E x p o r t <sup>1/</sup>		
		Quantity (1,000 sq. ft.)	Value (thousand pesos)	Per cent
1954-55	126,541	12,804	499	10.12
1955-56	197,712	49,294	1,906	24.93
1956-57	204,892	63,087	2,440	30.79
1957-58	295,920	76,657	3,096	25.90
1958-59	453,775	140,279	5,426	30.91
1959-60	254,231	214,056	7,806	84.20
1960-61	239,481	224,657	7,875	93.81
1961-62	398,928	251,800	8,476	63.12
1962-63	738,245	337,014	24,499	45.65
1963-64	609,679	446,184	31,529	73.18
1964-65	742,327	530,024	37,420	71.40
1965-66	785,731	379,010	23,016	48.24
1966-67	831,000	451,443	29,360	54.33
1967-68	1,205,910	558,267	31,343	46.29
1968-69	627,221	541,150	41,033	86.28
1969-70	**	577,452	42,012	-

<sup>1/</sup> Export figures differ from those presented in Chapter XXII, Foreign Trade, due to difference in valuation period.

\*\* Reported production still incomplete.

Source: Bureau of Forestry, Philippine Forestry Statistics.

Asian wood-producing countries have been beset by the problems of low prices, high shipping costs, production difficulties, and others, and the Philippines is no exception. These circumstances led the prices for wood products to be determined, not by the log supplying countries, but by the consumer nations. High shipping cost is attributable to the almost total dependence of the wood industry on foreign bottoms to ship its export products. Philippine bottoms constitute only five percent of the total sailings from Philippine ports, thus putting the country at a competitive disadvantage in the international wood markets.

The problem of a worldwide economic recession which triggered a decrease in the demand for wood products, especially in the rich markets of Japan and the United States, confronts our log exports. This has led to the stopping of operations and laying off of several hundreds of personnel in logging companies. Logging outfits in Mindanao and Northern Luzon have slowed down their operations and they have stopped purchase orders for new heavy equipment. The entry of Indonesia as a cheap source of logs in Southeast Asia further complicates the problem of Philippine log exports. The higher price of Philippine logs, the higher cost on local mahogany, plus the difficulty of finding big bottoms for shipping, would logically make Japan shift to Indonesia for its supply of logs.

The termination of the Laurel-Langley agreement on July 3, 1974, will definitely eliminate the trade preferences in the United States now enjoyed by the Philippine wood industry. If the Philippine forest and wood products industry is to survive these market difficulties, it would be wise to develop new markets at this stage. This endeavor would require the joint efforts of the government and the private sector. New markets have already been found in Hongkong, Guam, Australia, Africa, and Europe for our lumber and plywood. Our local market should also be developed for this would provide the biggest marketing outlet for our wood products, particularly the building industry. Housing by both the private and government sectors, non-residential construction, and infra-structure projects of the government could very well provide a good market for our forest and wood-products.

The Export Incentives Act of 1970 (RA 6135) provides incentives for the export of such wood products as caskets, carvings, pallets, parquet tiles, bamboo products, gun stocks, cabinets, mouldings, doors, and fixtures, furniture and components, boxes and crates, and black-board and pulp, all of which would provide stimulus for the expansion of the wood industry.

## Wood Pulp and Paper Manufacture

Included among the vital forest industries is the paper industry. Wood pulp has been used in the manufacture of paper. The Bataan Pulp and Paper Mill, for instance, has been designed to utilize *bobo* (a bamboo variety) in the manufacture of paper, but the supply of this particular forest product has been dwindling. This has resulted to the shift of the raw material for mill to the wood pulp. Among the firms engaged in the paper industry are: Paper Industries Corporation of the Philippines (PICOP), Rustan Pulp and Paper Mills, Abaca Pulp and Paper Industries of the Philippines Inc., United Pulp and Paper Co., Inc., and Bataan Pulp and Paper Mill. Among the firms which use abaca as principal raw material are: The Agricultural Fibers Development Corporation (AFDECO), Isareg Pulp and Paper Corporation, Abaca Pulp and Paper Industries of the Philippines Inc., and Menzi Development Corporation.

Majority of these mills utilize hardwood wastes coming from the branches and trunks of trees which they reduce to pulp for the making of paper. This resulted from the United States experiment on Philippine logs which showed that short fibers of the hardwoods have a closer formation or weave and thus provide a finer quality of paper, particularly for printing. The combination of short and long fibers was also found to produce stronger quality of newsprint.

It has also been established that practically all fibrous raw materials, such as bamboo, cotton, maguey, sugarcane bagasse, rice straw, coconut trunk, petiole or husks, wild abaca, or banana and many other plant materials are promising sources of various grades of paper. Normally, wood wastes from logging operations like stumps, large branches, and tree tops are left to rot in the woods. Milling wastes like trimmings, slabs, and sawdust are usually burned. Through the incentives contained in R.A. No. 6135 there are high hopes of utilizing these wood wastes and converting them into useful wood products. In addition to utilizing the wood wastes this would be an indirect way of conserving our dwindling timber stands.

The Paper Industries Corporation of the Philippines (PICOP) has initiated the move to use waste wood for paper making. It sent 3,000 tons of logs to the United States for experimental trials. In full operation, it will turn out 80,500 short tons of newsprint which is expected to supply 80 percent of all the newsprint required by Philippine newspapers and 70,000 short tons of kraft paper. Manufactured locally, paper produced by this mill and the rest are expected to have lower prices than those imported from Canada, the United States or Australia. It is therefore hoped that with the development of these mills our imports of paper, paperboard, and manufactures thereof amounting to 170,023,497 pesos in 1970 would be substantially reduced.

## MINOR FOREST PRODUCTS

While the dipterocarp, molave, and pine forest types are our principal sources of timber, the mangrove, midmountain aand mossy type and the beach type make up the minor forest products of the Philippines. Although the products from these types of forest are considered of minor importance, they have been the source of livelihood of thousands of families.

Mangrove or bakawan gatherers and charcoal makers are found mainly in the provinces of Zamboanga del Sur, Leyte and the Bicol Region. The increasing demand for bakawan firewood and charcoal by local bakeries and manufacturers of calcium carbide and ferroalloys have provided some incentives among the people engaged in mangrove farming.

Bakawan was discovered to yield the highest percentage of tannin from among several local wood species, such as camachile, ipil-ipil, mangachapui, kalumpit, and lauau. (Tannins are compounds found in varying amounts in the barks, leaves, flowers, fruits, stems and roots of certain trees). Extracts from the bark of bakawan trees are used in tanning animal hides and skins. The use of tannin as an ingredient in paper and textile manufacture, in distilleries,

and in paint and plastic manufacturing is remarkable. It has also been found to help make fishnets and fishtraps more durable. Tannins are also used to glue veneers into plywood and to clarify and age wines and other alcoholic beverages. It also plays a vital role in preventing the formation of rusts and in manufacturing insecticides.

Bakawan has also been used in making fashionable pieces of furniture. Bukbok and termites do not attack this particular type of wood because of the presence of a bitter and salty substance inside the wood. It is for these reasons that efforts are being made to preserve our mangrove forest, which is in the danger of being depleted because of the large-scale exports to Japan.

Aside from these remarkable uses, our minor forest products, such as bamboo and nipa, are commonly used in the construction of houses in the rural areas. Cottage industries have been utilizing most of our minor forest products as raw materials. Paper mills have been employing the use of boho, a bamboo variety, in the manufacture of bleached paper. Furthermore, the forest charges collected from the production of minor forest products and the revenues collected from the exports of these products help a lot in financing forestry programs. Unsplit rattan and shingle have accounted for the bulk of the production of our minor forest products. Firewood, unsplit rattan, charcoal, and almaciga have commanded high forest charges as compared to the rest. Although there have been decreases in the production of some of the minor forest products, these have been substantiated by corresponding increases in the other products, thereby leading to an increase in forest charges from P180,421 during the fiscal year 1968-69 to P206,206 during the fiscal year 1969-70.

**Table XII.13--PRODUCTION OF MINOR FOREST PRODUCTS AND CORRESPONDING FOREST CHARGES COLLECTED FY 1968-69 TO FY 1969-70**

Product	Unit	1968-1969		1969-1970	
		Quantity	Forest Charges (Pesos)	Quantity	Forest Charges (Pesos)
Total			180,393.75		206,206.09
Almaciga	Kilos	737,544	18,427.04	961,054	26,873.28
Anahao leaves	Pieces	93,000	50.50	100,100	65.05
Bamboo	Pieces	3,650	100.50	5,192	178.38
Boho	Pieces	372,850	1,636.13	384,295	2,296.43
Buri fiber	Kilos	210	105.00	100	50.00
Buri leaves	Kilos	91,138	1,010.76	28,600	355.75
Camachile	Kilos	20,000	100.00	-	-
Charcoal	Cu. M.	11,718	24,937.50	9,730	29,170.90
Dilliman	Kilos	37,659	2,107.97	30,175	1,553.13
Dyebark	Kilos	5,050	132.50	4,660	114.20
Firewood (M)	Cu. M.	121,687	51,215.72	151,037	62,996.18
Firewood (Up)	Cu. M.	24,900	8,668.36	27,830	7,931.23
Hingiv	Kilos	6,705	65.73	2,225	29.70
Lumbang Nut	Kilos	207,672	1,224.90	306,797	1,647.63
Manila Elemi	Kilos	169,153	3,383.06	241,229	4,824.60
Nipa Sap	Liters	62,500	39.90	600	3.60
Nipa Shingle	Kilos	1,495,743	4,225.03	1,400,400	4,402.15
Oleo Resin	Liters	10,715	635.75	3,550	177.50
Orchid	Pieces	428	106.73	576	107.85
Rattan Split	Kilos	313,205	16,931.75	305,133	15,980.02
Rattan Unsplit	Kilos	885,312	4,995.40	643,035	3,606.99
Tanbark	L.M.	8,569,339	40,293.52	10,321,175	43,841.52

Source: Bureau of Forestry, Philippine Forestry Statistics.

Our minor forest products also find their way to foreign markets. The quantity of minor forest products exported has been exhibiting notable increases. From 111.3 million kilos in 1968, which amounted to 1,845,258 dollars, the quantity of minor forest products exported increased to more than 226 million kilos, valued at 2,422,556 dollars in 1970. Fuelwood accounted for 98 percent of these exports in 1970, with its corresponding value forming about 57 percent of the total value of minor forest products exports.

Table XII.14 - EXPORTS OF MINOR FOREST PRODUCTS\*, CY 1968, 1969 AND 1970

Minor Forest Products	Unit	1968		1969		1970	
		Quantity	Value (\$)	Quantity	Value (\$)	Quantity	Value (\$)
Total	Kilo	111,287,681	1,845,258	160,415,442	1,812,096	226,042,293	2,422,556
Almaciga	"	910,904	231,021	1,118,273	273,214	932,429	246,198
Elemi	"	137,454	126,851	177,193	41,286	185,752	171,807
Rattan poles	"	2,202,687	644,626	1,786,135	538,837	2,008,334	607,064
Buri Braids	"	38,587	49,773	35,729	41,528	23,940	26,727
Fuel Wood	"	107,998,049	792,987	157,298,111	917,231	222,891,838	1,370,760

\* Value in FOB.

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines.

## FOREST DENUDATION AND ITS CONSEQUENCES

Although nature has successfully provided for the self-maintenance of the forest, we cannot expect it to remain unchanged through the years. The continuing cycle which is firmly grounded on the deep root systems developed by successive generations of different species, interacted upon by such complex factors as bacteria, fungi, termites and other animals that make up the forest, has permitted the forest to maintain itself. However, this cycle has been disturbed by the employment of shifting cultivation methods or kaingin, fires, squatting or unauthorized logging operations, leading to the denudation of our forests.

For the last ten years, our timber line has receded rapidly. Rain forests have been converted into cogon lands and the rivers have dried up owing to the destruction of sustaining watersheds. This process of resource destruction is quick and irreversible, and it would take centuries to develop the rain forests and establish the cycle that sustains them. Preventive measures must therefore be properly adopted to remove the root causes of this depletion.

The kaingin system, otherwise known as "shifting agriculture", has accounted for extensive damages to our forest resources. It has been employed in an effort to clear of areas under forest cover to small farming and settlement purposes, but it has destroyed thousands of cubic meters of forests. The rapidly expanding number of those engaged in "shifting agriculture" employ primitive farming practices which rapidly exhausted the natural fertility of the soil, leaving it a virtual wasteland. Furthermore, their burning activities often spread to adjoining forests, killing trees in an area much larger than that actually used for cultivation. This problem is further aggravated by the traditional land tenure system and the issuance of short-term timber licenses and special permits to previously surveyed forest areas. The methods which have been adopted to minimize the effects of the kaingin system have been preventive or negative in character. The positive or curative approach, which is based on a definite knowledge of the location of the kaingins and the extent of their destruction in particular areas, has remained neglected.

During the fiscal year 1969-1970 there were 3,686 cases detected which destroyed 3,775 hectares. Measured in terms of forest charges, the value of the forest products destroyed was estimated at P731,933.00. This destruction is made worse by the condition the kaingin-affected areas are left; its adverse effects on the mineral components of the soil impede plant growth. However, there is a high probability that these figures are underestimated inasmuch as many kaingins are beyond the reach of government foresters. Furthermore, the kaingeros have been under the protection of our politicians who shield them from the law and the local courts.



**Table XII.15 — Number and Area of Kaingin Detected with Corresponding Value of Forest Products Destroyed, 1955-1970**

Fiscal Year	Number of Cases Detected	Area in Hectares	Value of Forest Products destroyed (In pesos)*
1955-56	890	749	89,502
1956-57	2,486	2,340	380,567
1957-58	1,525	2,340	1,440
1958-59	1,608	1,849	74,444
1959-60	536	730	89,818
1960-61	320	504	64,113
1961-62	656	956	192,204
1962-63	2,512	1,675	1,400,262
1963-64	2,890	2,708	2,570,476
1964-65	840	941	525,241
1965-66	1,854	1,783	2,160,931
1966-67	721	331	169,790
1967-68	1,736	1,202	616,284
1968-69	1,796	1,346	386,626
1969-70	3,686	3,755	731,933

\* In term of forest charges.

Source: Philippine Forestry Statistics, Bureau of Forestry.

Squatting in public forests caused by the increasing population has been an obstacle to the orderly management of public forests. Cultural minorities who are entitled under R. A. 3872 to acquire title to lands even inside permanent forests give rise to conflicts which either halt operations or require costly financial settlements. Although these people have no legal rights to the land they are living on, their human needs are real. Economic pressures compounded by the failure of the government to enforce the laws governing the occupancy of the forests have led to their being squatters.

A forest catastrophe which can cripple or devastate an entire forest is a forest fire. This has been a major problem particularly in the pine region during the dry season. Although some countries such as Australia have adopted controlled burning to prevent forest fires, the Philippines has not yet adopted similar measures to counteract this problem.

Logging has been popularly connoted with forest depletion. But the evil in logging is determined by the system employed, either selective or destructive. Selective logging employs the cutting of mature trees, leaving the young healthy trees uninjured and thus allowing them to mature as timber in the next harvest. With the old dominant trees gone, the young trees are now liberated and given space and sunlight, and in the process they grow fast. Experts say that a hectare of virgin forest selectively logged can regenerate wood at an average of 7 cubic meters per year.

Destructive logging, on the other hand, destroys a forest. It will take nature 50 years or even a century to transform the despoiled forest back to a good timberland. Unlike the kaingin areas, however, a destructively logged-over area has a good vegetation base which is conducive to start a new forest area. The report and recommendations of the Presidential Committee on Wood Industries Development (PCWID) states that illegal loggers destroy forests at a rate of 30,000 hectares a year while kaingeros about 80,000 hectares per year. If this rate will hold true onwards, it would not be surprising if after a span of years our forests will be completely denuded.

## THE PHILIPPINE FORESTRY PROGRAM

The conservation of our forests is inseparable from the orderly management and development of our forests resources. To this end, the Bureau of Forestry, Reforestation Administration, and the Parks and Wildlife Office have been created.

The government effects its policy of maintaining the productivity of the forest at all times for the benefit of all generations through these agencies. By means of a wise and scientific forest management program, it aims to protect and conserve the forest and make its utilization economically profitable for this generation and the generations to come.

The Bureau of Forestry aims at the conservation of the existing forest through wise utilization, public domain classification, protection against forest vandals, enlightened grazing practices, application of the sustained yield principle, and the conduct of forest research. It exercises jurisdiction and authority over the demarcation, occupancy, use, protection, management, and natural reproduction of all public forests.

In the process of regulating the demarcation, occupancy, and use of forest lands, it grants licenses and permits for cutting, collecting, and removing any specific kind of forest product and issues permits or leases for special uses of forest lands for certain definite periods of time. To assure the best use of forest lands and the necessary balance of forest cover and open lands, it classifies public lands into timber lands and alienable or disposable areas as provided by law.

**Table XII.16 — Number of Timber Licenses, allowable Cut and Area Granted in the Philippines by Geographical Region, FY 1969-1970**

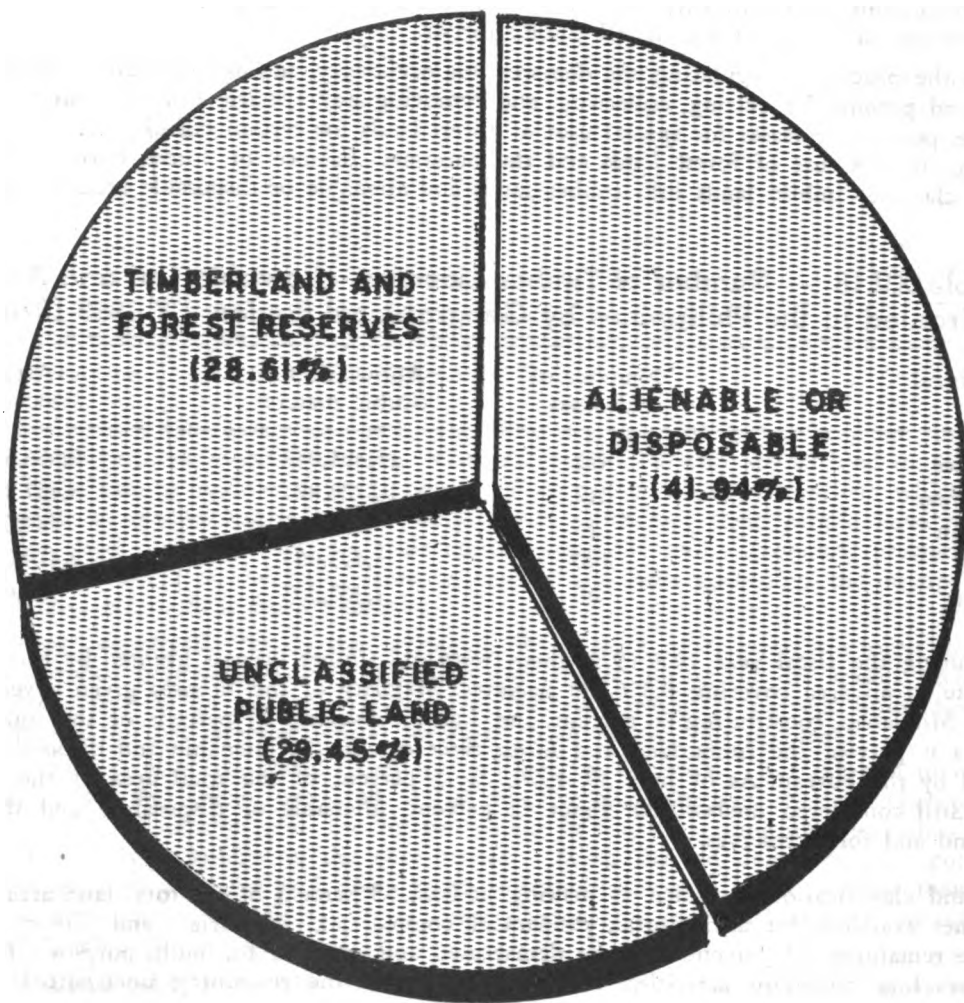
Geographical Region	Number of Licenses	Allowable Cut (Cubic meters)	Area (Hectares)
Philippines	412	15,491,047	9,356,680
Mindanao	212	10,226,824	5,457,292
Palawan	14	503,315	442,640
Luzon	140	3,493,005	2,474,095
Visayas	46	1,267,903	982,653

During the fiscal year 1969-1970, there were 412 timber licenses granted by the bureau to operate in an area covering 9,356,680 hectares. Majority of the licenses given covered the forest of Mindanao, constituting 66 percent, and Luzon, covering 23 percent of the total area. This area is part of the timberland and forest reserves and the alienable and disposable land classified by the bureau. As of June 30, 1970, 29.45 percent of the total area of the Philippines is still considered unclassified, about 42 percent, alienable or disposable, and the rest, timberland and forest reserves.

Land classification is aimed at making at least 58 percent of the total land area of the Philippines available for agricultural, residential, commercial, industrial and other related uses; the remaining 42 percent is to be demarcated and retained for multi-purpose forestry. It involves four phases of activities: the classification of the remaining unclassified regions of the country, the establishment and precise survey of the boundaries and the monumenting of the corners of permanent forests for proclamation as forest reserves pursuant to R.A. 3092, the establishment and survey of organized forest working units in line with Forestry Administrative Order No. 11-17, dated April 21, 1967, and the zonification of the country's mangrove swamps.

FIG. XII.1

# STATUS OF LAND CLASSIFICATION JUNE 30, 1970



SOURCE: BUREAU OF FORESTRY

Areas classified as timberland would be proclaimed as forest reserves, to be placed under proper forest management plan for wood production, watershed protection, soil conservation, and for multi-purpose forestry. On the other hand, those which could be certified and classified as not needed for forest purposes are to be dropped by the Bureau of Lands or Land Authority through the Land Bank, upon reservation by the President of the Philippines of such agricultural lands. The goal of the Bureau of Forestry is to classify at least 155,000 hectares of public forest. In the establishment of permanent forest boundaries, its objective is at least 750 kilometers.

To determine and classify land areas by use, forest type, and forest stand size, the bureau employs the use of aerial photographs. These are examined by their photo interpreters using mirror and pocket stereoscopes. The same method is used whenever forest inventories are conducted, aimed at knowing the nature and extent of our forest resources.

The slow rate of implementation of land classifications has deterred court action in land trespass proceedings, owing to the absence of a clearcut direction on land classification and proclamation. Court rulings and practices were based on the Krivenko Doctrine which establishes the presumption that all unclassified public lands are agricultural in character unless proven otherwise, thus aggravating destructive forestry practices, such as illegal logging, squatting, and kaingin-making.

In line with the Bureau's function of supervising and administering the occupancy and use of public forest lands, as well as determining their status, it undertakes activities related to land registration, forest claims, inspection and registration of private wood lands.

In order to carry out all activities relating to the forestry program of the government, the Philippines is divided into ten regional forest districts, each headed by a regional director directly responsible to the Director of Forestry. In addition to this, there are 60 district offices each headed by a District Forester.

The Reforestation Administration takes charge of narrowing the gap between reforestation and deforestation. It was created by virtue of Republic Act 2706, approved on June 19, 1960, out of the Reclamation and Reforestation Division of the Bureau of Forestry. With its creation, there had been notable increases in the total area reforested. Its primary concern is to bring about forest cover on all open denuded lands for the protection of watersheds, and to forest logged-over areas whose natural reproduction has been badly damaged. In addition to these, it helps promote the production of timber and other main forest products and raw materials; it raises planting materials, seeds, seedlings, and cutting for cooperative reforestation; and it establishes demonstration and/or community forest with the cooperation of the government and private entities.

While the Reforestation Administration takes charge of replenishing the forests by planting more trees, the Parks and Wildlife Office conserves the wildlife therein, including the birds, fishes, mammals, and other animals. It conserves the scenery and the natural and historic objects and provides ways and means of leaving them unimpaired for the benefit and enjoyment of future generations. It has declared hunting bans on all resident wildlife species and has cancelled existing logging permits covering areas inside national parks in order to effect their preservation.

These three forestry agencies—the Bureau of Forestry, the Reforestation Administration and the Parks and Wildlife Office — have the common objective of protecting and managing public lands according to basic conservation principles founded on biological and physical sciences. Each agency also carries to a certain degree all three functions of preservation, restoration, and utilization in their legislative charter. A proposal has been made to the Reorganization Commission to merge these agencies in order to achieve the consolidation of functions, objectives, problems and resources and to partly solve the problem of finances. This reorganization will also eliminate jurisdictional boundaries and problems, thereby increasing the ef-

fectiveness of both professional and sub-professional personnel. This is particularly true in the case of protection against fire, kaingins, and other forms of illegal occupancy and use. With the approval of this proposal an integrated forestry resource management is hoped to be achieved.

## Forest Protection

Forest protection and watershed management is effectively carried out by regulating the collection and utilization of timber and other forest products. This is aimed at perpetuating the supply of our forest resources while utilizing it to the optimum. The Bureau of Forestry implements the sustained yield management program based on selective logging. This involves such activities as tree marking, residual inventory, and timber stand improvement. Tree marking regulates cut and timber harvesting. It consists of the selection and consecutive numbering of the growing trees to be reserved as residual growing stock. The trees marked to be left should be at least 60 percent of the original number of healthy trees belonging to the 20 to 70 diameter groups, or it should not be 40 percent of the total stand depending upon the stand structure and size-class distribution. The marked residuals are physically examined and accounted for after the logging operations to determine their condition by a process known as residual inventory.

Timber stand improvement is aimed at maximizing the production capacity of the forest. It is the application of silviculture treatments on the stand to accelerate the growth of the desirable species and to improve the composition and quality of the growing stocks. It also includes the girdling or cutting of defective or undesirable species, including climbing vines that tend to hinder the growth of the desirable species, the planting of barren and denuded areas, and the supplemental planting of the denuded portion of the forest. The graph below shows the selective logging accomplishment of the Bureau of Forestry from FY 1959-1960 to FY 1969-1970, which employed the three activities mentioned earlier.

During the last decade the extent of the areas where selective logging was applied varied from year to year. The latter part of the decade, however, generally exhibited increases in the selective logging accomplishment of the bureau. Timber stand improvement was applied to as vast as 22,966 hectares during the fiscal year 1969-1970, realizing an increase of 53 percent over that of the previous year. It is expected that with the desirable results brought about by this project, areas of selective logging would increase.

To insure the source of timber supply under a sustained-yield basis and to promote the establishment and integration of wood industries, the Bureau integrated in its program the policy of having big and small timber concessions to renew their licenses. This is aimed at giving the investors incentive to integrate their operation and adopt measures to conserve the forest areas involved. In this connection, it saw to it that no new timber license shall be issued for commercial utilization. It further adopted the general policy of not granting additional cut, for it contributes to the rapid denudation of our forests of commercial value, except when the area from which the commercial timber may be cut has been declared alienable and disposable under the public land act and has been transferred to the Bureau of Lands for disposition. It then becomes imperative to make a 100 percent clearing of the land to make it suitable for agricultural purposes.

In an effort to solve the problems posed by the kaingin-makers illegal loggers, and forest squatters, the government has promulgated forest laws, rules and regulations. These measures impose punishments ranging from seizure of the illegally cut or gathered forest products to collection of forest charges, to fines and imprisonment.

The proposed forestry code drafted by the Presidential Committee in Wood Industries Development (PCWID) and the Planning and Evaluation Group of the Bureau of Forestry seeks to harmonize the existing forestry rules and regulations. If this attempt will find approval in Congress, a more integrated forestry program based on a scientific forestry code is hoped to be achieved.

## Watershed Management

In scientific forestry, water considered a product of the forest is as important to national development as timber. When properly controlled, it plays a vital role in sustaining man's requirement for domestic, industrial and hydro-electric purposes. On the other hand, when not controlled, water becomes a problem. Long drought has adverse effects on agriculture, and water shortage causes undue inconveniences among the people in the cities, towns, and developing communities. Floods cause the destruction of millions of life and valuable property.

The Bureau of Forestry sets up the foundations of national watershed management practices geared towards increasing the water supply to meet the demand of the rapidly growing population together with the rising standard of living. Realizing the effects of forest denudation on watershed areas, it does not issue timber license for areas which are critical watersheds or where irrigation system, multi-purpose projects, or sources of potable water are being planned. Its watershed management program includes the conservation of forest soil, water, forest range and wildlife resources; the maintenance and improvement of land productivity for crops, forest products, and livestock through proper land use and introduction of conservation farm practices; the increase and maintenance of water yield for domestic, irrigation or agricultural, industrial and hydro-electric purposes; and the protection of watershed areas and the establishment and adoption of proper flood control.

Under the United Nations Development Program for technical assistance, with the cooperation of the World Food Program, the Philippine government has undertaken certain activities in surveying, classifying, and rehabilitating watershed areas, preparing regulations relating to forest management, and conducting studies and research projects on erosion inside watershed areas.

Based on the report of the Reforestation Administration, there are now nine critical watershed areas in need of immediate reforestation works. These are the watersheds of hydro-electric plants which supply irrigation water to vast tracts of agricultural land. These watersheds are the Agno River basin, the Cagayan River basin, the Panay-Jalaur River basin, the Bicol watershed, the Allah River watershed in Cotabato, the Digos River watershed in Davao, the Manicahan River watershed in Zamboanga, and the Leyte watershed.

The Agno River watershed is the watershed of two hydro-electric power plants, the Ambuklao and Binga dams. These dams supply most of the country's electric power needs as well as irrigation water to agricultural lands in Benguet, Pangasinan, and Tarlac.

If the vegetative cover of the Pampanga river, which is now practically gone, would receive greater attention, the completion of the on-going construction of an irrigation dam in this river basin will supply the irrigation needs of Nueva Ecija, part of Pampanga, and Bulacan. Forest destruction in this river basin has caused floodwaters to come down from the mountain sides during rainy days. This has resulted in the destruction of millions of pesos worth of crops and property. The river and springs pouring into it also dry up during the summer months, affecting the irrigation complex.

The Cagayan River has many of its tributaries already denuded. Among these are the Maddela River in Nueva Vizcaya, the Chico River in Cagayan, the Alimit River in Ifugao, and the Luna River in Kalinga. Whenever these tributaries overflow, floods occur resulting to insufficient irrigation water during the dry season. This greatly affects the food production potential of the agricultural lands in the Cagayan Valley.

To control waterflow during the rainy season and increase low flow during summer, these denuded watersheds must be reforested.

## Reforestation Program

The Bureau of Forestry started the reforestation work in 1910. With the creation of the Reforestation Administration, there was a rapid increase in the total area reforested, although the area covered is still minimal in view of the vast expanse of water lands and open lands in need of reforestation.

Areas within critical watersheds and those which were once virgin forests but now denuded as a result of illegal kaingin, squatting, or burning are given priorities. Planting more trees is the surest way of maintaining the protective and productive value of forest lands. Furthermore, it insures a ready supply for the future demand for wood.

The Reforestation Administration is planting an area of 23,000 hectares annually. The alarming forest destruction has made it more determined to intensify its reforestation activities. Some of its reforestation projects are the Abra Reforestation project, a 6-hectare grassland planted with trees; the Magat Reforestation Project in Nueva Vizcaya, covered with different forest trees like teaks, mahogany, pine trees and other species that thrive best in this area of moderate climate; the Aganan Reforestation project; the Osmena Reforestation Project in Cebu, and many other similar projects.

The number of reforested projects has expanded from 47 to 79 in Luzon, 25 in Visayas, and 13 in Mindanao with six cooperative or production nurseries.

The Bureau of Forestry effects its reforestation program by giving the licensee the responsibility of planting the denuded areas. It provides for the planting of two trees for every tree cut or damaged, or the establishment of nurseries by the licensee.

The Paper Industries Corporation of the Philippines (PICOP) is a pulp and paper mill that has realized the value of replenishing the forests. It divided the forest into 35 sectors. One sector is cut within a year and another for the next year. The denuded sector is planted at once to new trees so that in a span of 35 years it will be ready for harvest.

Another such company is the Aras-asan Timber Company, (ARTIMCO). This company maintains a forest nursery near its planting area. The pressing need for seedling in its reforestation program has resulted to a three-hectare expansion of its forest nursery. Tradition requires visitors at the Artimco Nursery to plant a tree each.

Reforestation has been carried out at a relatively slow pace due to the lack of technical men, inadequacy of funds and equipment, the problem of squatting, political interference, non-coordination of forestry agencies, and forestry fires.

## Forest Research

Forest research is indispensable in implementing the scientific forest program of the Philippines. Research programs have to be carried out in the light of the reported excessive drain of the forest resources and the role our forest products play in the export market. The changing times require vigorous and sustained forest research studies to improve the quality of forest products. In the aspect of utilization, to insure perpetuation of the forest resources, research must complement management.

The Bureau of Forestry conducts forest research activities dealing mostly on silviculture, forest management, forest protection, economics of forest and forestry practices, ecology of the Philippine forest, and a few others. It has five forest research stations and fifteen substations strategically located all over the country. These experiment stations include the Baguio Forest Experiment Station, the Magat Forest Experiment Station, the Los Banos Forest Experiment Station, the Cebu Forest Experiment Station, and the Malaybalay Forest Experiment Station.

The Baguio Forest Experiment Station has its headquarters at Atok, Benguet, Mt. Province. It covers the provinces of Abra, Ilocos Sur, Ilocos Norte, La Union, Mt. Province (except Apayao), Pangasinan, Tarlac and Zambales, with an aggregate area of 3.35 million hectares, or 11.25 percent of the total area of the Philippines. Located in Masinloc, Zambales and Bobok, Benguet are two forest research sub-stations.

The Magat Forest Experiment Station covers the sub-provinces of Apayao, Mt. Province, and Ma. Aurora, Quezon, and the provinces of Batanes, Cagayan, Isabela, Nueva Ecija, and Nueva Vizcaya, with a total area of 3.91 million hectares, or 13.25 percent of the total land area of the Philippines. It has its headquarters at Diadi, Bagabag, Nueva Vizcaya. Two forest research sub-stations are located at Carranglan, Nueva Ecija, and at Claveria, Quezon.

The Los Baños Forest Experiment Station with headquarters at College, Laguna covers the provinces of Albay, Bataan, Batangas, Bulacan, Camarines Sur and Norte, Catanduanes, Cavite, Laguna and Manila, Marinduque, Mindoro Occidental and Oriental, Palawan, Pampanga, Quezon (except Ma. Aurora), Rizal and Sorsogon. These areas cover 6.15 million hectares, or 20.7 percent of the Philippine total area. Forest research sub-stations are located at Sablayan, Mindoro; Daet, Camarines Norte; and Puerto Princesa, Palawan.

The Cebu Forest Experiment Station has its headquarters at Camp 7, Minglania, Cebu. It covers the provinces of Aklan, Antique, Bohol, Capiz, Cebu, Iloilo, Leyte del Norte and Sur, Masbate, Negros Occidental and Oriental, Romblon and Samar, having a combined area of 6.15 million hectares, or 20.7 percent of the total land area of the Philippines. Located at Basey, Samar, and Hinobaan, Negros Oriental, are two forest research sub-stations.

A forest experiment station in Mindanao is the Malaybalay Forest Experiment Station with headquarters at Malaybalay, Bukidnon. It covers the provinces of Agusan, Basilan, Bukidnon, Cotabato, Davao, Lanao del Norte, Sulu, Zamboanga del Norte, and Zamboanga del Sur, with an aggregate area of 10.15 million hectares, or 34.1 percent of the Philippine area.

Studies on the inherent properties of forest soil such as moisture content, bulk density, and others, researches and experiments on the growth and survival of fast-growing reforestation species such as the *Albizia falcata* and Benguet pine, including germination and fertilizer effect and studies on how to minimize, if not totally prevent, the destruction brought about by forest pests and diseases, are some of the major researches undertaken by the Bureau. The results of these researches as well as their analysis are published in order to benefit end-users and the general population.

Noteworthy is the fact that these researches stress forest management, silviculture, grazing, and timber growth in line with the sustained-yield management program. As a result of the studies on the growth of quick-growing species, the possibility of establishing tree plantations to supplement natural forest stand is being considered. Grazing capacity studies are being carried out to determine the number of animals that could be introduced within a safe limit and to establish the basis for improving the pasture land. Timber-stand improvement and forage-improvement studies are conducted in an effort to help build up forest stock.

The need for intensive forest researches on the proper utilization of forest products has compelled the Forest Products Research and Industries Development Commission (FORPRI-DECOM) to conduct researches. Its research scientists recently found out that *Gmelina arborea*, also known as Zemane, is a promising pulpwood for the manufacture of bond paper, offset book paper, writing paper, and onion skin. According to the Reforestation Administration, this particular specie is resistant to drought and fire and is one of the fastest growing species.

A study made by specialists on forest products show that the experimental bond paper made from *Gmelina arborea* is superior in strength and in optical properties to the commercial bond paper. However, the experimental bond paper has a slight deficiency in folding endurance; but this can be corrected during the beating process. Furthermore, they observed that the experimental bond paper fully conformed with the United States Government standard specifications, although it showed comparatively higher burst tensile, folds, brightness and capacity but lower tearing resistance than the commercial sample. This low tearing resistance is an innate characteristics of the specie, being a hardwood, and it may be corrected only by blending its pulp with softwood or abaca.

In another research study, scientists of the FORPRIDECOM revealed that Philippine hardwood adopted for reforestation purposes show promise in producing pulp for high-quality corrugating boards for the manufacture of paperboard containers. They found out that a hardboard mixture consisting of 25 percent each of balsa, gubas, kaatoan, bangkal, and lambang gave a high yield, 78.8 percent, of good-quality pulp when pulped by the neutral sulfite semi-chemical method. Generally, the experimental corrugating boards produced were found superior to imported ones. They have medium-length fibers which make them pro-



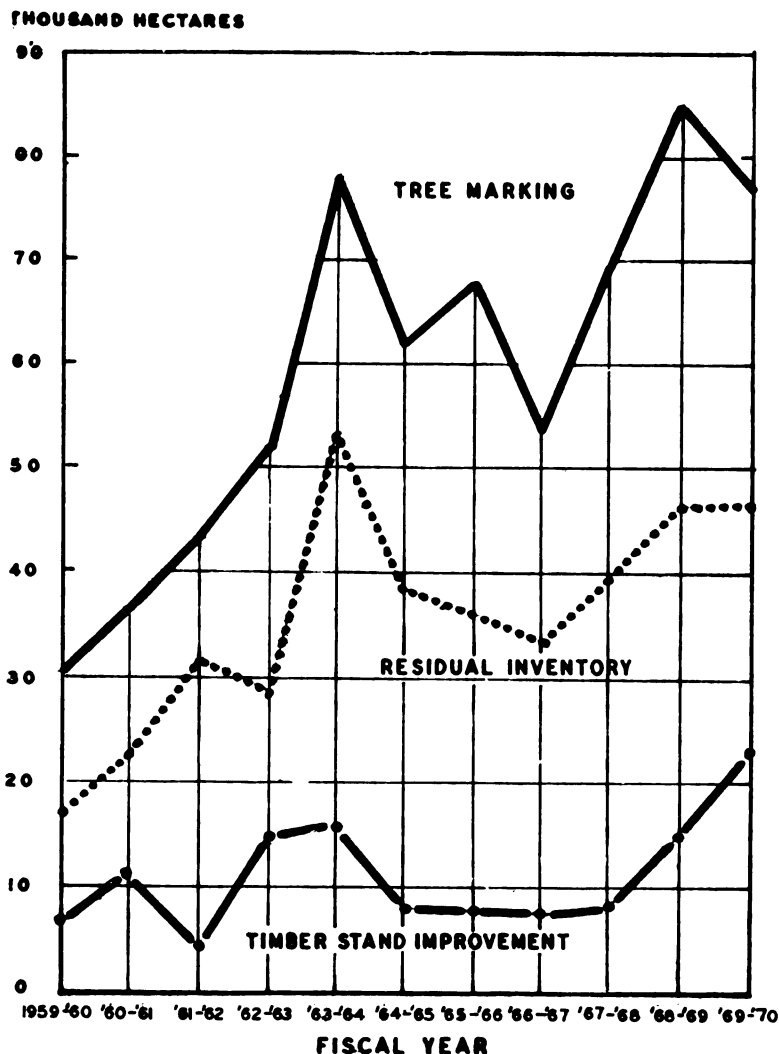
missing for pulp and paper purposes than other hardwoods. The utilization of gubas, balsa, kaatoan, bangkal, and lumbang in the manufacture of paperboard, would result in a sound, well-balanced corrugating board industry, in view of the fact that these species are all fast growers.

Logging companies such as the ARTIMCO (Aras-asan Timber Company) also conduct forest researches. It has completed researches on the determination of recovery and wastes in logging, girdling, or killing of trees one month prior to final felling, harvesting unavoidably damaged residuals, and growth and yield of residual forest in Aras-asan by the Bureau of Forestry. Still in progress are the continuous forest inventory, timber stand improvement, and tree-injury study.

Different sectors of the population engaged directly or indirectly in the wood industries and in the science of forestry have been very serious in conducting research projects, realizing of course that the results of these researches would be of lasting value. If these private-sector projects are to continue, maximum utilization and preservation of the forest will be desirable.

FIG. XII. 2

### SELECTIVE LOGGING ACCOMPLISHMENT, BY FISCAL YEAR: 1959-'60 TO 1969-'70



SOURCE: FOREST MANAGEMENT DIVISION, BUREAU OF FORESTRY

## CHAPTER XIII — FISHERIES

A source of labor in industry, savings for capital formation, taxes for social overhead investments, foreign exchange and supply for industrial production — that is how vital the fisheries industry is to the economy of the nation.

Fish forms a major part of the diet of the Filipino people, being rich in protein and minerals and demanding a generally lower price as compared to meat and poultry. With the industrial sector expanding and the degree of urbanization increasing, the fisheries industry which forms part of the agricultural sector faces a big task in providing the food requirement of the people.

Thousands of people are already employed in the fisheries industry. These include not only those actually engaged in the industry but also those responsible for effecting efficient development and administration of the fishery resources. Additional employment is not a sufficient solution to this problem, although it would mean additional families to be supported by the industry. Increasing the production of each fishermen through efficient and scientific means is expected to produce better results.

The importance of the fisheries industry in the economy of the nation cannot be undetermined. The 1965 inter-industry accounts (input-output) prepared by the Bureau of the Census and Statistics revealed that the output of the fisheries industry of ₱1,131,396 thousand was absorbed by 12 industrial sectors. These industries recorded a percentage share of 14.61 and the rest went to the private sector for final industry depended on 48 industrial sectors for its intermediate inputs. A relatively high dependence for the cordage, abaca, ramie and other native articles sectors and the petroleum refinery products sector contributing 17.15 percent and 9.44 percent respectively, to the total produced inputs has been recorded. The net value added recorded for the fisheries industry was ₱886,937 thousand of which ₱494,339 thousand or 55.74 percent were in the form of profits and the rest in wages.

With the present expansion of the fisheries industry, these proportions are expected to increase considerably. Thus, the contribution of the fisheries industry to the national economy will be greatly increased and it would be more capable of meeting the input requirements of the expanding industrial sectors highly dependent on it.

### FISHERY RESOURCES

The fishery resources of the Philippines consist of some 2,000 species of fish; and a few species of mollusks (shelled animals), crustaceans (shrimps and crabs), echinoderms (sea cucumbers, star fishes), coelenterates (jelly fishes), sponges, corals, turtles and other amphibians; seaweeds; and other aquatic fauna and flora with economic value. These resources are distributed over 1,666,000 sq. km. of marine area, a total of about 9,000 sq. km. of different bodies of fresh water and about 5,000 sq. km. of brackish water swamplands. Unfortunately, only the coastal and inshore waters are exploited. The territorial open sea and the adjacent international waters are practically unexploited by Filipino fishermen.

Our two major sources of fish production are the marine and inland waters. The marine portion is divided into the commercial sector and the municipal sector. The commercial sector covers fishing vessels three tons or larger, while the municipal sector covers most of the coastal waters. The latter is primarily utilized for sustenance rather than for commerce.

On the other hand, the inland portion is composed of brackish-water and freshwater. Brackishwater consists of the brackishwater fishponds for milkfish (chanos-chanos) and the estuarine waters which consists of oyster beds, estuaries, etc. The freshwater portion is made up of freshwater fishponds and the communal waters such as lakes, dams, reservoirs, marshes, etc. Like the municipal fisheries for the marine portion, the freshwater portion are worked out mostly for sustenance purposes.

## THE FISHERIES INDUSTRY

### Fishing Gears Used

The output from commercial fishing, municipal fishing and fishpond cultivation depend to a large extent on the efficiency of the fishing gears used. Several fishing outfits have been employed by those engaged in the fishing industry. These outfits consisted of different types of nets, baited hooks and guiding barriers.

The most commonly used among these gears are the nets which come in different sizes and forms varying from a complex structure to a simple one. Among these are the beach seine, round haul seine, purse seine, ring net, otter trawl, gill net, bag net, scoop or dip net, crab lift net, drive-in net, lever net, cast net and push net.

The beach seine locally known as "sinsoro" or "pukot" is a drag net consisting of a bag or bunt and two long wings flanked on both sides. Attached to the upper rim of the net is a headrope provided with wooden floats and to the lower rim is a ground rope provided with claystone or lead sinkers. The float and sinker lines are extended to the wing bridles to which are attached wooden brails. Ropes are tied to the brails and used to draw the net to the beach.

The purse seine is a long, rectangular net, held vertically in water by a line of floats above and a line of lead sinkers below, with a bunt at the center and a pursing device along the middle half of the sinkerline. The round haul seine, locally known as "sapyaw" is a seine layed out in a circle or an arch of a circle, thereby surrounding the school of fish. The ends of the wings are then pulled on board by one or more boats until the catch is concentrated in the bag or bunt from whence it is brailed out. A fishing gear which combines the features of the round haul seine (which has the bunt at the center and is flanked by two wings) and the purse seine (which has a regular pursing device), is the ring net or "panalikop".

Otter trawl commonly called "galagad" is a net made in the form of a conical bag with the mouth flanked on both sides by wings which are kept open by other boards or doors acting as kites traveled in the bottom of the sea to catch species of fish living near the bottom. This fishing gear has been found to have the most catch.

The gill net or "panti" is a curtainlike net consisting of one or more pieces of rectangular nets in which the capture of fish is effected by entanglement in the actual meshes of the net.

One-man operated nets are the cast net and the push net. The cast net locally known as "dala" is a conically shaped net usually operated by casting motion to cover a small school of fish with the base or rim heavily weighted. A retrieving line is attached at the conical tip or apical portion. The push net or "sakag" is a triangular-framed, collapsible net which captures the fish by a forward horizontal motion along the bottom of the shallow waters.

A box-like net is the bag net locally known as "basnig". It is operated from outriggers or booms of boat with the aid of light, effecting the capture of fish by its dipping and lifting motion. The net stimulates an inverted mosquito net under the boat during the operation. Generally in the form of a framed small bag net, is the scoop or dip net or "salok" in the dialect. With or without a handle it is used entirely by hand or partly by mechanical power in which fish are captured by a dipping or scooping motion.

The lift net which includes crab lift net, drive-in net and lever net effect the capture of fish by a lifting action. The crab lift net is a square-framed shallow lift net which is baited and sunk to the bottom by a line and weight. It is hauled to the surface at periodic intervals and is used for catching crabs. The drive-in net locally known as "daplis" or "bahan" is a type of lift net operated with the use of a scareline. This gear may be triangular in form and made of a sinamay cloth netting with a bamboo frame or it may be rectangular with or without a bag and which usually has no frame. The lever net or "salambao" is a semi-mechanized gear with a lever arrangement mounted on a bamboo raft and with a square-shaped net attached at the distal end of the lever. The net is made up of four square-shaped pieces joined together.

Fishing gears which used baited hooks are the hook and line, long line or set long line, and troll lines. Hook and line is a fishing gear which may be attached to a pole or the side of a boat used with acceptable baits of all kinds such as worms, frogs, spiders meat, artificial baits, etc. Long line or set long line popularly known as "kitang" is an extremely long line with a large series of baited hooks, either set or drifting and requiring only periodic attention at more or less fixed intervals of time. Troll lines or "sibid-sibid" are long handlines with a hook or hooks at the free end, baited with a natural bait or an artificial one and the whole arrangement is drawn or towed behind the boat while in motion.

Devices are also constructed in strategic areas in order to facilitate fish capture. These devices include the fish pot or "bubo," the fish shelter or "bambon" and the fish corral or "baklad." The fish pot is a baited enticing device made of bamboo, rattan or chicken wire in either cylindrical or rectangular form with a nonreturn valve which provides easy entrance but difficult exit. The fish shelter is made up of anchored bunches of twigs, bushes, weeds, piles of posts etc., which afford refuge for fish and from whence the fish are captured by varied accessory devices operated in different ways. The fish corral is commonly used as a guiding barrier. It is constructed of bamboo, brush or chicken wire and set by means of regularly-spaced stakes or posts in tidal water or along the natural paths of fish which are of such shapes as to direct the fish in a desired area.

A pulled or pushed fishing gear made out of non-textile webs or splints is the dredge or rake locally known as "kalaykay" or "pangahig" in which the capture of fish is effected by the raking or scratching action in the bottom of rivers, lakes and seas.

### Fish Marketing

The sale of fresh fish in a wholesale fish market is done either by secret bidding (whispering) or open bidding at auction through private brokers or commission agents. The fish are landed by fishing boats or brought by trucks to various fish landings. These consist principally of Navotas, Rizal; Divisoria, Manila; Damortis, La Union; Sta. Ana, Cagayan; Dalahican, Lucena City; Mercedes, Camarines Norte; Calabanga, Camarines Sur; Sakud, Masbate; Roxas City; Iloilo City; Bacolod City; Cadiz, Negros Occidental; Catbalogan, Samar; Zamboanga City and Davao City.

The biggest landing place and wholesale fish market is in Navotas on which is landed almost half of the total fish catch of commercial fishing vessels. A thorough engineering feasibility study is therefore being undertaken to construct a fishing market and a fishing harbor in the vicinity. The turnover of fish in the other landing places is very much lower than that in Navotas.

The wholesale fish trade is hampered by lack of ice and cold storage facilities which would maintain an efficient marketing system and induce fishermen to increase their catch. Ice plants and cold storage units were established with the aid of government support in Magallanes, Sorsogon; Mercedes, Camarines Norte; Guiuan, Samar; Barugo, Leyte; Liminangoong, Palawan; Masinloc, Zambales; Bato-bato, Sulu; Sagay, Negros Oriental; Siasi and Jolo, Sulu; Sarabia, Negros Occidental; Lucena City; Malacbalac, Albay; Makato, Aklan; Bayawan, Negros Oriental; Iloilo City; and Sta. Ana, Cagayan.

Aside from the fresh fish offered for sale in the markets, processed fish which are either dried or smoked and canned fish are also available for public consumption. As it is, a great bulk of the canned fish and fish preparations are imported. Sufficient incentives have been offered to induce people in the fishing industry to engage in fish canning. A series of experiments is also being conducted for the canning of mackerel, tuna and other species of fish found in the region. If these experiments will be successful and there would be enough investments in the canning industry, our imports of canned fish and fish preparations would be reduced substantially.

### Statistics of the Fisheries Industry

The fish production of the Philippines has been deficient in meeting the consumption requirement of the population. The last decade showed that the consumption of the people exceeded the production by an average of 7.84 percent; that is, the production is able to meet approximately 92 percent of the demand for fish.

**Table XIII.1 — Fish Production and Consumption:  
1960-1970**

Year	Production (metric tons)	Consumption * (metric tons)	Production Deficiency (percent)
1960	444,622	528,033	18.76
1961	454,899	520,008	14.31
1962	483,948	515,947	6.61
1963	547,354	592,137	8.18
1964	603,506	643,278	6.59
1965	667,202	709,471	6.34
1966	705,278	746,260	5.81
1967	746,063	796,841	6.81
1968	973,684	1,001,802	2.89
1969	940,792	985,476	4.75
1970	988,884	1,040,005	5.17

\* Fish meal not included.

Source: Fisheries Statistics of the Philippines, Philippine Fisheries Commission, 1964-1970.

During the period 1960-1970 fish production steadily increased by an average of 59,321 metric tons annually. Consumption, however, increased during the period 1962 to 1968 but declined the succeeding year by 16,326 metric tons. By 1970 it reached 1.04 million metric tons realizing an increase of 54,529 metric tons over the previous year.

Our fish production has been derived either by commercial fishing or municipal fishing, or through fishpond cultivation. Previous years have shown that the municipal fishing has accounted for most of the fish production with an average of 50.99 percent during the period 1960 to 1970. The municipal fishing steadily increased its production with an average annual increment of 25,227 metric tons. Inasmuch as municipal and sustenance fishing is geared towards filling the consumption requirement of the people, it is expected that it will steadily increase to meet the demand for the growing population.

The commercial fishing rank next in the line-up of fish production yielding an average of 38.34 percent of the total fish production during the same period. The least production was accounted for by the fishponds marking an average of 10.68 percent through the years.

Table XIII.2 - QUANTITY AND VALUE OF FISH PRODUCTION BY SOURCE: 1960-1970

Year	Commercial Fishing		Fishponds		Municipal and sustenance fishing		Total	
	Quantity (metric tons)	Value (P1,000)	Quantity (metric tons)	Value (P1,000)	Quantity (metric tons)	Value (P1,000)	Quantity (metric tons)	Value (P1,000)
1960	120,022	93,617	60,119	96,191	264,481	274,560	444,622	464,368
1961	125,626	100,501	60,825	99,144	268,448	271,133	454,899	470,778
1962	150,037	238,034	61,436	108,213	272,475	234,722	483,348	640,969
1963	208,748	277,475	62,044	103,614	276,562	283,476	547,354	664,565
1964	258,100	389,731	62,680	104,050	282,726	291,207	603,506	784,988
1965 <sup>a/</sup>	300,074	372,092	63,198	106,172	303,930	328,245	667,202	806,509
1966 <sup>a/</sup>	314,899	366,143	63,654	129,855	326,725	329,990	705,278	825,938
1967 <sup>a/</sup>	330,922	423,734	63,912	135,493	351,229	403,915	746,063	963,142
1968 <sup>a/</sup>	406,794	548,358	86,711	182,441	444,179	631,139	937,684	1,361,938
1969 <sup>a/</sup>	368,727	556,778	94,573	191,038	477,492	709,557	940,792	1,457,373
1970 <sup>a/</sup>	381,877	614,822	96,461	252,727	510,546	857,717	998,884	1,725,266

<sup>a/</sup> Values are computed at estimated wholesale price.

Source: Philippine Fisheries Commission, 1970 Fisheries Statistics of the Philippines.

The commercial fishing vessels frequented about 42 fishing grounds all over the Philippines in 1970. During the same year the Sulu Sea (along Palawan waters) and the Visayan Sea recorded the most production with 221.67 million and 89.99 million kilograms, respectively. Bacuit Bay, Carigara Bay, and Leyte Gulf which recorded 446,040; 27,480 and 112,000 kilograms, respectively for 1969, had no reported production for the succeeding year. The most substantial percentage increase of 26,081 was recorded for Taytay Bay, followed by Tanon Strait whose production increased by 1,742 percent and Aguisan Bay which experienced a 1,072 percent increase in production. On the whole, the production of commercial fishing vessels during the period increased by 3.57 percent, with the substantial increases noted in 18 fishing grounds accounting for the increase as shown in the table below.

Table XIII.3 - PRODUCTION OF COMMERCIAL FISHING VESSELS BY FISHING GROUND: 1969 AND 1970

Fishing Ground	Production (In kilograms)		Percentage Increase/Decrease
	1969	1970	
Total	368,726,640	381,877,120	3.57
Aguian Bay	40,140	471,720	1072.27
Albay Gulf	174,840	76,090	(56.43)
Asid Gulf	269,400	181,590	(32.26)
Babuyan Channel	1,131,890	948,080	(16.75)
Bacuit Bay	446,040	-	-
Batangas Coast	1,125,960	1,101,800	(3.01)
Bohol Strait	306,300	862,690	180.09
Barinas Pass	856,160	1,188,760	41.45
Camarines Sea	52,720	10,460	(220.78)
Cebu Coast	1,230,320	1,244,000	(20.31)
Coron Bay	1,456,000	1,451,120	(15.13)
Cuyo Pass	18,080	5,800	(67.92)
Carigara Bay	27,480	-	-
Davao Gulf	4,754,400	4,315,240	(8.85)
Dinagat Sound	-	116,480	-
Dulacra Strait	1,012,040	2,248,960	122.22
Iligan Bay	17,320	57,680	347.99
Iliana Bay	561,080	443,760	(20.91)
Iloilo Coast	6,000	12,980	148.00
Iloilo Strait	1,734,280	1,211,120	(31.33)
Laron Bay	1,547,480	528,040	(65.93)
Leyte Gulf	112,000	-	-
Lirangan Gulf	912,680	1,363,320	16.51
Malabara Sound	213,200	809,240	279.57
Manila Bay	22,712,880	20,220,840	(10.98)
Mindanao Sea	596,000	596,360	(15.04)
Malubog Bay	195,430	133,400	(31.62)
Mindoro Strait	124,880	284,560	127.87
Moro Gulf	1,225,720	1,566,840	26.88
Panay Gulf	458,700	479,360	17.43
Palawan Gulf	2,459,430	2,196,480	(8.86)
Samar Sea	4,124,120	2,895,510	(29.73)
San Miguel Bay	4,304,360	5,251,690	21.99
San Pedro Bay	-	32,000	-
Sarangani Bay	1,821,240	2,569,640	19.13
Silang Bay	8,439,920	7,561,920	(3.21)
Sibuyan Sea	1,344,240	777,840	(42.14)
Sulu Sea	2,371,360	4,764,840	60.36
Sulu Sea (along Palawan waters)	181,287,560	221,667,000	22.27
Tanon Strait	8,000	147,360	1742.00
Tawi-Tawi Bay	-	37,160	-
Tayabas Bay	5,093,320	1,561,240	69.35
Taytay Bay	4,700	1,047,240	26,081.00
Ticao Pass	187,560	91,480	(51.23)
Visayan Sea	112,735,480	89,992,640	(20.17)

Source: Philippine Fisheries Commission, 1970 Fisheries Statistics of the Philippines.

The commercial fishing vessels utilize different fishing gears in the process of production as discussed in an earlier section. During the period 1965-1970 otter trawl was noted to have accounted for the most production followed by bag net. An average production of 137 million kilograms was recorded for otter trawl and 124 million kilograms for bag net during the period under study. It is estimated that a unit vessel employing otter trawl had an average production of 219,902 kilograms for the same period, while the production of unit vessel employing bag net as a fishing gear averaged 133,899 kilograms. Vessels using gill net had the least production averaging 167,360 kilograms during the period under review. A unit vessel using gill net was estimated to yield only an average of 15,626 kilograms. It is noted that the different fishing gears exhibited fluctuations in their production as shown in the following tables.

Table XIII.4.—PRODUCTION OF COMMERCIAL FISHING VESSELS BY GEAR USED: 1965 TO 1970

(In kilograms)

Gear Used	1965	1966	1967	1968	1969	1970
<b>TOTAL</b>	<b>300,074,200</b>	<b>314,898,800</b>	<b>330,921,960</b>	<b>406,793,880</b>	<b>369,726,640</b>	<b>381,877,120</b>
Bag Net	119,492,640	119,785,800	111,104,760	150,643,920	115,275,880	125,520,440
Beach Seine	1,266,320	1,295,560	3,935,520	2,353,520	5,003,040	4,605,160
Gill Net	103,600	14,200	100,040	159,320	244,800	382,200
Hook & Line	7,564,720	11,517,200	8,914,840	9,959,320	9,310,920	8,281,720
Long Line	-	-	1,486,160	1,902,200	1,142,880	609,960
Muro-Ami	14,160,000	11,722,280	10,246,320	16,641,960	19,307,480	16,823,480
Purse Seine	28,674,560	25,700,920	40,444,840	63,138,240	80,050,000	86,718,080
Otter Trawl	120,027,240	132,717,000	144,044,480	154,760,320	134,140,480	135,621,960
Round Haul Seine	8,765,680	12,145,840	10,645,000	7,235,080	4,251,160	3,314,120
Fish Corral	19,440	-	-	-	-	-

Source: Philippine Fisheries Commission, Fisheries Statistics of the Philippines 1969 and 1970.

Table XIII.5.—AVERAGE PRODUCTION OF COMMERCIAL FISHING VESSELS PER UNIT VESSEL BY GEAR USED: 1965 TO 1970

(In kilograms)

Gear Used	1965	1966	1967	1968	1969	1970
Bag Net	118,427	112,369	110,882	170,604	144,818	146,294
Beach Seine	21,833	27,565	87,456	53,489	122,025	93,982
Gill Net	4,709	1,092	14,291	31,864	16,320	25,480
Hook and Line	78,799	85,313	80,313	113,174	99,988	94,110
Long Line	-	-	165,128	135,871	126,986	67,773
Muro-Ami	179,240	249,410	276,927	365,678	804,478	647,056
Purse Sein	170,682	113,721	229,800	367,082	516,403	353,951
Other Trawl	207,660	222,679	242,908	237,362	201,110	207,690
Round Haul Seine	62,612	82,624	98,564	219,244	61,611	43,607

Source: Philippine Fisheries Commission, Fisheries Statistics of the Philippines, 1969 AND 1970.

The production of commercial fishing vessels constituted of several species of fish and other fishery products. It is estimated that about 69 different kinds of fishery resources have been extracted from our fishing grounds. The period 1965 to 1970 showed that round scad always had the most share in the fish output followed by either sardine or slipmouth. The abundance or scarcity of a specific specie may be noted by the production it recorded during the period as shown in table below.

Table XIII.6 - PRODUCTION OF COMMERCIAL FISHING VESSEL BY KIND: 1965 TO 1970

Fishery Product	Production (In kilograms)					
	1965	1966	1967	1968	1969	1970
Total	300,074,200	314,898,800	330,921,960	406,793,880	368,726,640	381,877,120
Albacore	99,520	275,320	183,240	696,240	133,760	206,840
Anchovy	12,600,880	11,481,480	14,652,320	14,462,800	11,005,080	9,241,080
Barracuda	529,720	601,680	733,080	1,052,760	272,120	138,040
Big-Eyed Scad	10,563,880	15,012,560	12,609,000	20,051,920	17,014,400	14,372,520
Bonito	3,029,560	5,546,720	7,245,080	13,281,880	12,391,840	7,247,040
Butterfly Fish	-	66,440	-	60,680	30,960	22,400
Caesio	11,751,480	16,601,520	6,729,400	8,636,440	9,974,760	7,158,560
Cavalla	3,945,600	5,944,920	3,700,040	9,937,240	5,303,240	6,368,560
Cigar Fish	93,480	182,480	151,800	514,480	267,480	77,120
Crab	901,320	1,641,400	1,566,760	4,672,440	2,181,520	2,705,120
Crevaille	1,680,360	3,520,720	1,209,280	4,941,320	2,198,560	1,964,080
Croaker	11,200,880	10,214,720	8,627,320	13,064,520	10,338,440	10,073,320
Cutlass	222,320	291,120	1,158,280	1,292,840	934,160	189,240
Eels	-	-	-	48,400	9,280	-
Flat Fish	2,293,040	1,838,720	2,219,880	2,456,880	1,535,920	1,630,880
Flying Fish	77,200	126,560	36,320	889,320	127,960	99,120
Garfish	-	-	-	857,720	96,680	52,080
Gizzard Scad	183,880	114,680	503,400	1,105,800	589,160	228,760
Glassfish	-	157,800	-	54,520	25,160	-
Goat Fish	104,520	531,680	713,640	569,440	515,160	361,560
Goby	16,000	-	3,000	193,000	-	-
Grouper	2,460,960	4,747,680	2,060,840	3,399,960	1,933,880	4,138,160
Grunt	261,200	340,520	263,240	1,071,440	178,640	150,920
Haftail	7,430,560	7,272,080	6,612,960	13,656,880	8,870,760	6,738,200
Half beak	16,600	-	18,200	900,640	68,840	198,040
Hardtail	18,600	265,480	374,080	1,656,360	402,320	365,240
Herring	2,818,000	3,461,880	3,045,600	4,247,640	2,026,840	1,317,040
Leaf fish	800	-	-	58,240	-	-
Leather Jacket	-	507,560	60,920	975,440	228,320	33,680
Lizard fish	16,250,760	15,407,480	15,352,280	18,876,800	14,559,040	12,277,960
Mackerel, curb	5,439,040	7,360,720	16,101,560	25,391,480	23,944,400	21,009,800
Mackerel, sp.	117,160	1,931,640	2,206,560	5,046,560	768,840	3,596,800
Macolor	20,000	1,640	55,960	535,320	121,840	105,080
Mojarra	-	173,440	58,280	202,000	131,480	148,280
Moonfish	1,418,080	1,221,720	2,347,800	3,368,040	1,602,680	1,296,960
Moray	-	-	1,642,760	179,360	79,880	1,760
Mullet	26,800	34,840	8,680	523,400	258,760	8,000
Nemiptered	12,740,920	16,336,000	18,554,360	19,890,880	18,919,040	17,153,600
Pompano	9,800	20,480	27,480	1,032,520	286,520	170,240
Pargo	-	6,800	-	14,880	15,880	2,800
Parrot fish	-	7,000	90,800	217,920	471,960	282,840
Pomfret	10,960	-	166,920	118,440	79,400	11,600
Porgy	1,132,720	1,020,680	770,000	986,560	192,560	277,760
Prawns	-	-	-	-	41,600	11,320
Ray fish	-	-	-	242,400	288,160	20,040
Round scad	99,939,440	96,088,640	100,327,360	87,521,240	109,728,640	150,713,000
Runner	591,240	278,000	703,760	4,947,320	1,177,840	879,160
Sardine	32,607,520	22,399,440	22,360,680	27,566,680	34,346,760	32,882,560
Sea catfish	1,960	3,800	132,960	518,600	186,200	95,880
Sea bass	-	6,840	-	-	-	-
Shark	-	12,800	8,920	406,400	40,360	-
Shrimp	10,491,480	11,285,280	11,668,160	11,286,240	10,969,720	10,378,120
Siganid	38,000	54,480	14,200	383,560	260,760	606,040
Sillago	-	-	-	143,800	388,360	14,400
Silver bar	-	-	-	10,840	22,200	2,800
Silverside	103,120	50,520	147,880	357,680	66,200	35,440
Skyjack	95,000	169,000	229,960	1,041,120	2,316,440	122,360
Slipmouth	31,166,440	29,067,760	33,842,480	40,962,880	30,925,800	33,254,160
Snapper	2,924,520	3,763,920	3,662,600	4,123,960	3,787,840	4,711,680
Spade fish	-	340,480	-	292,040	18,000	3,600
Squid	4,964,320	5,604,080	4,782,360	9,221,840	6,365,560	5,862,400
Surgeon fish	1,849,800	3,679,680	3,667,040	5,636,040	7,327,400	2,892,120
Sword fish	1,320	-	-	134,440	62,600	5,040
Tarpon	-	86,360	8,840	266,320	50,240	-
Tenpounder	-	65,120	384,840	1,437,840	162,040	3,640
Threadfin	-	49,320	-	198,200	22,880	-
Tuna	1,594,680	2,870,920	3,803,800	6,019,720	2,522,560	1,685,160
Whiting	36,720	279,200	26,600	338,960	99,840	10,200
Wrasse	-	4,000	7,840	231,480	274,720	174,320
Miscellaneous	4,152,040	4,471,000	13,280,560	2,317,880	7,186,400	6,092,600

Source: Philippine Fisheries Commission, 1970 Fisheries Statistics of the Philippines.



Fishponds have also contributed substantially to the fish production of the country. The reported production from 1965 to 1970 showed an increasing trend in the production of fishponds. This may be attributed to increases in the area of fishponds in operation through the years. Along with increases in the area of fishponds in operation are increases in the capital invested to fishponds. As a consequence of these changes it is expected that employment in fishponds will also increase.

As of 1970, there are reportedly 168,118.10 hectares of fishponds operating in the country which is estimated to have been allotted an investment of P336.24 million. These fishponds had a production of 94,573,110 kilograms valued at P191,037,680 as shown in the table below for 1969 and 96,460,860 kilograms valued at P252,727,450 in 1970.

Table XIII.7 - AREA, INVESTMENT, PRODUCTION AND EMPLOYMENT OF FISHPONDS IN OPERATION: 1965-1970

	1965	1966	1967	1968 <sup>1/</sup>	1969	1970
Area (in hectares)	137,250.68	138,967.63	140,054.84	162,806.59	164,414.09	168,118.10
Investment (in pesos <sup>2/</sup> )	274,501,360	277,935,260	280,109,680	325,613,180	325,828,180	336,236,200
Employment <sup>2/</sup>	137,250	138,967	140,054	162,806	164,414	168,118
Production (in kgs.)	63,197,690	63,654,340	63,911,700	86,711,270	94,573,110	96,460,860
Value (in pesos)	106,172,120	129,854,860	135,492,800	182,440,510	191,037,680	252,727,450

<sup>1/</sup> Based on the average development cost of P2,000 per hectare.

<sup>2/</sup> Based on the average of one man employed to every hectare.

<sup>3/</sup> Corrected data on area due to errors in reported areas of private fishponds.

Source: Philippine Fisheries Commission, Fisheries Statistics of the Philippines 1969 to 1970.

The fish production of the Philippines does not only consist of the several species of fish, mollusks and crustaceans, but also other fishery products such as reptile skin, seaweeds, dried shark fins, shells, sponge and trepand. During the period 1965-1970, there had been marked fluctuations in the production of these fishery products with 1967 having the most production reaching 5,424,536 kilograms. In 1968 although the quantity produced was less, the value of production was greater than the 1967 value, amounting to 2.9 million pesos. This amount is greater by 39.87 percent over the 1967 value. Shells formed the bulk of the production but reptile skin was the most expensive among the products mentioned. In 1969, however, no production was reported for reptile skin. There is a noted decline in the quantity and value of fishery products gathered in 1970. Relative to the previous year a decline of 39.06 percent was realized in the fishery products output.

In order to meet the consumption requirement of the people and provide for the production deficiency, the country imports fish and fish preparations. Statistics show that the bulk of the imports are canned or packed in airtight containers and only a very small percentage are imported fresh. During the period 1965 to 1970 the quantity of fish and fish preparations imported in airtight containers formed an average of 81.25 percent of the total quantity imported followed by fish meal averaging 18.12 percent with the processed (dried, salted, smoked, etc) and fresh, recording an average of 0.57 and 0.06 percent respectively, through the years. Up to 1968, our imports of fish and fish preparations has been observed to be on an increasing trend. However, in 1969 the quantity imported declined by 19.54 percent and this further decreased by 11.16 percent in 1970.

The country also export fish and fish preparations although on a rather small scale. During the period under review the volume of our exports increased from 514,992 kilograms in 1965 to 2,429,027 kilograms in 1970 realizing an average annual increase of 293,529 kilograms. A marked increase of about 192 percent has been noted in the volume of our exports

in 1966. A gradual increasing trend has been observed of our exports then on, interrupted by a slight decline of 10.29 percent in the volume exported in 1968 relative to the previous year. The value of our exports, however, followed an ever-increasing trend during the period under study. This may be attributed to the increases in the unit price of the fish and fish preparations exported notably in the value of fresh, chilled or frozen fish which formed the bulk of our exports. A remarkable increase in the price of this particular item was noted in 1970 where from P2.89 per kilogram in 1969, the unit price increased to as high as P6.76.

Other fishery products gathered from our abundant marine and fisheries resources also find their way in the export market. Reptile and aquatic animal skin, dried seaweeds, sponges, corals, shells and shell manufactures are some of our fishery products that are exported. In 1970, the value of our exports of fishery products amounted to 13.57 million pesos with shells having the biggest share of 8.85 million pesos. A substantial increase of 164.45 percent was realized over the previous year's value of our exports. Shells and shellcrafts prove to be valuable export products and should therefore be given due concern. Amounting to 12.49 million pesos in 1970 our export of shell and shell manufactures could still be increased under proper management.

Table XIII.8 - QUANTITY AND VALUE OF FISHERY PRODUCTS GATHERED BY KIND: 1965-1970

(Quantity in kilograms, value in pesos)

Fishery Product	1965		1966		1967		1968		1969		1970	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Total	874,990	700,043	1,208,819	1,389,200	1,424,536	2,043,204	4,169,737	2,858,023	3,374,450	816,242	2,056,304	1,164,711
Reptile Skin 1/	4,285	52,627	5,906	26,518	2,307	7,507	4,330	30,336	-	-	110	77C
Seaweeds	305,132	199,178	1,132,600	530,316	877,790	632,566	600,213	420,111	404,603	235,878	209,406	71,198
Sharkfins, dried	350	200	950	678	1,890	13,240	4,870	2,925	6,911	7,815	14,315	17,462
Shells 2/												
Capiz	90,748	85,847	1,367,160	122,444	2,762,415	75,740	2,314,938	112,794	2,041,000	110,640	520,650	195,597
Mother of Pearl	117,123	138,383	245,227	398,679	267,298	322,218	302,518	332,209	131,742	187,292	372,503	353,878
Shell	1,468	1,370	12,207	16,748	10,462	45,340	4,492	3,318	3,380	5,435	8,836	20,411
Troch	120,266	106,932	144,414	128,512	51,573	161,546	45,493	46,805	23,579	29,745	163,775	145,764
Sponge	2,360	5,120	4,323	5,758	8,986	14,620	3,550	33,493	5,810	14,320	3,210	7,233
Trepang	6,145	4,536	402	320	8,217	35,943	5,247	3,855	3,248	2,347	5,450	1,254
Turtle shell	3,420	3,148	177	1,218	13,348	4,036	2,156	10,500	1,990	17,423	-	-
Miscellaneous shell	223,893	74,647	797,455	128,009	1,420,244	730,128	881,930	1,871,697	754,187	205,347	758,049	351,122

1/ Consisting of crocodile and snake skin for manufacture into leather.

2/ Quantity and value do not include the meat parts.

Source: Philippine Fisheries Commission, 1970 Fisheries Statistics of the Philippines.

Table XIII.9 - QUANTITY AND VALUE OF IMPORTS OF FISH AND FISH PREPARATION BY KIND: 1965-1970

(Quantity in kilograms; FOB value in pesos)

Item	1965		1966		1967		1968		1969		1970	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Total	51,717,259	61,688,201	50,121,132	59,511,315	70,705,907	83,787,758	88,290,296	98,835,870	71,034,890	77,488,732	63,105,769	108,118,969
Packed in airtight containers	42,418,385	56,359,266	41,587,869	54,177,897	56,929,748	76,196,153	66,589,342	89,184,731	58,268,183	71,130,622	53,346,919	98,705,498
Fresh chilled or frozen	22,822	36,529	20,952	41,255	31,189	50,390	152,748	250,829	40,361	112,927	10,343	55,730
Fish meal	8,982,791	5,163,916	7,975,948	5,082,364	14,383,080	7,320,705	21,005,281	8,930,341	12,422,832	5,975,932	9,614,480	9,104,968
Processed (Dried, salted, etc.)	295,261	128,490	536,383	209,799	361,890	220,510	543,625	469,969	303,514	269,251	134,027	252,773

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines 1965-1970.

Table XIII.10 - QUANTITY AND VALUE OF EXPORTS OF FISH AND FISH PREPARATION BY KIND: 1965-1970

(Quantity in kilograms, FOB value in pesos)

Item	1965		1966		1967		1968		1969		1970	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Total	514,392	800,162	1,504,629	2,582,948	1,582,681	2,896,240	1,419,673	3,851,394	1,732,417	4,963,867	2,429,027	15,123,998
Fresh chilled or frozen	406,796	592,118	1,399,876	2,386,268	1,416,051	2,565,608	1,292,832	3,630,824	1,558,186	4,508,831	2,073,054	14,003,076
Packed in airtight containers	98,406	172,261	91,515	171,156	150,747	285,863	121,950	208,475	221,514	413,734	254,137	743,174
Process (smoked, dried etc.)	9,790	35,990	13,238	25,424	15,883	44,769	4,891	12,095	13,717	41,302	101,836	377,748

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines, 1965-1970.

Table XIII.11 - QUANTITY AND VALUE OF EXPORTS OF FISHERY PRODUCTS: 1965-1970

(FOB value in pesos)													
Item	Unit of measure	1965		1966		1967		1968		1969		1970	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Total		2,294,075		4,241,215		3,072,333		3,532,256		3,131,254		13,571,306	
Reptile & aquatic animal skin	kilo	4,276	125,176	8,776	98,105	2,512	71,136	8,906	101,256	9,231	275,314	12,162	112,513
Seaweeds (dried)	kilo	433,900	278,521	1,808,937	1,500,316	751,366	541,151	612,291	485,469	330,546	680,031	34,892	41,211
Corals	kilo	53,232	32,517	21,742	15,244	172,642	170,465	153,572	102,160	245,320	221,765	464,109	694,573
Sponges	kilo	5,252	49,744	5,300	49,753	11,917	155,193	6,060	111,344	36,229	204,689	5,518	227,465
Shells	-	-	1,026,545	-	687,475	-	695,768	-	529,371	-	1,979,524	-	8,851,829
Shells manufactures	-	-	1,781,776	-	1,897,522	-	1,435,600	-	1,806,156	-	1,770,631	-	3,643,715

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines, 1965-1970.

## Problems of the Fisheries Industry

Many segments of the fishery resources have been observed to have a relatively low production and a declining yield. This is one of the several problems that alarm the people directly and indirectly concerned with the industry. The use of fine meshed nets which catches young fishes instead of being allowed to spawn to insure a continuous fish supply; the use of explosives and poisonous substances which have damaged the fishing grounds of the country leaving some to total depletion; and the dumping of industrial wastes laden with substances poisonous to fish and other aquatic life have brought about the near depletion of our freshwater areas' and coastal waters' resources. This led to the relatively low output of the fisheries industry.

Added to the depleted condition of our coastal waters the use of antiquated method of fishing has resulted to a poor catch and consequently accounts for the low income among fishermen. The high cost of modern fishing vessels and gear has aggravated this situation. Credits available at low rates of interest are insufficient thus serving as a drawback in the expansion and improvement of fish production facilities and methods. There has been a slow flow of investments in the fisheries industry and the loans obtainable at usurious rates have depressed the low-income fishermen driving them deeper into poverty.

Further deprived by the lack of trained fishermen, technicians and entrepreneurs in the modern methods of fishing, the development of the untapped deep-sea or offshore waters and the adjacent international waters have been retarded. Expensive fishing operations and inadequate marketing systems have continually discouraged fishermen to pursue further fishing operations. This is due to the lack of infrastructure facilities such as fishing boat, wharves, ice plants and cold storage facilities. The lack of fishing boat wharves led the fishermen to anchor their boats far from the shore, making the landing of the catch, delivery of fishing equipment and supplies, and provisioning of crew preparatory to fishing trips time consuming and expensive. Poor means of transporting landed fish leaves the fishermen at the mercy of the middleman to dispose of the catch who later on get the bigger share of the consumer's peso. In business operations, the middleman also get the bigger share of the profit represented as sales commission and interest on loans.

Scientific studies on our fishery resources has suffered a backlog. Knowledge of the factors controlling the distribution, abundance and availability of the resources; their habits, biology and population dynamics are still very inadequate. These problems are hoped to be adequately met by the agency of the government vested with the duty of administering and conservation of the fishery resources. The Philippine Fisheries Commission is charged with this duty but its organizational set up is still inadequate to meet the expanded activities geared towards a faster development of the fisheries industry.

## THE GOVERNMENT AND THE FISHERIES INDUSTRY

### Development of Organized Fisheries Work

Organized fisheries work began in the year 1907 when the Fisheries Section was created in the Bureau of Science. This section delved into the taxonomy, biology and methods of exploitation of the Philippine aquatic flora and fauna. In 1932 it expanded into the Fisheries Division under the Department of Agriculture and Commerce and was then on responsible for the development, management and regulation of fisheries activities. During the same year R.A. No. 4003, also known as the Fisheries Act, was promulgated providing the legal basis for the development and conservation of the fishery resources.

Specific investment policies for fisheries development also include: board resolutions by government banks such as the Development Bank of the Philippines, Philippine National Bank and Central Bank, which grant special financing assistance to fishpond operators and to small fisherman; a statute of R.A. No. 3586 which prohibits the exportation of bangus fry thus supporting the aim to develop our bangus fishpond industry; and a presidential directive which aims to facilitate under present laws the titling of developed fishponds which are leased from the government for the fishpond operators.

During the period 1946 to 1950 a Philippine Fisheries Program was implemented by the United States Fish and Wildlife Service and the Division of Fisheries of the Philippine Government. The program concentrated along the field of applied oceanography, fisheries biology; fish culture, fish capture; technology, engineering, statistical economics, market, development and demonstration of fishing exploration; and man power training for fisheries work. It also conducted the first commercial assessment of the productivity of the Philippine fishing grounds. This program led to significant results in the development of the fisheries industry among which are: it encouraged Filipino investors to engage in commercial fishing ventures; it paved the way for the development of pelagic (near water surface) fishing in off-shore waters and the expansion of demersal (bottom) fishing from shallow bays to deeper waters; it improved fishpond management and fish culture techniques; it initiated the further improvement of fish processing technology; and it helped train the first corps of fishery administrators, scientists and technologists of the Bureau of Fisheries which was established in 1947.

### Policies for Fisheries Development

In 1963, the Philippine Fisheries Commission took over the functions of the Bureau of Fisheries as defined by Republic Act 3512. The latter statute is one of the existing policies which legally provides for the proper administration of our fishery resources. It further declares that it is our national policy to encourage, promote and conserve our fishery resources in order to insure a steady and sufficient supply of fish and other fishery products of our increasing population and to reduce to a minimum level the importation of such production so as to help stabilize the national economy by enlarging the office charged with the development, improvement, management and conservation of our fishery resources.

There are a number of existing statutes which cover specific areas of fishing policies. The Investment Incentive Act (R.A. 5185) under which the Board of Investment (BOI) was created also applies to the expansion of the fisheries industry. This act provides broad incentives and grants tax privileges for firms registered with the BOI. The privileges include the deduction of organization pre-operating expenses from taxable income, accelerated depreciation, net operating loss carry over, tax exemption, on imported capital equipment, tax credit on domestic capital, equipment, employment of foreign nationals, deduction for expansion re-investment etc.

## Available Fisheries Financing Assistance

The Development Bank of the Philippines provides for the existing financing schemes of the fisheries industry. It gives small loans not exceeding P2,000 to small foreshore and river fishermen as per Board Resolution No. 1613 series of 1959. It has two fishpond financing programs, one for holding 50 hectares or more and one for holding for 40 hectares or less as per Board Resolution No. 8963 series of 1966. It provides production loans such as emergency loans of P300 per hectare as per Board Resolution No. 8963 series of 1966, fishpond fertilizer loan of P250 per hectare as per Board Resolution No. 2541 series of 1964, loans for bangus fingerling pond operations as per Board Resolution No. 4023 series of 1966 and loans for shrimp production as per Board Resolution No. 2991 series of 1965. It also extends long and short term industrial loans for deep-sea fishing operators at 9 to 10 percent annual interest with 10 years amortization and at 8 percent interest with two years loan period, respectively.

The Philippine National Bank extends the following financing services: 1) Import financing which is ordinarily handled by the International Department of the Bank. These are availed of by people engaged in commercial (deep-sea) fishing for the importation of fishing gear and equipment. 2) Operational loans which are available to fishpond operators. 3) Amelioration loans which include time loans for foreshore fishing and small loans for fishermen as per Board Resolution No. 471 of June 14, 1967.

The Central Bank lends money to rural banks taken from a credit line with the International Bank for Reconstruction and Development (IBRD) at 6.5 percent interest per annum. In turn, the rural banks lend this amount to end-users for the specific purpose of financing agricultural projects which includes fisheries. The amortization period of the loan is 10 years.

The government provides this favorable climate as an incentive for the private sector to carry out their fishing ventures.

## The Census of Fisheries

A comprehensive information on the structure of the fishing industry is hoped to be availed of through the Census of Fisheries conducted last April, 1971 by the Bureau of the Census and Statistics. Legally provided for by Commonwealth Act No. 591, this undertaking hopes to furnish the government and the private sector the necessary quantitative information which can be used for administration and policy making and for many aspects of social and economic planning.

The 1970 Census of Fisheries was the first undertaken in the country covering all fishing establishments; i.e., establishments engaged in fishing with the use of vessels of more than three tons gross and those operating fishponds. It aims to determine the number and distributions of households and enterprises engaged in fishing. (Fishing is the catching, gathering and culturing of fish, crustaceans, mollusks and all other aquatic animals and plants in marine brackishwater and freshwater for the purpose of this census). The census will provide information on the types of fishing activities engaged in by fishing households and fishing establishments, the number of persons engaged in fishing, number and type of fishing boats and fishing gears used, area of fishponds and the quantity and value of production of all types of fishing activities undertaken.

The government needs this information for planning fishery development programs geared to improve the productivity of our fishery units; the business sector needs this data in determining investments; those in the fishing industry use the census data in planning their production and in marketing their fishery products; students, research organizations and the general public are interested in information about our fishery units and the people dependent on them. These needs are expected to be adequately met through the information that will be derived from the census.

## Fisheries Development Program

Through the Philippine Fisheries Commission (PFC), the Philippine government launched an expanded fisheries development program aimed at attaining self-sufficiency in fish by 1972. In order to attain this end, the Philippine Fisheries Commission is undertaking a massive fish fingerling production and stocking dispersal program in inland waters; expanded extension services and manpower training on the modern and efficient techniques of fishpond management and fish capture operations; construction of infrastructures such as fishing ports and harbors, establishments of wholesale fish market terminals and fish refrigeration units; intensification of research and survey activities of the Philippine fishery resources and the scientific methods of exploiting them, rigid enforcement of fishery laws, rules and regulations and strengthening of fisheries administration.

In order to effect a faster development of the commercial fisheries sector, the PFC undertakes a continuing survey of fishing grounds and the marine, biological and oceanographic surveys. Through its five fishing demonstration vessels, its trained men renders demonstrations in modern and improved fishing techniques, experimental fishing surveys, exploration and others. They also offer technical assistance in the design and construction of fishing nets and other gears; in determining the adaptability of a fishing gear to a fishing locality, and in improved and mechanized fishing and other phases of deep sea fishing.

Areas where surveys and experimental fishing were undertaken where:

Mindanao Sea  
Samar and Visayan Sea  
Ragay Gulf  
Tayabas Bay  
Visayan Sea and vicinities  
Lubang Island  
Manila Bay  
Sibuguey Bay  
Zamboanga Waters  
Sulu Sea  
Celebes Sea

Quezon Province  
Masbate & vicinities  
Pilar Bay  
Paluan Bay and vicinities  
Iloilo Waters  
Palawan Waters  
Mindoro Island  
Panay Gulf  
Corregidor and vicinities  
Puerto Galera  
San Jose, Antique

Water pollution surveys are also undertaken in order to determine the extent and the effects of the waste coming from commercial and industrial establishments. Result of these surveys are presented as court evidences on the pollution cases filed against the establishments concerned. It is hoped that with the findings of the commission, means could be derived to minimize the adverse effects of pollution.

To increase the production per unit area of fishponds, improved farming techniques are incorporated in the fishponds development program of the PFC. These farming techniques are perfected by applied research of the Filipino traditional and Taiwanese culturing methods. Demonstration on induced spawning of Asiatic carps and freshwater catfish are also given by trained men of the commission.

Fishery researches designed to explore efficient and scientific methods of utilizing our fishery resources include biological investigations of important commercial fishes, oceanographic surveys of major fishing grounds and researches on fish culture and fish processing. Specific researches undertaken on fish biology included chemical studies of Philippine fishes and crustaceans, their chemical composition and nutritional value; shrimp culture, seaweeds study and experiments on induced spawning and pond fertilization. Fish utilization researches are continuously conducted by fishery technicians on the improvement and development of fish handling practices in the Philippines which includes the temperature assessment of fish at all stages in the distribution chain; improvement and development of traditional fish products

particularly studies on the improvement of dried fish and salted products; improvement of fish containers and methods of packaging used in the handling, processing, marketing and distribution of fish products; processing and cold storage of fish and fishery products; studies on the preparation of fish protein concentrates from cheap species of Philippine market fishes; and studies on the manufacture of leather from common shark skin. It has been found out that Lizard fish (Kalaso), a specie of low commercial value contain about 90 percent protein and can be used in the preparation of fish protein concentrates. Research work in the manufacture of leather from common shark skin revealed the impossibility of giving a general rule for the tanning of all types of shark skin because of the wide differences among the shark species.

With the unceasing and energetic efforts of the government and private sector engaged in the industry, an output which would meet the consumption requirement of the country and still provide for our export market abroad is hoped to be achieved, but not at the expense of the depletion of our fish resources.

## CHAPTER XIV — MINES AND MINERALS

### HISTORY OF MINING IN THE PHILIPPINES

Philippine mining dates back to a long time before the discovery of the Philippines in 1521 by Magellan. Trade in copper existed between the Chinese mainland and the Philippines since prehistoric times. Gold was panned from placer sands in Paracale (Camarines Norte) and other alluvial deposits in various regions of the country before the sixteenth century. Pottery-making was also known to be widespread in most of the regions many centuries ago.

When the Spanish explorers arrived in the country, they were chiefly interested in gold. This interest resulted in the development of rich veins in the country's known gold mines. Early records show that considerable shipments of gold bullions were sent to Spain.

The manufacture of clay pottery was a household industry, too, at that time. Brick-making was introduced during the early Spanish regime to provide material for the construction of churches, military installations, and other structures. The smelting of iron ore on a limited scale was also reported in Angat, Pampanga and Marilao, Bulacan, where iron was produced in crude furnaces and cast into plowshares, plowpoints, and various kitchen utensils.

When the Americans came over at the turn of the century, work in the existing mines was intensified. As a result, production in the gold mines of the Mountain Province, Masbate, and Surigao, and in the Lepanto copper mine expanded considerably and gave a healthy boost to the search for other minerals after the establishment of the Philippine Bureau of Mines.

### The Philippine Mining Industry

The Philippines may be ranked as one of the most highly mineralized areas in this part of the world in relation to its size and geographical distribution. Philippine mining had its real start in 1938 when the value of the country's mineral production reached a high record of ₱75.2 million. Since then, the industry has been a big contributor to the national economy in terms of foreign exchange, employment opportunities, and other benefits at the local and national levels. Not all the possible mineralized places or mineral bearing areas of the country have, however, been adequately explored. As of 1968, as shown in Fig. XIV.1, the geological surveys by the Bureau of Mines covered only about 14.08 million hectares, or 47.03 percent of the total land area of 29.94 million hectares.<sup>1/</sup> Of the total combined area surveyed, only 7.74 percent has been surveyed in detail or semi-detail, while 92.26 percent was merely done on reconnaissance.

### Principal Deposits and Productive Mines

The principal mineral commodities in FY 1968-69 and 1969-70 in the country include fifteen (15) metallic and twenty (20) non-metallic minerals. Among the metallic minerals are cadmium, chromium, copper, gold, iron, lead, manganese, mercury, molybdenum, nickel, palladium, pyrite, silver and zinc, while the non-metallic include asbestos, barite, clay, coal, construction materials, diatomite, feldspar, guano, gypsum, limestone, magnesite, marble, natural gas perlite, petroleum, rock asphalt, rock phosphate, silica, sulphur and talc.

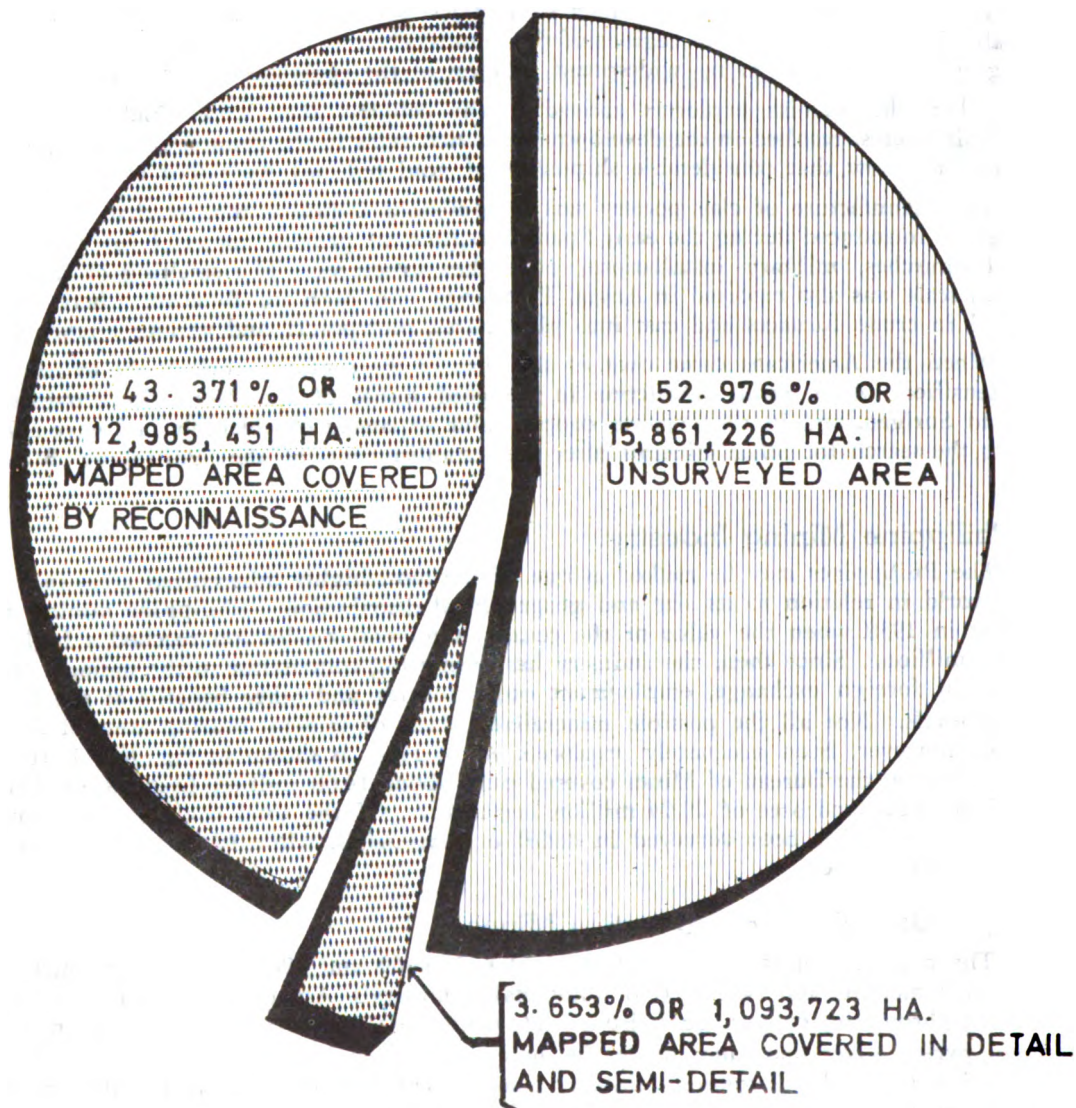
Base metals constitute the strong and expanding mainstay of Philippine mining. Lately, however the well established companies are pursuing spirited expansion activities, especially in copper which has largely swelled production value of base metals to a point where it is close to 66 percent of the total base metal production.

Based on the FY 1969-70 production figures, the important mineral deposits in each province is shown in Table XIV.1, briefly summarized as metallic and non-metallic.

<sup>1/</sup> Bureau of Mines measurement of the total area of the Philippines against the round figure of 30,000,000 hectares as mentioned in other chapters.



FIGURE XIV.1  
GEOLOGICAL MAPPING IN THE PHILIPPINES: FY 1968



SOURCE: BUREAU OF MINES  
THE PHILIPPINE MINING INDUSTRY, 1968

**Table XIV.1 — Quantity and Value of Mineral Production in the Philippines, by Province: FY 1969-1970**

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
<b>Philippines</b>				<b>P1,513,916,579</b>
1. <i>Abra</i>	13			68,594
Non-Metallics				68,594
Pottery		pc.	1,000	1,216
Bricks		pc.	166,140	53,228
Stones, cobbles & boulders		Cu. M.	1,364	8,570
Coral rocks, crushed		Cu. M.	650	1,580
Other construction materials		M.T.	400	4,000
2. <i>Aklan</i>	12			452,551
Non-Metallics				452,551
Bricks		pc.	342,916	116,590
Salt		M.T.	1,513	200,224
Pottery		pc.	19,000	7,232
Sand, gravel & earth		Cu. M.	28,581	122,905
Guano		M.T.	200	5,600
3. <i>Agusan</i>				249,730
Metallics				249,730
Met. Manganese ore		D.M.T.	1,994	294,730
4. <i>Albay</i>	17			186,300
Non-Metallics				186,300
Pottery		pc.	923	200
Sand, gravel & earth		Cu. M.	923	49,157
Stones, cobbles & boulders		Cu. M.	5,413	30,098
Lime for other uses		M.T.	317	17,406
Coral rocks, crushed		Cu. M.	12,816	89,419
5. <i>Antique</i>	22			197,071
Non-Metallics				197,071
Pottery		pc.	4,680	1,844
Sand, gravel & earth		Cu. M.	6,668	31,310
Bricks		pc.	170,172	54,228
Tiles		pc.	64,000	5,760
Salt		M.T.	602	78,060
Stones, cobbles & boulders		Cu. M.	3,306	19,836
Other ceramic products		pc.	100	150
Coral rocks, crushed		Cu. M.	30	150
Guano		M.T.	20	920
Red clay		M.T.	100	300
Other clays		M.T.	30	90
Other construction materials		M.T.	2,498	4,423
6. <i>Apayao-Kalinga</i>	3			5,372
Non-Metallics				5,372
Pottery		pc.	19,000	5,372

Province	Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
7.	<i>Bataun</i>	13			<b>₱1,439,241</b>
	Metallics				1,100,392
	Pyrite cinders		D.M.T.	62,519	1,100,392
	Non-Metallics				338,849
	Sand, gravel & earth		Cu. M.	71,001	305,527
	Stones, cobbles & boulders		Cu. M.	5,157	33,322
8.	<i>Batanes</i>	4			217
	Non-Metallics				217
	Pottery		pc.	378	67
	Salt		M.T.	1	150
9.	<i>Batangas</i>	19			1,541,616
	Non-Metallics				1,541,616
	Pottery		pc.	30,130	6,332
	Salt		M.T.	2,665	324,700
	Gypsum, natural		M.T.	3,500	221,490
	Bricks		pc.	657,328	543,900
	Other clays		M.T.	388	25,510
	Sand, gravel & earth		Cu. M.	79,206	350,738
	Coral rocks, crushed		Cu. M.	2,000	8,000
	White clay		M.T.	544	29,178
	Other ceramic products		pc.	1,000	280
	Rock clay		M.T.	955	31,488
10.	<i>Benguet</i>	22			359,558,263
	Metallics				358,043,893
	Gold		oz.	504,679	106,803,964
	Silver		oz.	837,474	6,026,980
	Copper (metal)		M.T.	42,294	238,993,653
	Zinc (metal)		M.T.	3,177.30	4,007,673
	Iron ore		D.M.T.	54,569	2,211,623
	Non-Metallics				1,514,370
	Sand, gravel & earth		Cu. M.	9,716	54,096
	Stones, cobbles & boulders		Cu. M.	4,926	27,848
	Quicklime		M.T.	6,743	414,052
	Lime for industries		M.T.	7,639	110,949
	Silica sand		M.T.	80,655	896,221
	Slaked or hydrated lime		M.T.	1,784	10,704
	Other construction materials		M.T.	100	500
11.	<i>Bobol</i>	33			1,188,858
	Non-Metallics				1,188,858
	Sand, gravel & earth		Cu. M.	158,944	791,220
	Stones, cobbles & boulders		Cu. M.	23,400	86,520
	Phosphate rock		M.T.	500	40,000
	Other construction materials		M.T.	100	700
	Limestone for agriculture		M.T.	1,100	8,000
	Pottery		pc.	98,813	10,744
	Guano		M.T.	524	30,840
	Other ceramic products		pc.	42,890	25,034

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
Coral rocks, crushed		Cu. M.	22,400	136,800
Lime for shells		M.T.	20	3,500
Marble unprocessed		M.T.	600	48,000
Lime for industries		M.T.	500	7,500
12. <i>Bulacan</i>	24			87,313,481
Non-Metallics				87,313,481
Adobe: broken		Cu. M.	65,800	411,600
dimension		pc.	37,000	30,360
Pottery		pc.	86,000	13,642
Tiles		pc.	78,476,171	7,847,617
Sand, gravel & earth		Cu. M.	1,027,563	5,137,815
Guano		M.T.	250	8,000
Other clays		M.T.	104,226	472,746
White clay		M.T.	2,187	165,610
Limestone for cement mfg.		M.T.	(1,304,586)	(3,845,172)
Lime for industries		M.T.	11,546	394,186
Silica sand		M.T.	156,628	1,042,959
Salt		M.T.	108,489	11,372,520
Cement		Bbl.	4,793,346	59,040,440
Rock clay		M.T.	2,154	96,599
Lime for other uses		M.T.	7,818	67,931
Marble, processed		M.T.	2,524	531,998
Feldspar		M.T.	2,545	149,791
Limestone for agriculture		M.T.	6,449	173,171
Marble, processed		Sq. M.	8,079	356,496
13. <i>Bukidnon</i>	5			47,430
Non-Metallics				47,430
Asbestos		M.T.	7	1,500
Sand, gravel & earth		Cu. M.	8,624	43,593
Coral rocks, crushed		Cu. M.	530	2,337
14. <i>Cagayan</i>	15			552,239
Non-Metallics				552,239
Sand, gravel & earth		Cu. M.	55,296	272,054
Stones, cobbles & boulders		Cu. M.	44,200	269,000
Sulphur		M.T.	40	11,185
15. <i>Camarines Norte</i>	5			31,157,622
Metallics				31,060,708
Gold		oz.	8,392	1,993,800
Silver		oz.	8,631	69,686
Iron ore		D.M.T.	748,459	28,890,516
Lead (metal)		M.T.	56.65	74,213
Copper (metal)		M.T.	6.65	32,493
Non-Metallics				
Sand, gravel & earth		Cu. M.	18,230	87,680
Diatomaceous earth		M.T.	111	3,534
Stones, cobbles & boulders		Cu. M.	700	5,700

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
16. <i>Camarines Sur</i>	20			151,253
Non-Metallics				151,253
Sand, gravel & earth		Cu. M.	14,303	84,317
Stones, cobbles & boulders		Cu. M.	7,359	52,951
Pottery		pc.	2,900	4,405
Misc. fertilizer		M.T.	20	6,080
Lime for shells		M.T.	182	2,000
Lime for industries		M.T.	19	1,500
17. <i>Capiz</i>	8			139,074
Non-Metallics				139,074
Sand, gravel & earth		Cu. M.	28,904	139,074
18. <i>Catanduanes</i>	7			28,568
Non-Metallics				28,568
Sand, gravel & earth		Cu. M.	3,060	19,972
Stones, cobbles & boulders		Cu. M.	1,460	8,596
19. <i>Cavite</i>	13			1,305,312
Non-Metallics				1,305,312
Sand, gravel & earth		Cu. M.	61,840	369,821
Salt		M.T.	9,355	935,500
20. <i>Cebu</i>	37			375,795,797
Metallics				333,580,283
Gold		oz.	28,612	5,599,570
Silver		oz.	162,721	1,381,398
Copper (metal)		M.T.	45,462	320,978,848
Iron ore		D.M.T.	128,545	4,881,569
Pyrite cinders		D.M.T.	40,616	738,898
Non-Metallics				42,215,514
Pottery		pc.	36,564	7,893
Tiles		pc.	400	136
Other clays		M.T.	1	12
Various ceramic products		pc.	200	64
Sand, gravel & earth		Cu. M.	28,219	115,431
Limestone for cement mfg.		M.T.	(228,692)	(1,427,134)
Pyrite		M.T.	(145,328)	(6,672,012)
Misc. fertilizers		M.T.	64,605	22,797,505
Salt		M.T.	4,282	554,810
Dolomite		M.T.	5,912	213,517
Gypsum: Synthetic		M.T.	15,689	470,676
Cement		Bbl.	1,307,730	16,806,137
Coal		M.T.	52,587	1,248,729
Stones, cobbles & boulders		Cu. M.	74	592
Red clay		M.T.	1	12
21. <i>Cotabato</i>	7			1,323,314
Non-Metallics				1,323,314
Sand, gravel & earth		Cu. M.	305,000	1,230,000

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
Other clays		M.T.	17,640	23,814
Stones, cobbles & boulders		Cu. M.	8,650	63,200
Tiles		pc.	13,000	3,900
Other ceramic products		pc.	1,500	2,400
22. <i>Davao Del Norte</i>	11			14,158,054
Metallics				13,682,031
Gold		oz.	5,790	1,259,421
Silver		oz.	12,108	107,670
Copper (metal)		M.T.	1,695	12,314,940
Non-Metallics				486,023
Sand, gravel & earth		Cu. M.	54,182	273,560
Stones, cobbles & boulders		Cu. M.	894	6,663
Marble, processed		Sq. M.	2,940	205,800
23. <i>Davao Oriental</i>	5			107,709
Non-Metallics				107,709
Sand, gravel & earth		Cu. M.	15,238	78,514
Stones, cobbles & boulders		Cu. M.	4,626	28,927
Adobe: broken		pc.	179	268
24. <i>Eastern Samar</i>	12			37,417
Non-Metallics				37,417
Sand, gravel & earth		Cu. M.	3,670	23,305
Stones, cobbles & boulders		Cu. M.	1,217	8,322
Coral rocks, crushed		Cu. M.	965	5,790
25. <i>Ifugao</i>	7			24,827
Non-Metallics				24,827
Sand, gravel & earth		Cu. M.	212	2,280
Stones, cobbles & boulders		Cu. M.	4,140	22,547
26. <i>Ilocos Norte</i>	18			213,539
Non-Metallics				213,537
Pottery		pc.	28,743	7,420
Stones, cobbles & boulders		Cu. M.	129	840
Sand, gravel & earth		Cu. M.	31,731	145,914
Feldspar		M.T.	600	49,903
Salt		M.T.	60	9,460
27. <i>Ilocos Sur</i>	24			153,785
Non-Metallics				153,785
Pottery		pc.	3,048	1,856
Sand, gravel & earth		Cu. M.	14,925	74,625
Salt		M.T.	323	41,360
Coral rocks, crushed		Cu. M.	350	875
Feldspar		M.T.	365	35,069
28. <i>Iloilo</i>	30			2,166,563
Non-Metallics				2,166,563
Pottery		pc.	21,709	7,291
Sand, gravel & earth		Cu. M.	134,794	635,546

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
White clay		M.T.	485	19,228
Limestone for cement mfg.		M.T.	(18,132)	(82,327
Cement		Bbl.	99,597	1,388,167
Salt		M.T.	368	46,780
Bricks		pc.	163,332	66,290
Tiles		pc.	32,247	2,596
Feldspar		M.T.	7	665
29. <i>Isabela</i>	15			360,993
Metallics				300,300
Met., Chem. manganese ore		D.M.T.	1,049	99,450
Manganiferous ore		D.M.T.	869	27,450
Copper (metal)		M.T.	43	173,400
Non-Metallics				60,693
Pottery		pc.	7,281	3,038
Sand, gravel & earth		Cu. M.	9,541	57,305
Stones, cobbles & boulders		Cu. M.	50	350
30. <i>La Union</i>	12			49,837,498
Metallics				17,378,879
Iron ore			529,454	17,378,879
Non-Metallics				32,458,619
Sand, gravel & earth		Cu. M.	27,120	174,641
Limestone for cement mfg.		M.T.	(495,810)	586,013
Coral rocks, crushed		Cu. M.	4,100	27,774
Pottery		pc.	4,192	1,722
Salt		M.T.	65	8,840
Cement		Bbl.	2,486,701	32,245,642
31. <i>Laguna</i>	16			449,428
Non-Metallics				449,428
Sand, gravel & earth		Cu. M.	32,384	169,270
White clay		M.T.	244	10,973
Pottery		pc.	16,300	4,294
Coral rocks, crushed		Cu. M.	41,468	262,110
Other clays		M.T.	46	2,781
32. <i>Lanao Del Norte</i>	17			15,852,732
Non-Metallics				15,852,732
Pottery		pc.	5,645	1,567
Bricks		pc.	267,517	113,118
Sand, gravel & earth		Cu. M.	50,810	254,050
Quicklime		M.T.	213	19,872
Carbide		M.T.	8,378	4,355,798
Alloys		M.T.	1,021	1,147,602
Lime for industries		M.T.	51,045	247,396
Limestone for agriculture		M.T.	2,933	10,894
Cement		Bbl.	731,644	9,506,616
Silica sand		M.T.	10,059	193,706
Slaked & hydrated lime		M.T.	67	2,113

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
33. <i>Leyte</i>	31			755,602
Non-Metallics				755,602
Pottery		pc.	14,199	6,875
Coral rocks, crushed		Cu. M.	1,600	8,100
Sand, gravel & earth		Cu. M.	125,290	649,020
Stones, cobbles & boulders		Cu. M.	4,740	25,200
Salt		M.T.	250	28,974
Bricks		pc.	124,524	37,433
34. <i>Marinduque</i>	3			187,322,561
Metallics				187,322,561
Gold		oz.	28,746	4,832,484
Silver		oz.	158,237	1,190,208
Copper (metal)		M.T.	28,234	181,299,869
35. <i>Masbate</i>	6			170,528
Non-Metallics				170,528
Sand, gravel & earth		Cu. M.	28,451	153,635
Coral rocks, crushed		Cu. M.	770	4,244
Stones, cobbles & boulders		Cu. M.	1,962	12,649
36. <i>Misamis Occidental</i>	8			86,855
Non-Metallics				86,855
Pottery		pc.	26,386	26,405
Sand, gravel & earth		Cu. M.	10,700	60,450
37. <i>Misamis Oriental</i>	14			190,064
Non-Metallics				190,064
Sand, gravel & earth		Cu. M.	35,630	185,802
Tiles		pc.	47,360	4,262
38. <i>Mt. Province</i>	6			23,972
Non-Metallics				23,972
Stones, cobbles & boulders		Cu. M.	3,782	23,972
39. <i>Negros Occidental</i>	14			118,923,596
Metallics				117,164,413
Gold		oz.	2,822	466,480
Silver		oz.	89,333	748,375
Copper (metal)		M.T.	19,336	115,649,381
Molybdenum (metal)		M.T.	23.90	300,177
Non-Metallics				1,255,831
Pottery		pc.	13,343	7,499
Tiles		pc.	107,077	74,848
Sand, gravel & earth		Cu. M.	88,746	503,352
Stones, cobbles & boulders		Cu. M.	5,054	32,618
Guano		M.T.	20	816
Limestone for agriculture		M.T.	13,800	345,000
Salt		M.T.	1,826	243,512
Other ceramic products		pc.	60,922	13,986
Bricks		pc.	185,000	34,200



Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
40. <i>Negros Oriental</i>	17			704,338
Non-Metallics				704,338
Bricks		pc.	172,706	70,720
Pottery		pc.	9,321	3,699
Sand, gravel & earth		Cu. M.	28,092	139,376
Salt		M.T.	2,036	268,255
Silica sand		M.T.	6,736	222,288
41. <i>Northern Samar</i>	7			197,039
Non-Metallics				197,039
Stones, cobbles & boulders		Cu. M.	1,400	8,400
Sand, gravel & earth		Cu. M.	18,380	94,039
Coral rocks, crushed		Cu. M.	3,810	24,255
Adobe dimension		M.T.	674	69,145
42. <i>Nueva Ecija</i>	14	pc.	2,000	1,200
Non-Metallics				462,519
Sand, gravel & earth				462,519
Stones, cobbles & boulders		Cu. M.	63,809	319,045
Feldspar		M.T.	1,364	101,269
Coral rocks, crushed		Cu. M.	360	2,160
Pottery		pc.	13,418	5,377
Bricks		pc.	17,000	4,050
43. <i>Nueva Vizcaya</i>	10			154,062
Non-Metallics				154,062
Sand, gravel & earth		Cu. M.	28,466	150,557
Pottery		pc.	8,471	3,505
44. <i>Occidental Mindoro</i>	9			6,394,453
Non-Metallics				6,394,453
Talc		M.T.	326	27,583
Sand, gravel & earth		Cu. M.	23,047	115,754
Salt		M.T.	49,316	5,887,840
Marble, processed		Sq. M.	8,079	356,496
Silica sand		M.T.	339	6,780
45. <i>Oriental Mindoro</i>	7			114,884
Non-Metallics				114,884
Sand, gravel & earth		Cu. M.	15,602	80,182
Stones, cobbles & boulders		Cu. M.	4,000	24,000
Salt		M.T.	117	10,082
Other ceramic products		pc.	2,400	620
46. <i>Palawan</i>	5			17,040,437
Metallics				14,521,530
Quicksilver (metal)		Flask	3,909.70	5,934,204
Copper (metal)		M.T.	1,809.80	5,934,204
Non-Metallics				2,519,507
Silica sand		Cu. M.	110,550	2,443,605
Dolomite		M.T.	1,398	40,104
Salt		M.T.	413	35,798

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
47. <i>Pampanga</i>	16			2,782,337
Non-Metallics				2,745,337
Tiles		pc.	2,334,780	234,478
Stones, cobbles & boulders		Cu. M.	47,000	342,000
Sand, gravel & earth		Cu. M.	119,364	607,710
Other clays		M.T.	2,128	6,899
Feldspar		M.T.	12,456	231,197
Silica sand		M.T.	8,742	4,975
Bricks		pc.	5,367,499	1,110,918
Lime for industries		M.T.	7,031	196,265
Other construction materials		M.T.	500	1,600
Red clay		M.T.	11,618	9,295
48. <i>Pangasinan</i>	26			6,260,904
Metallics				1,634,975
Copper (metal)		M.T.	824	1,634,975
Non-Metallics				3,795,471
Pottery		pc.	104,284	24,161
Bricks		pc.	205,000	71,560
Sand, gravel & earth		Cu. M.	436,506	2,182,630
Salt		M.T.	12,702	1,517,120
49. <i>Quezon</i>	24			3,584,301
Metallics				430,000
Iron ore		D.M.T.	221,043	430,000
Non-Metallics				3,154,301
Sand, gravel & earth		Cu. M.	158,159	796,139
Stones, cobbles & boulders		Cu. M.	8,708	50,548
Coral rocks, crushed		Cu. M.	1,334	6,342
Quicklime		M.T.	10,485	964,342
Lime for industries		M.T.	20,773	103,513
Limestone for agriculture		M.T.	3,573	69,653
Slaked & hydrated lime		M.T.	9,875	841,330
Silica sand		M.T.	15,457	313,478
White clay		M.T.	124	7,440
Adobe, broken		pc.	74	844
Guano		M.T.	16	608
50. <i>Rizal</i>	19			95,180,340
Non-Metallics				95,180,340
Sand, gravel & earth		Cu. M.	1,439,661	7,148,491
Limestone for agriculture		M.T.	3,866	110,522
Feldspar		M.T.	265	41,291
Cement		Bbl.	6,583,795	76,068,986
Limestone for cement mfg.		M.T.	(1,417,426)	(5,498,781)
Lime for industries		M.T.	49,542	1,443,939
Other clays		M.T.	97,889	443,211
White clay		M.T.	3,599	285,198
Silica sand		M.T.	180,739	1,594,819
Tiles		pc.	63,715,413	6,370,541
Tuff		M.T.	170,649	17,148

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
Dolomite		M.T.	1,649	96,199
Lime for other uses		M.T.	206	2,370
Talc		M.T.	748	98,515
Adobe, broken		Cu. M.	4,740	19,208
Salt		M.T.	14,420	1,442,000
Coral rocks, crushed		Cu. M.	1,317	7,902
51. <i>Romblon</i>	13			427,953
Non-Metallics				427,953
Marble, processed		Cu. M.	8,079	356,496
Marble, unprocessed		M.T.	264	65,437
Stones, cobbles & boulders		Cu. M.	860	6,020
52. <i>Sorsogon</i>	11			280,316
Non-Metallics				280,316
Pottery		pc.	7,706	3,728
Sand, gravel & earth		Cu. M.	51,516	276,588
53. <i>Southern Cotabato</i>	8			46,312
Non-Metallics				46,312
Sand, gravel & earth		Cu. M.	4,657	27,942
Salt		M.T.	134	18,370
54. <i>Southern Leyte</i>	6			21,907
Non-Metallics				21,907
Sand, gravel & earth		Cu. M.	3,909	21,907
55. <i>Sulu</i>	1			289
Non-Metallics				289
Pottery		pc.	568	194
Stones, cobbles & boulders			7	95
56. <i>Surigao Del Norte</i>	16			8,516,107
Non-Metallics				8,516,107
Cement		Bbl.	570,386	7,597,777
Limestone for cement mfg.		M.T.	74,653	(115,797)
Silica sand		M.T.	53,889	514,145
Sand, gravel & earth		Cu. M.	84,853	404,185
57. <i>Surigao Del Sur</i>	7			321,556
Non-Metallics				321,556
Sand, gravel & earth		Cu. M.	69,478	315,898
Pottery		pc.	5,639	1,658
Coral rocks, crushed		Cu. M.	400	2,400
Adobe, dimension		pc.	8,000	1,600
58. <i>Tarlac</i>	15			621,069
Non-Metallics				621,069
Pottery		pc.	11,476	4,263
Sand, gravel & earth		Cu. M.	75,856	370,430
Marble, unprocessed		M.T.	2,392	246,376

Province Mineral/Mineral Product	No. of Establish- ments Reporting	Unit	Quantity	Value in Peso
59. <i>Western Samar</i>	17			61,027,988
Metallics				60,850,534
Gold		oz.	4,568	753,861
Silver		M.T.	392,416	3,206,406
Copper		M.T.	11,107	56,890,267
Non-Metallics				177,454
Sand, gravel & earth		Cu. M.	28,756	141,080
Stones, cobbles & boulders		Cu. M.	2,500	15,000
Coral rocks, crushed		Cu. M.	2,154	21,374
Pyrite		M.T.	71,524	2,639,811
60. <i>Zambales</i>	6			47,100,081
Metallics				46,490,967
Met. Chromite ore		D.M.T.	106,375	8,242,784
Ref. Chromite ore		D.M.T.	420,061	38,248,183
Non-Metallics				609,114
Pottery		pc.	23,668	10,856
Sand, gravel & earth		Cu. M.	105,814	455,639
Talc		M.T.	977	113,918
Salt		M.T.	210	28,701
61. <i>Zamboanga Del Norte</i>	12			380,038
Non-Metallics				380,038
Sand, gravel & earth		Cu. M.	52,435	255,963
Coral rocks, crushed		Cu. M.	1,500	22,500
Tiles		pc.	56,500	8,874
Other clays		M.T.	45	2,723
Stones, cobbles & boulders		Cu. M.	4,989	33,669
Various ceramic products		pc.	261,059	56,309
62. <i>Zamboanga Del Sur</i>	18			8,749,723
Metallics				8,314,420
Iron ore		D.M.T.	176,710	7,886,693
Met. Manganese ore		D.M.T.	3,154	427,727
Non-Metallics				435,303
Sand, gravel & earth		Cu. M.	55,332	374,262
Stones, cobbles & boulders		Cu. M.	4,000	29,222
Coral rocks, crushed		Cu. M.	1,462	31,819

Source: Mineral News Services, FY 1969-1970

Copper is widespread in the Philippines. The most important copper deposits are found in Cebu, Negros Occidental, Marinduque, Benguet, Samar, and Davao del Norte.

The chief gold deposits are located in Benguet (Mt. Province district), Paracale, Jose Panganiban (Camarines Norte) district, Masbate district, Bulacan and Surigao districts. However, the last three districts are not currently productive. The gold mines with biggest reserves are located in the Mt. Province district where most of the 1970 production originated. Of the six productive gold and silver mines in 1970, five are located in the Mt. Province district and one in Camarines Norte.

Iron deposits of different types occur generally in almost all localities. The principal iron deposits of the pyrometamorphic type are found in Camarines Norte, Zamboanga del Sur, Rizal, Davao, and Mindanao Island. The largest iron reserves, however, are of the nickeliferous lateritic type located in Surigao, Davao and Samar. Another source of iron ore is the titaniferous magnetite sand deposits found in a good number of Philippine beaches, particularly in La Union and Quezon. Iron ore production comes from the different areas of Camarines Norte, Zamboanga del Sur, and La Union.

The iron industry in the Philippines performed sluggishly a few years back, but quite recently there are strong signs of recovery. Contributing much to its improved performance are the expansion programs and the proliferation of pellet feed, beach sands, magnetite fines from pyrite tailings of copper flotation melts.

Chrome major deposits as well as the biggest refractory ore are found in Zambales, while lesser deposits are found in Mindoro Occidental. Deposits of the metallurgical type of chromite also occur in Zambales, Palawan, and Camarines Sur, but the bulk of the production of both types of chromite ore comes from Zambales. These two types of chrome products are presently produced in the Philippines, namely, metallurgical and refractory ores. The refractory ore is almost a monopoly of this country, and it finds growing markets all over the world, such as Brazil, Argentina, Holland, Belgium, Italy, Scotland, England, and Canada. The United States of America is the principal market, while a domestic outlet is rapidly being developed. The metallurgical variety on the other hand, is absorbed largely by Japan. However, there were times in the past when good-grade lump ores were shipped to the United States and other countries.

Silver mostly occur with gold and to some extent with copper and/or copper-zinc deposits. However, in Looc, Batangas silver occurs with lead and in Bislig, Surigao, it comes with barite. Silver production is from the copper mines in Cebu, Samar, Davao, Negros Occidental Mt. Province and the gold mines of Baguio and Paracale-Gumaus districts.

Most of manganese deposits occur in Palawan, Negros Oriental, Bohol, Tarlac, Samar, Masbate, and Isabela, but the production for 1970 came from Sierra Madre, Isabela. Battery-grade manganese for dry cell manufacture comes from Zamboanga del Sur.

Lead and zinc are combined with gold and copper ores except those in the deposits being worked at Batangas and Zamboanga City. Lead and/or zinc are at present co-products in the milling of gold and copper ores. Molybdenum, on the other hand, occurs in Negros Occidental and is associated with copper and is produced as a by-product in the concentration of copper ores by flotation, while nickel is associated with metallurgical chromite in a Zambales deposit. The latter is also found in substantial quantities associated with most laterite deposits in many parts of the country. Platinum and palladium are known to occur only in Zambales, where both are co-products in the concentration of nickel by flotation of metallurgical chromite. Another metallic mineral, cadmium, is produced as a co-product in the milling of the complex gold-silver-zinc ores of a primary gold producer in the Baguio district.

Construction materials such as gravel, sand, earth, coral, rocks, boulder, and stones, are found in abundant quantities throughout the country, but owing to the distance of many deposits from the centers of population, production is confined to areas near the cities and bigger towns.

Pyrite deposits occur in Bataan and Cebu. Pyrite is also produced as a by-product in the copper operations in western Samar and other areas such as Albay, Antique, Surigao, and Camarines Sur.

Guano and rock phosphate are found in limestone caves in nearly every province. The bigger deposits, however, are in Zambales, Negros Occidental, Bohol, and Pangasinan. Actual production of guano and phosphate for fertilizer purposes occurs in Bohol and Cebu.

Limestone in inexhaustible quantities is found in the Philippines. The bulk of production is consumed in cement manufacture. A small quantity of limestone for ceramic and industrial or agricultural use comes from Rizal, Bohol, Quezon, Mt. Province, Cebu, Negros Occidental, Camarines Sur, Iloilo, La Union, and Albay.

Barite is associated with copper in Batangas deposits and with silver deposits in Surigao. A few years ago, barite produced in these localities was used in oil drilling exploration.

Marble reserves are sufficiently large to supply local needs plus export requirements to neighboring countries. The biggest marble deposits are found in Romblon, Davao del Norte, Mindoro Occidental, Tarlac, and Antique, while the biggest production comes from Rizal, Romblon, Bulacan, Mindoro Oriental, and Bohol.

Silica extension deposits in the form of beach and alluvial sands are found in Palawan, Quezon, Rizal, Mindoro Occidental, Negros Oriental, Bulacan, Lanao del Norte, and Surigao del Norte. Most production for glass manufacture and other industrial uses come from Palawan. Silica rock and silica sand are found in substantial quantities in Sagay, Negros Occidental. A plant was built to utilize these materials in the manufacture of glass containers. Bull quartz, found in Quezon, is used for ferrosilican manufacture, and the silicas sinter near Baguio City is used as an additive in cement manufactures.

Rock asphalt occurs only in Leyte as bitument impregnated in shales and sandstone. It is used in road construction and similar paving jobs.

Feldspar as a rock is found in Ilocos Norte, Bulacan, Rizal, Iloilo, Mindoro Occidental, and Nueva Ecija and also as detrital fragments in Pampanga river sands. Most of the production for ceramics and glass manufacture comes from Ilocos Norte and Pampanga.

Extensive deposits of dolomitic limestone with high magnesium content are located in Cebu, and are utilized in ceramic and glass manufacture. Other deposits occur in Negros Oriental, Rizal, Bohol, Palawan, and Bulacan. Asbestos occur in several varieties in the country but the commercial variety, chrysolite, is found in Zambales and Pangasinan. Asbestos production in 1970, however, came from Bukidnon.

Gypsum deposits are found in Batangas, Cebu, Camarines Sur, Albay, and Negros Oriental. The gypsum produced for cement manufacture is confined to Batangas. Sulphur elemental deposits are found in Camiguin Island, Cagayan, Cotabato, Davao, Leyte, Misamis Oriental and Sorsogon, but the biggest deposit is located in Negros Oriental. For the present sulphur production used as colorant in glass manufacture comes solely from Cagayan. A big source of this mineral are the pyrites found extensively in Cebu, Albay, and Antique. Sulphur from this source is used for fertilizer manufacture.

Diatomite deposits occur in Cebu, Lanao del Norte, Rizal, Nueva Ecija, and Camarines Norte. Small-scale mining is being undertaken on the better-grade white diatomite in Camarines Norte. The only known magnesite deposit of economic importance is in Davao, although it is at present unproductive.

Coal is found in considerable quantities in the country. The principal deposits are in Quezon, Catanduanes, Albay, Sorsogon, Mindoro, Antique, Negros Occidental, Cebu, Zamboanga del Sur, and Surigao. Production of coal currently comes only from Cebu, and is mostly used for the manufacture of cement and for power generation. A small amount is used for the manufacture of coke.

The biggest deposits of perlite are in Legaspi City, however, similar occurrences have been noted in other volcanic areas.

There are petroleum and natural gas occurrences in many parts of the country. The best discoveries that have been made so far are those of the high gravity oils in Cebu, aggregating a cumulative production of about 890,000 liters.

### **Philippine Mineral Production**

The Philippine mineral production data for all major metallic minerals for fiscal years 1961-62 to 1969-70, as shown in Table XIV.2 and Figure XIV.2, include the quantity and value of precious metals, base metals and important non-metallic minerals.

Table XIV.2 - PHILIPPINE MINERAL PRODUCTION: FY 1961-62 to FY 1969-70

Mineral/Mineral Product	Unit Used	(Values in pesos)					
		FY 1961-62		FY 1962-63		FY 1963-64	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>T o t a l</b>			P 361,625,801		P 405,542,005		P 466,078,089
<b>Metallics:</b>			255,567,000		284,717,061		311,185,542
<b>Precious Metals:</b>			71,193,786		71,512,586		84,787,885
Gold	oz.	427,077	69,297,514	370,892	68,792,279	426,228	81,007,715
Silver	oz.	735,140	1,876,520	660,341	2,703,895	846,118	3,748,096
Platinum	oz.	177	14,438	76	13,101	-	-
Palladium	oz.	225	5,514	62	5,311	-	-
<b>Base Metals:</b>			184,374,102		213,204,475		226,427,653
Cadmium (metal)	M.T.	-	-	14.74	147,925	11.66	117,128
Copper (metal)	M.T.	54,598	103,410,710	59,196	127,421,374	63,309.88	148,404,649
Lead (metal)	M.T.	89	32,186	65.70	48,057	96.21	89,169
Niobium (metal)	M.T.	105	788,319	109.19	927,228	131.56	1,171,299
Nickel (metal)	M.T.	16	58,995	5.97	24,529	-	-
Zinc (metal)	M.T.	1,986	1,497,914	5,609	4,130,231	2,792	2,656,907
Quicksilver (metal)	Flask	3,108	1,798,403	2,543	1,536,903	2,710	1,762,015
<b>Chromite Ore:</b>							
Refractory	D.M.T.	491,262	29,438,002	370,303	22,993,352	405,984	26,714,104
Metallurgical	D.M.T.	130,720	8,377,772	102,717	7,944,406	93,539	5,653,543
Pyrite Cinders	D.M.T.	-	-	14,825	373,966	13,056	274,172
Iron Ore	D.M.T.	1,357,187	37,800,845	1,423,516	46,457,328	1,473,551	45,040,487
<b>Manganese Ore:</b>							
Metallurgical	D.M.T.	14,396	1,175,016	8,302	869,956	2,754	296,614
Battery Grade	D.M.T.	-	-	1,438	329,220	889.9	248,606
<b>Non-metallics:</b>			186,057,913		120,824,944		154,892,547
Cement	Mbl.	5,939,558	69,095,897	5,528,645	70,575,933	6,035,980	88,758,835
Gypsum	M.T.	10,542	421,535	22,711	695,937	37,552	1,054,248
Synthetic or Chemical	M.T.	-	-	-	95,142	2,410	72,276
Natural	M.T.	-	-	-	-	-	-
Coal	M.T.	164,135	3,964,016	171,214	4,390,917	130,988	3,464,578
Rock Asphalt	M.T.	4,999	164,977	9,119	271,907	-	-
Sand, gravel, salt, etc.	M.T.	-	52,461,488	-	44,554,230	-	61,502,610

Mineral/Mineral Product	Unit Used	FY 1964-65		FY 1965-66		FY 1966-67	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>T o t a l</b>			P 516,309,274		P 611,337,387		P 785,833,776
<b>Metallics:</b>			330,642,735		450,536,897		553,459,907
<b>Precious Metals:</b>			87,134,185		87,118,613		106,901,921
Gold	oz.	432,259	85,189,913	436,978	85,075,825	490,665	100,257,179
Silver	oz.	945,778	4,204,272	946,105	4,642,848	1,366,162	6,644,742
Platinum	oz.	-	-	-	-	-	-
Palladium	oz.	-	-	-	-	-	-
<b>Base Metals:</b>			243,248,550		362,618,224		446,557,986
Cadmium (metal)	M.T.	10,565	208,710	8.45	167,698	1.88	51,335
Copper (metal)	M.T.	59,017.50	135,819,089	67,798.29	252,139,771	92,339.87	338,596,786
Lead (metal)	M.T.	110.16	92,063	98.76	128,190	86.75	136,898
Niobium (metal)	M.T.	88.49	1,182,049	50.50	742,656	40.22	674,610
Nickel (metal)	M.T.	-	-	-	-	-	-
Zinc (metal)	M.T.	2,036	2,278,740	1,848	2,223,938	1,548	1,942,763
Quicksilver (metal)	Flask	2,537	4,054,170	2,543	4,233,014	2,561	4,579,364
<b>Chromite Ore:</b>							
Refractory	D.M.T.	397,500	26,167,136	301,910	35,648,671	354,841	26,585,207
Metallurgical	D.M.T.	79,048	5,317,732	104,226	8,149,481	118,549	10,140,444
Pyrite Cinders	D.M.T.	16,894	354,746	19,461	432,740	24,507	633,227
Iron Ore	D.M.T.	1,315,619	44,356,302	1,435,285	54,098,803	1,509,473	58,427,895
<b>Manganese Ore:</b>							
Metallurgical	D.M.T.	34,916	3,385,037	35,487	5,755,806	37,183	3,354,436
Battery Grade	D.M.T.	125.17	33,976	-	-	-	-
Mangiferous	D.M.T.	-	-	16,415	897,476	34,126	1,722,061
<b>Non-metallics:</b>			186,266,539		211,000,490		232,373,869
Cement	Mbl.	8,359,483	125,553,199	9,053,911	136,552,113	10,797,190	156,657,148
Gypsum	M.T.	28,519	895,610	-	-	16,877	949,237
Synthetic or Chemical	M.T.	24,923	747,744	23,756	712,692	-	-
Natural	M.T.	3,596	107,866	1,246	37,369	-	-
Coal	M.T.	96,134	2,578,916	88,949	2,137,440	69,505	1,535,168
Rock Asphalt	M.T.	-	-	-	-	-	-
Salt, gravel, sand, etc.	M.T.	-	57,272,814	-	71,460,876	-	73,632,316

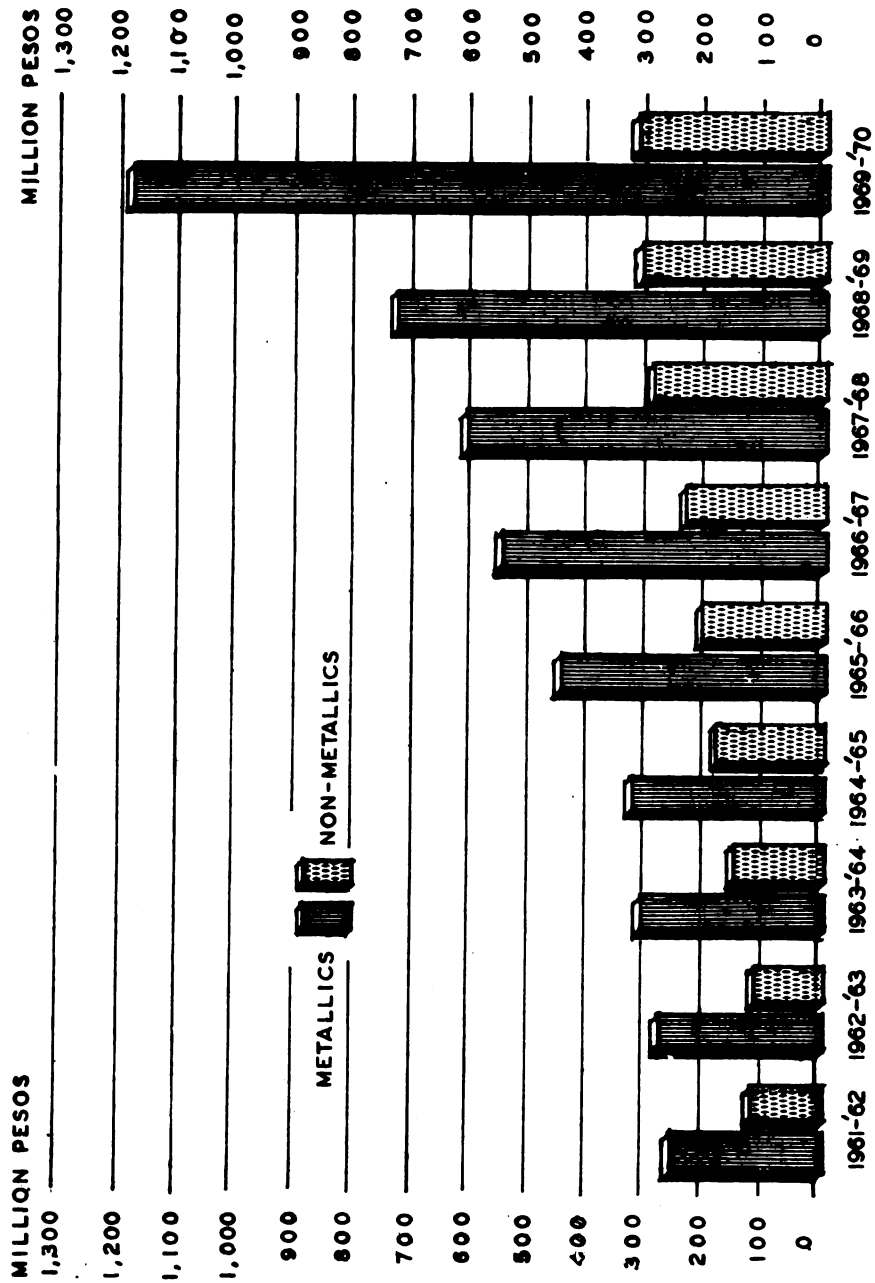
  

Mineral/Mineral Product	Unit Used	FY 1967-68		FY 1968-69		FY 1969-70	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>T o t a l</b>			P 909,179,253		P 1,048,071,055		P 1,513,267,378
<b>Metallics:</b>			616,642,511		731,880,562		1,192,125,616
<b>Precious Metals:</b>			135,722,099		124,558,702		134,440,303
Gold	oz.	505,134	104,925,427	546,315	112,743,372	585,609	121,707,580
Silver	oz.	1,497,457	10,766,672	1,506,779	11,815,330	1,660,920	12,730,723
Platinum	oz.	-	-	-	-	-	-
Palladium	oz.	-	-	-	-	-	-
<b>Base Metals:</b>			500,920,212		607,321,860		1,057,685,313
Cadmium (metal)	M.T.	1,675	36,940	-	-	-	-
Copper (metal)	M.T.	92,261	411,423,973	118,103.88	507,260,211	150,808.45	933,902,030
Lead (metal)	M.T.	97.56	122,155	55.84	65,537	56.65	74,213
Niobium (metal)	M.T.	271.62	373,125	35.46	411,461	23.90	300,177
Nickel (metal)	M.T.	-	-	-	-	-	-
Zinc (metal)	M.T.	1,896.19	1,434,762	2,824.33	3,439,922	3,177.30	4,007,673
Quicksilver (metal)	M.T.	3,123.31	6,142,232	5,505.41	6,875,221	5,909.70	8,587,326
<b>Chromite Ore:</b>							
Refractory	D.M.T.	259,959	19,190,069	338,515	25,337,906	420,061	36,248,183
Metallurgical	D.M.T.	135,406	8,290,756	123,305	8,788,044	108,375	8,242,784
Pyrite Cinders	D.M.T.	28,777	691,920	78,528	1,224,618	107,135	1,839,290
Iron Ore	D.M.T.	1,306,696	48,110,990	1,468,063	50,707,029	1,656,780	61,679,280
<b>Manganese Ore:</b>							
Metallurgical	D.M.T.	44,312	3,544,194	26,222	2,680,524	6,197	776,907
Battery Grade	D.M.T.	-	-	-	-	-	-
Mangiferous	D.M.T.	19,395	939,616	30,414	1,031,327	869	27,450
<b>Non-metallics:</b>			292,536,942		316,190,493		321,141,762
Cement	Mbl.	13,880,306	200,514,604	16,189,433	218,024,797	16,843,199	202,653,765
Gypsum	M.T.	17,856	572,356	29,278	1,597,379	19,189	692,166
Synthetic or Chemical	M.T.	-	-	-	-	-	-
Natural	M.T.	-	-	-	-	-	-
Coal	M.T.	60,764	1,536,424	61,540	1,378,360	32,587	1,248,729
Rock Asphalt	M.T.	-	-	-	-	-	-
Sand, gravel, salt, etc.	M.T.	-	89,895,358	-	95,189,957	-	116,547,102

Source: Minerals Data Service, Fiscal Year 1969-1970.

Legend: oz. = ounces  
M.T. = metric ton  
D.M.T. = dry metric ton  
Mbl. = barrels

FIGURE XIV.2  
MINERAL PRODUCTION: FY 1961-1962 TO FY 1969-1970



SOURCE : MINERAL NEWS SERVICE, FY 1969-70, BUREAU OF MINES



Precious metals produced in the Philippines include gold, silver, platinum, and palladium. Gold production in the Philippines barely reached the 600 thousand ounces mark in 1969-70. Although production of this precious metal had increased since 1964, it accounts for only more than 14 percent of total mineral output. Silver production on the other hand ranged from 735,140 ounces valued at P1.9 million in 1961-62 to 1,660,920 ounces or P12.7 million in 1969-70.

Total production of precious metals as reported by sixteen (16) mining companies shown in Table XIV.3 for 1968-69 and 1969-70 reflects a 6.83 percent increase in quantity and a 7.95 percent increase in value of gold; a 10.23 percent increase in the quantity of silver and a 7.75 percent increase in its value. Total for direct shutting ore and milled ore increased by 48.50 percent and 7.95 percent by quantity and value, respectively.

Table XIV.3 - COMPARATIVE PRODUCTION OF PRECIOUS METALS BY PRODUCERS: FY 1968-69 AND FY 1969-70  
(Value in pesos)

Producer Mineral/Mineral Product	Unit Used	FY 1968-69		FY 1969-70		Percent Increase/ (Decrease)	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>Total</b>	Au os	546,315	P112,743,372	583,609	P121,709,580	6.83	7.95
	Ag os	1,506,779	11,815,330	1,660,920	12,730,723	10.23	7.75
	DSO & MO ST	16,995,900	124,558,702	24,644,240	134,440,303	48.50	7.93
Atlas Consolidated	Au os	31,033	5,755,194	28,612	5,999,970	(7.80)	(2.70)
	Ag os	175,200	1,303,392	162,721	1,361,398	(7.12)	(5.98)
	MO ST	8,263,522	7,058,586	9,447,243	6,980,968	14.32	(1.10)
Atok Big-Wedge	Au os	5,879	1,528,371	6,262	1,628,505	6.51	6.55
	Ag os	4,303	16,269	4,332	30,329	0.67	86.42
	MO ST	41,483	1,544,640	45,750	1,658,834	10.29	7.39
Bagoasay Copper Project (Marinduque Mng. & Ind. Corp.)	Au os	3,205	422,308	2,635	433,348	(17.79)	2.61
	Ag os	299,126	2,892,032	238,006	1,935,986	(20.43)	(33.06)
	MO ST	319,672	3,314,340	306,073	2,369,334	(4.26)	(28.51)
	Au os	862	112,537	1,933	320,513	124.25	184.81
	Ag os	55,909	304,320	154,410	1,270,420	176.18	317.46
	DSO ST	14,273	416,857	56,440	1,990,933	295.43	281.65
Banguet Consolidated	Au os	258,135	56,021,657	244,429	55,052,584	(5.31)	(1.73)
	Ag os	223,782	1,678,444	242,823	1,517,631	8.51	(9.58)
	MO ST	1,216,197	57,700,191	1,197,739	56,570,215	(1.52)	(1.96)
Banguet Exploration	Au os	24,458	4,685,644	25,447	4,748,865	4.04	1.35
	Ag os	71,524	549,571	62,777	505,269	(12.23)	(8.06)
	MO ST	25,146	5,235,215	25,415	5,254,134	1.07	0.36
Black Mountain	Au os	28	3,913	157	21,627	460.71	452.70
	Ag os	421	1,890	2,402	10,990	470.55	481.48
	MO ST	111,453	5,803	746,144	32,617	569.47	462.07
Consolidated Mines (Marinduque Is.)	Au os	3,843	439,413	5,989	895,795	55.84	103.86
	Ag os	33,493	259,528	47,402	333,602	41.53	28.54
	MO ST	220,422	698,941	375,601	1,229,397	70.40	75.89
Copper Belt Mining	Au os	152	19,364	-	-	-	-
	Ag os	4,203	19,640	-	-	-	-
	MO ST	10,458	39,004	-	-	-	-
Itogon-Suyoc Mines	Au os	46,613	11,342,851	41,295	10,677,987	(11.41)	(5.86)
	Ag os	36,415	264,775	27,798	222,686	(23.66)	(15.90)
	MO ST	327,600	11,607,626	300,591	10,900,673	(8.24)	(6.09)
Lepanto Consolidated	Au os	112,930	21,061,445	137,006	25,551,616	21.32	21.32
	Ag os	433,491	3,345,565	414,731	3,095,695	(4.33)	(7.47)
	MO ST	1,104,490	24,407,010	1,144,346	28,647,311	3.61	17.37
Marcopper	Au os	-	-	22,757	3,936,689	-	-
	Ag os	-	-	110,835	856,606	-	-
	MO ST	-	-	4,054,212	4,793,295	-	-
Masara Project (Samar Mining)	Au os	3,730	681,826	5,790	1,299,421	55.23	84.71
	Ag os	8,318	67,000	12,108	107,670	45.56	60.70
	MO ST	244,637	748,826	308,489	1,367,091	26.10	82.56
Paracale-Osumas	Au os	10,231	2,532,644	8,392	1,993,800	(17.98)	(21.28)
	Ag os	13,281	101,501	8,631	69,686	(35.01)	(31.35)
	MO ST	53,447	2,634,145	53,733	2,063,486	0.54	(21.66)
Phillex Mining Corp.	Au os	42,681	7,780,493	50,083	9,122,780	17.34	17.25
	Ag os	64,998	497,873	82,611	644,380	27.88	29.43
	MO ST	1,784,063	8,278,366	3,435,907	9,767,160	92.99	17.98
Sipalay Copper Project	Au os	2,565	355,712	2,822	466,480	10.02	31.14
	Ag os	82,715	513,530	89,333	748,375	8.00	45.73
	MO ST	2,857,037	869,242	3,146,557	1,214,855	10.13	39.76

Legend: Ag - argentum (silver)  
Au - aurum (gold)

DSO - direct shutting ore  
MO - milled ore

Os - ounce  
ST - stone (weight)

Source: Bureau of Mines, Mineral News Services Fiscal Year 1969-70.

The biggest producers of gold for 1968-69 and 1969-70 were the Benguet Consolidated Mines and the Lepanto Consolidated with operational mines in Mt. Province. The leading mining companies in the production of silver for both years were Lepanto Consolidated, Baguay Copper Project, Benguet Consolidated, and Atlas Consolidated. For the production of milled ore the Sipalay Copper Project of the Marinduque Mining and Industrial Corporation ranked second to Atlas Consolidated in 1968-69, while the Marcopper Mining that started operations in 1969-70 ranked second only for that year. Other big producers of milled ore were Philex Mining Corporation, Benguet Consolidated, and Lepanto Consolidated.

Base metal production is lead by copper, followed by iron ore, refractory chromite ore, quick silver, metallurgical chromite ore and others, as shown in Table XIV.4 below.

Table XIV.4 - COMPARATIVE PRODUCTION OF BASE METALS BY PRODUCER: FY 1968-69 AND FY 1969-70

Mineral/Mineral Product Producer	Unit	(Value in pesos)					
		FY 1968-69		FY 1969-70		Percent Increase/ (Decrease)	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>Total</b>			<b>P 607,321,860</b>		<b>P1,057,685,313</b>		<b>74.15</b>
Refractory Chromite Ore	D.M.T.	338,315	25,337,906	420,061	38,248,183	24.16	50.95
Consolidated Mines		338,315	25,337,906	420,061	38,248,183	24.16	50.95
Metallurgical Chromite Ore	D.M.T.	125,303	8,288,044	106,375	8,242,784	(15.11)	(0.55)
Acoje Mining Co.		123,443	8,137,428	106,375	8,242,784	(13.83)	1.29
Palawan Consolidated		1,860	150,616	-	-	-	-
Copper (metal)	M.T.	118,103.88	507,260,211	150,808.45	933,902,030	27.69	84.11
Acoje Mining Co.		1,399	2,117,964	867	1,808,375	(38.03)	(14.62)
Atlas Consolidated		44,797	204,189,511	45,462	320,978,848	1.48	57.20
Baguay Copper Project		7,381	34,387,979	11,107	56,890,267	50.48	65.44
Malabes Project (BCI)		7,503	25,832,440	1,809.80	5,934,204	(75.88)	(77.03)
Benguet Exploration		112	496,483	143.40	1,000,701	28.04	101.56
Black Mountain 1/		331	996,006	1,988	8,863,952	500.60	789.95
Consolidated (Marinduque Is.)		1,980	6,987,924	4,694	29,168,053	137.07	317.41
Copper Belt Mining		133	440,529	-	-	-	-
Itogon-Sayoc Mines		156	701,565	81.60	593,995	(47.69)	(15.33)
Lepanto Consolidated		26,334	115,223,976	25,916	162,869,820	(1.59)	41.35
Marcopper Mining 2/		-	-	23,540	152,131,816	-	-
Masara Project (Samur Mining)		1,021	4,360,842	1,695	12,314,940	66.01	182.40
Paracale-Gumus		4.88	22,442	6.65	32,493	36.27	44.79
Philex Mining Corp.		10,416	34,124,996	14,162	65,665,185	35.96	92.42
Sipalay Copper Project		16,392	76,889,450	19,336	115,649,381	17.96	50.41
White Eagle Overseas Oil		144	578,104	-	-	-	-
Quicksilver (metal)	Flask	3,505.40	6,875,221	3,909.70	8,587,326	11.53	24.90
Palawan Quicksilver Mines		3,505.40	6,875,221	3,909.70	8,587,326	11.53	24.90
Lead (metal)	M.T.	55.80	65,537	56.65	74,213	1.52	13.24
Paracale-Gumus		55.80	65,537	56.65	74,213	1.52	13.24
Kino (metal)	M.T.	2,824.30	3,439,922	3,177.30	4,007,673	12.50	16.50
Benguet Exploration		2,824.30	3,439,922	3,177.30	4,007,673	12.50	16.50
Molybdenum (metal)	M.T.	33.46	411,461	23.90	300,177	(28.57)	(27.05)
Sipalay Copper Project		33.46	411,461	23.90	300,177	(28.57)	(27.05)
Pyrite Cinders	D.M.T.	78,528	1,224,678	103,135	1,839,290	31.34	50.18
Atlas Fertilizer		40,479	631,494	40,616	738,898	0.34	17.01
BBDO Standard Fertilizer		38,049	593,184	62,519	1,100,392	64.31	85.51
Iron Ore	D.M.T.	1,468,863	50,707,029	1,658,780	61,679,280	12.93	21.64
Atlas Consolidated		100,998	3,187,481	128,545	4,881,569	27.27	53.15
FLIMCO		397,306	11,373,207	529,454	17,378,879	33.26	52.80
Marawani Consolidated 3/		122,837	2,255,000	21,043	430,000	(82.87)	(80.93)
Philippine Iron Mines		703,091	27,892,106	748,439	28,890,516	6.45	3.58
Philex Mining Corp.		61,288	2,149,524	54,569	2,211,623	(10.96)	2.89
Zambales Base Metals		93,343	3,849,711	176,710	7,886,693	89.31	104.86
Manganese Ore		26,222	2,680,524	6,197	776,907	(76.37)	(71.02)
Metc., Chem., etc.	D.M.T.	19,613	1,992,184	1,049	99,450	(94.65)	(95.01)
Acoje Mining Co. 4/		6,378	684,000	2,170	281,274	(67.01)	(58.88)
G.T. Limnah Mining Co.		-	-	1,594	249,730	-	-
R.B. Industrial Dev. Co. Ltd. 5/		-	-	984	146,453	-	-
South Sea Export 5/		31	4,340	-	-	-	-
Vasilao Mining Co.	D.M.T.	30,414	1,031,327	869	27,450	(97.14)	(97.34)
Magniferous Ore		30,414	1,031,327	869	27,450	(97.14)	(97.34)
Acoje Mining 6/		-	-	-	-	-	-

- 1/ Started Production - March, 1969  
 2/ Started Production - September, 1969  
 3/ Mining Operations Terminated - September, 1969  
 4/ Ceased Mining Operation - October, 1969  
 5/ Started Production - January, 1970  
 6/ Started Operation - April, 1970

Source: Minerals News Services, Fiscal Year 1969-1970.

For fiscal year 1961-62 to 1969-70 copper mining dominated Philippine mineral production and made major contributions to the value of output for these years, as shown in Table XIV.4. Although Philippine production of copper ores and concentrates is relatively small by world standards, the potential of this mineral in the world market is definitely bright. Its annual production of around 100,000 metric tons of contained metal makes it easily the country's premier mineral commodity. In foreign exchange alone, it easily brings in about \$100 million annually. The estimated total investment for copper production was P572 million in 1967 as against P232 million in 1962, or an increment of 146 percent. The Atlas Consolidated Mines is the ranking producer of copper followed by Lepanto Consolidated, Marcopper Mining, Sipalay Copper Project, Philex Mining Corporation, and the Bagacay Project.

Iron ore production is also minimal by world standards. Its foreign exchange earnings amount to \$11-\$12 million annually. However, the known reserves are more than sufficient to supply the raw material requirements of an iron and steel industry, in addition to maintaining the present export demand for this mineral commodity. For fiscal years 1968-69 and 1969-70, volume of production increased by 12.93 percent, while value increased by 21.64 percent. The leading producer of this mineral for both years was Philippines Iron Mines, followed by Filmag, Zambales Base Metals, Atlas Consolidated, Philex Mining Corporation, and Maraverni Consolidated, which however registered a decrease in production of 82.87 percent by volume and 80.93 percent by value with the termination of its mining operations in September 1969.

Another important base metal is refractory chromite ore with production valued at P25.3 million in 1968-69 and P38.2 million in 1969-70, all produced by the Consolidated Mines. Two mining companies shared the production of metallurgical chromite ore, the Acoje Mining Company with more than P8 million sales for both years, and the Palawan Consolidated with P150,616 in 1968-69. For other base metal production see (Table XIV.4,) showing quantity and value and producing companies.

The non-metallic groups produced an aggregate value of P322 million in 1969-70 as shown in Table XIV.5. Seven broad classifications of non-metallic products are presented, with the cement, coal and gypsum group contributing the largest amount to the total. In this group, cement registered a contribution of P203 million out of a total of P205 million for the group.

The cement industry has grown at a fast rate, starting with six (6) plants in 1961-62 to 12 plants in 1969-70. In 1961-62 the cement companies produced only 22.3 million bags while for the fiscal year 1969-70, 16.8 million barrels.

The five (5) top producers for fiscal year 1969-70, as shown in Table XIV.6, were Island Cement Corporation with 2.98 million barrels valued at P32.9 million; Bacnotan Consolidated Industry, Inc., 2.5 million barrels valued at P32.2 million; Republic Cement Corporation, 2.48 million barrels valued at P28.7 million; Filipinas Cement Corporation, 2,208 million barrels valued at P25.5 million; and HI Cement Corporation, 1,613 million barrels with a value of P21.7 million.

The other non-metallics with significant production values were solar salt with P23.2 million; sand and gravel production, P27.3 million; tiles worth P15 million; and miscellaneous, fertilizers, P22.8 million.

During fiscal year 1970-71, a total of 63 non-metallic companies were in production, broken down as follows: cement plants, 13; lime and limestone exclusive of cement companies, 11; for feldspar production, 2; silica sand, 7; for sulphur, only 1; coal production, 12; marble, 3; clay, 8; natural gypsum, 2; and guano, synthetic gypsum and dolomite, one each.

Table XIV.5 - NON-METALLIC MINERAL PRODUCTION, QUANTITY AND VALUE: FY 1969-70

Mineral/Mineral Product	Unit Used	Quantity	Value in Pesos
<b>T o t a l</b>			<b>P321,790,963</b>
Clay, Refractory Ceramics & Other Clay Products.			19,169,155
Pottery (jars, stoves, etc.)	Pc.	624,785	184,375
Bricks (assorted)	Pc.	7,879,134	2,276,235
Tiles	Pc.	145,263,948	14,969,562
Red clay	M.T.	11,721	9,642
Rock clay	M.T.	3,109	128,087
White clay	M.T.	7,183	517,627
Other clays	M.T.	222,407	969,496
Diatomaceous earth	M.T.	111	3,534
Various ceramics & refractory products	Pc.	372,073	110,607
Construction materials			31,849,327
Adobe a) Broken	CU.M.	70,614	431,652
b) Dimension	Pc.	173,179	96,428
Sand, gravel & earth	CU.M.	5,416,972	27,343,868
Stones, cobbles & boulders	CU.M.	237,615	1,482,342
Coral rocks, crushed	CU.M.	101,016	672,931
Marble, unfinished	M.T.	5,780	891,811
Marble, finished	Sq.M.	19,098	918,792
Other construction materials	Pc.	4,598	11,503
Lime			4,865,152
Slaked or hydrated	M.T.	11,726	854,147
Prom shells	M.T.	10,527	19,570
Quicklime	M.T.	17,441	1,398,130
For industries	M.T.	148,097	2,505,598
Other uses	M.T.	8,341	87,707
Limestone			717,240
For cement manufacture 1/	M.T.	(3,999,299)	(11,555,224)
For agricultural (grounded)	M.T.	31,721	717,240
Fertilizer materials			567,413
Pyrite 2/	M.T.	(216,852)	(9,311,823)
Quano	M.T.	16,064	527,413
Phosphate rock	M.T.	500	40,000
Miscellaneous			60,028,016
Salt from sea water	M.T.	209,822	23,222,201
Silica sand, silica sinter, quartz	M.T.	623,794	7,269,976
Carbide	M.T.	8,378	4,355,798
Feldspar	M.T.	17,602	609,185
Alloys	M.T.	1,041	1,147,642
Dolomite	M.T.	11,599	349,820
Asbestos	M.T.	7	1,500
Miscellaneous fertilizer	M.T.	64,645	22,803,585
Sulphur	M.T.	40	11,185
Talc	M.T.	2,052	240,016
Huff	M.T.	107,649	17,148
Cement, coal and gypsum			204,594,640
Gypsum: Natural	M.T.	3,500	221,490
Synthetic	M.T.	15,689	470,676
Coal	M.T.	52,587	1,248,729
Cement	Bbl.	16,843,199	202,653,765

1/ Included in report of cement production.

2/ Included in report of manufacture of ammonium sulphate &amp; other fertilizers.

Source: Minerals News Services, Fiscal Year 1969-1970.

Table XIV.6 - PRODUCTION OF CEMENT AND COAL: FY 1969-70

(Value in pesos)

Producer	Unit Used	July to December 1969		January to June 1970		July to June 1970	
		Quantity	Value	Quantity	Value	Quantity	Value
<b>T o t a l</b>	Bbl.	<b>8,529,879</b>	<b>109,182,451</b>	<b>8,313,320</b>	<b>93,471,314</b>	<b>16,843,199</b>	<b>202,653,765</b>
All Coal Producers	M.T.	25,185	513,633	27,402	835,096	52,587	1,248,729
Apo Cement Corporation	Bbl.	167,053	2,138,279	-	-	167,053	2,138,279
Basco Cement Consolidated Ind., Inc.	Bbl.	1,187,567	15,200,858	1,299,134	17,044,784	2,486,702	32,245,642
Filipinas Cement Corporation	Bbl.	1,283,794	16,432,562	924,215	9,091,919	2,208,009	25,524,481
Hi Cement Corporation	Bbl.	917,905	11,749,184	695,699	9,954,167	1,613,604	21,703,351
Iceland Cement Corporation	Bbl.	942,188	12,060,008	2,035,258	20,803,030	2,977,446	32,863,038
Lason Cement Corporation	Bbl.	298,256	3,817,676	404,189	4,853,920	702,445	8,671,596
Mindanao Cement Corporation	Bbl.	356,888	4,568,166	374,126	4,938,450	731,014	9,506,616
Pacific Cement Corporation	Bbl.	422,518	5,408,230	147,868	2,189,546	570,386	7,597,776
Philippine Portland Cement	Bbl.	43,269	554,189	56,301	825,914	99,597	1,380,103
Republic Cement Corporation	Bbl.	1,467,553	18,784,679	1,009,744	9,880,814	2,477,297	28,665,493
Rimal Cement Corporation	Bbl.	811,611	10,388,620	857,359	7,300,911	1,668,970	17,689,531
Universal Cement Company	Bbl.	631,250	8,080,000	509,427	6,587,859	1,140,677	14,667,859

Source: Minerals News Services, Fiscal Year 1969-1970.

## Philippine Mining Developments

The Philippine mining industry is primarily an exporter of raw ores and concentrates; however, not much progress has been made in the establishment of processing and smelting plants.

From 1968 to 1970 copper and iron concentrates were among the country's ten principal exports. Although the industry output is only a small percentage of the gross national product, the real contribution of the industry to the economy extends much beyond this. The industry provides a wide variety of materials on which most of our existing industries are based. The mining industry also provides some of the raw materials for the fertilizer industry which, in turn, provides support to the rice self-sufficiency program.

Local mineral production is increasing each year, with diversification in output, both commodity and source. Expansion programs and improved technology are kept at a determined pace. Prospecting, exploration, and development continue to provide a firm base for the industry's continued growth, and this trend continued in 1970.

Many of the traditional ills, such as labor troubles and others, continued to plague the industry. The usual mining accidents happened, serving as eternal warnings. The administration's policy to limit money supply as a means to apply a deflationary brake, affected many operations sorely in need of cash. To compound this problem, the stock market failed to channel more investment funds into mining.

Nonetheless, Philippine mining went on to score new records as previously stated, and most of the metallics made good during this year.

The non-metallics did not do so well, particularly in cement, coal, gypsum, and a few others. On the whole, however, non-metallics managed to push up their total value at a smaller rate.

Capital investments in Philippine mining, based on authorized capital and expansions, are broken down as follows for fiscal year 1966-67 to fiscal year 1970-71.

Value of Capital Investments (In Million Pesos)					
	1966-67	1967-68	1968-69	1969-70	1970-71
<b>Total</b> _____	<b>P837.45</b>	<b>P789.60</b>	<b>P973.35</b>	<b>P1,670.06</b>	<b>P2,115.42</b>
Mineral Mines _____	482.33	509.30	517.85	829.47	976.93
Non-metals _____	200.02	215.20	255.50	238.74	471.64
Oil exploration _____	155.10	155.10	200.00	601.85	666.85

Source: Bureau of Mines

The total taxes paid by the various mining enterprises in the form of ad valorem taxes, royalties, income taxes, gravel and sand fees, and registration fees, amounted to P59.8 million in 1968-69, 100.5 million in 1969-70, and P125.3 million in 1970-71 as shown below.

Taxes, Royalties and Fees Paid by the Mining Industry, 1968-69 to 1970-71  
(Million Pesos)

Items	1968-69	1969-70	1970-71
<b>Total</b> _____	<b>P59,780,184</b>	<b>P100,471,613</b>	<b>P125,311,830</b>
1. Ad valorem, royalties based on gross receipts of mineral output and sales, rentals (50% municipalities, 50% to province) _____	8,898,697	16,272,329	24,280,111
2. Income tax _____	49,926,010	82,354,410	98,749,654
3. Gravel and sand fees _____	617,770	916,030	1,199,520
4. Registration fees collected by mining recorders and Processing fees in the Manila Office _____	337,707	928,844	1,082,553

Source: Bureau of Mines.

The labor force employed in the Philippine Mining Industry during the fiscal year 1966-67 to fiscal year 1970-71 is shown below.

### Number of Persons Employed

Fiscal Year	Total	Metallics	Non-metallics
1966-67	43,000	28,667	14,333
1967-68	46,000	30,667	15,333
1968-69	47,000	31,333	14,667
1969-70	49,000	32,667	16,333
1970-71	51,500	34,333	17,167

Source: Bureau of Mines

### Government Assistance

The government provides considerable assistance to the mining industry. The Bureau of Mines undertakes detailed and reconnaissance geological survey, provides metallurgical and laboratory services, evaluates mineral properties, and other activities designed to foster mineral exploration, development and exploitation. It also assists the gold industry, through the Gold Mining Industry Assistance Board, by way of payments on gold production under certain conditions. Only recently the creation of a Metals Industry Development Center designed to develop and intensify research in metal was approved.

In order to conform with the modern trends in mineral resource development, the updating of existing mining laws and amending incentive laws is now urgent.

The incentive laws that have been established, among others include the Gold Mining Industry Assistance Act (R.A. No. 3089, amended) and Basic Industries Law (R.A. No. 3127) which enable the existing mines to expand their mining and mill capacities with tax-free equipment; Cottage Industry Law (R.A. No. 3470) exempting for five years taxes on production, manufacture and sales of cottage products from small mining operations; R.A. No. 3823, approved on June 22, 1963, granting incentives to new mines and old mines resuming operations; R.A. No. 4823, amending the Mining Act for the purpose of hastening the disposition of mineral lands by shortening the period within which the lease contracts may be signed; R.A. No. 4795 which provides the necessary funding and authorizes the intensification of geological surveys and exploration activities of the Bureau of Mines under the Mines Special Fund; and R.A. No. 5186, otherwise known as the Investment Incentive Act, which gives all-embracing incentives to certain industries, including mining. The incentives include exemption from all taxes under the Internal Revenue Code, except income tax, deduction of organizational and pre-operating expenses, accelerated depreciation, net operating loss carry over, tax credits, and others.

## CHAPTER XV — ELECTRIC POWER

It is impossible to envisage the economic development of a country such as the Philippines without considering the development of electric power. The economically developed nations in the West could not have attained the progress they are enjoying now were it not for the introduction of electricity.

Electric power has been harnessed to satisfy the many varied phases of man's life. It put an end to the inconvenience posed by oil/gas lighting and the relatively inefficient implements for household, agricultural and industrial use. Thus, housewives were eased of their household chores, industries produced more at less cost, time and effort, and man was able to control and divert nature to satisfy his human desires.

The progress brought forth by the availability of electric power as manifested by the establishment and growth of industrial and manufacturing concerns cannot be undermined. This is hoped to pave the way for agro-industrial balance which could not otherwise be achieved if the traditional form of agricultural development prevails due to the absence of electric power.

With the end of attaining economic growth and development, the government and private utilities are joining forces to provide cheap electric power to the rural areas in various parts of the country.

### EARLY ELECTRIC POWER DEVELOPMENT

Interest on providing electric power in the Philippines was stirred during the early 1890's. Agents tried to create interest in lighting and other electrical systems developed by such pioneers as the Brush and the Thomson-Houston organizations of the United States and Siemens and Halske of Germany. This growing interest was deeply manifested in newspaper advertisements as well as articles on the increasing electric light installations in other cities of the world.

In 1890, a royal decree was issued by Queen Regent Maria Cristina under the name of King Alfonso XIII which laid down rules to regulate electric installations in the colony. During that same year, three 1,200 candlepower electric arc lamps were installed at La Estrella del Norte in Escolta. In January 1892, *El Comercio* reported the splendid effects of arc lights set up for a hall at the Casino Español. At that time, electric lights were also installed on the Pasig River Banks as aids to navigation.

It was also during this year that the Ayuntamiento de Manila called for bids for a twenty-year contract to provide electric lighting for city streets, parks and other public places which were originally illuminated by oil lamps. The contract called for a total of 1,000 incandescent lamps of 20 candlepower each, to be installed according to a plan approved by the Ayuntamiento. This contract allowed the future expansion of the service and also permitted the awardee to enter into arrangements with private customers to have their homes and establishments lighted by the new method. The Sociedad Mercantil Millat, Marti y Mitjans won this bid which rights they subsequently transferred to a joint stock company named La Electricista. The latter was established late that year in association with the Compania General de Tabacos de Filipinas (TABACALERA) and Don Jose Moreno Lacalle.

La Electricista built a central power plant in Calle San Sebastian (now R. Hidalgo) where 14 dynamos of the Brush system were installed, driven by a 1,600 horsepower battery of engines divided into three separate groups of 2 engines each. Ten of these dynamos each with 60 KW ratings produced alternating current for incandescent lighting. The other four produced direct current. Each dynamo had a sufficient power to light up to sixty-five 2,000 candlepower arc lamps.

It was not until 1895 that an electric service central station was realized in the city. With its inauguration in January of the same year, electric lights were turned on for the first time in Manila. This fascinated the townspeople leading them to watch sputtering carbon on arc lamp posts and dead insects dropping down.

Private residents were encouraged to make use of the unfamiliar service in their houses through propaganda flyers and advertisements issued by the La Electricista. The advantages of electric lighting over other systems of illumination was advertised. It was claimed that thirty bulbs of 16 candlepower each did not produce more heat than one petroleum light of similar intensity. Incandescent lighting was firm while arc lighting was brilliant. Smoke and other carbon residues did not injure health or cause stains on one's walls and furniture.

Gradually, the homes and business establishments began to be lighted with the new device. By 1896 about 3,000 lights were already installed for private customers. With the coming of the Americans, this development was given impetus. La Electricista added new machines in its plant to meet the demand for electric power.

According to statistics from the city electrician's office as reported in a newspaper of April 1905, a total of 40,129 incandescent lights are registered in the city including those in government buildings and 192 private and 303 public arc lamps. Electrical equipment in use included 964 ceiling and desk fan motors, 98 motors of one to three horsepower and one motor of five horsepower. Energy from these lights and motors came from 16 isolated plants and the La Electricista central power house until the latter's purchase by the Manila Electric Company (MERALCO).

## POWER SUPPLY AND DEVELOPMENT

Today, the National Power Corporation (NPC), privately-owned utility systems and a number of municipal plants supply electric power to the country. In 1969, these electric power supply systems had a combined capacity of 1,754,500 KW. The NPC generating facilities account for 585,500 KW of this total capacity while a greater portion of 990,000 KW was contributed by the Manila Electric Company (MERALCO). The remainder is attributed to independent generating systems owned by small operators and municipal utilities accounting for 172,000 KW and 7,000 KW, respectively.

Local governments are also engaged in the generation and purchase of electric power for distribution within their political boundaries. There were 121 local government-owned utilities extending services to 132 towns and cities at the end of 1970. Most of these are small companies with maximum capacities of about 25 KW and having substandard management and insufficient capital.

To coordinate the power and electrification program, the government created the Power Development Council under RA 6038. This council was organized to adopt an integrated plan of electrification and power development, to coordinate the activities and operations of all sectors involved in electrification and to recommend policy measures necessary for the program's objectives.

The Philippine Electric Plant Owners Association (PEPOA) is composed of 184 private electric plant owners. These plants serve 303 municipalities and cities with a total capacity of 151,156 KW, representing 40 percent of the 355 private electric utilities. Around 151 non-members which represent 23 percent of the total number of electric utilities are currently serving 176 towns and cities with a total capacity of 20,925 KW. Most of these utilities are substandard and they render service from 8 o'clock in the evening only.



## National Power Corporation

### *Organization and Functions*

The National Power Corporation was originally a non-stock public corporation organized in 1936 under Commonwealth Act No. 120. However, with the approval of Republic Act No. 2641 in 1960, it was converted into a stock corporation wholly owned by the government. Under this act, it operated with a capital amounting to P100 million. This increased to P250 million upon approval of Republic Act No. 3043, and P50 million was further added to its authorized stock in 1967 under Republic Act No. 4897.

This government corporation is charged with investigating and determining the sources of cheap or moderate cost hydro-electric power which may be developed in the country in conjunction with fuel generated power; with determining the future power needs in various areas of the country from power market studies so as to improve living standards and permit industrial development by expanding the Corporation's transmission line networks; and with distributing and selling power in big blocks through facilities provided by provincial and municipal governments or private entities in order to minimize waste or duplication of facilities.

### *Power Systems in Operation*

The National Power Corporation operates and maintains two large power grids and seven relatively small isolated systems throughout the Philippines. The power grids are the Luzon Grid and Agus Grid. The Luzon grid is an interconnected network of power stations and complementary transmission and transformation networks of the National Power Corporation and the Meralco. It is currently served by four large hydro-electric stations; namely, the Caliraya, the Ambuklao, the Binga and the Angat plants. In addition to these stations, a sub-grid in Ilocos with two diesel electric plants having a total capacity of 2,900 KW and two other sub-grids in the Bicol region with two small hydroelectric plants having an aggregate capacity of 2,200 KW also serve the Luzon Grid. The Ilocos sub-grid is now in the process of inter-connection with the Luzon Grid. The latter serves partly or wholly the electric power customers in Northern, Central and Southern Luzon through transmission lines operating at 230 KV, 115 KV, 69 KV, 34.5 KV, 23 KV, and 13.8 KV. The Agus Grid is primarily supplied by the Maria Cristina Plant, supplemented with power from the Agusan Hydroelectric plant. It serves industrial customer and electric utilities in Northern Mindanao.

The other power systems which supply electric power to the various parts of the Philippines include the Ilocos system, Talomo system, Barit system, Cawayan system, Balongbong system, Amlan system and Loboc system. Transformer substations with an aggregate capacity of 1388.5 MVA are also operated and maintained by the NPC. In addition to these, the NPC operates and maintains 17 hydro-electric plants and 2 diesel electric plants. The plant capacities of these electric plants are distributed as follows:

<i>System Group</i>	<i>Capacity (KV)</i>
Luzon Grid .....	419,500
Luzon (Isolated) .....	6,570
Visayas .....	2,000
Mindanao .....	104,550
<b>TOTAL</b> .....	<b>532,620</b>

*Power Generation, Transmission and Distribution*

The National Power Corporation maintains about 2774.3 kilometers of transmission lines of various voltages for transmitting and distributing electric power. These lines are classified according to their voltage shown in the table below:

**Table XV.1 Transmission and Distribution of Lines According to Voltage by System Group, 1970**

<i>System Group</i>	<i>230 KV</i>	<i>115 KV</i>	<i>69 KV</i>	<i>23 &amp; 34.5 KV</i>	<i>13.8 KV &amp; Below</i>	<i>Total</i>
Luzon Grid	481.0	197.9	682.5	100.1	890.8	2,352.3
Luzon (Isolated)	-	-	-	42.5	99.6	142.1
Visayas	-	-	-	54.3	40.9	95.2
Mindanao	-	-	99.6	62.6	22.5	184.7
<b>TOTAL</b>	<b>481.0</b>	<b>197.9</b>	<b>782.1</b>	<b>259.5</b>	<b>1,053.8</b>	<b>2,774.3</b>

Source: 1970 National Power Corporation Annual Report.

Additional transmission lines totalling 118.4 kilometers were placed in operation at the end of the fiscal year 1970-1971. This increase was designed to serve the customers which increase annually. During the fiscal year 1970-1971 the NPC directly served 240 customers, which in turn served 304 cities and municipalities, 41 industrial and mining companies and 48 other utilities.

During the same period, the NPC had a total net generation of 1,505,313.6 MWH for all its customers with a station use of 20,954.1 MWH resulting to a total energy input of 1,484,359.5 MWH, as shown in the following table:

**Table XV.2 Energy Generated, Station Use and Energy Input by the NPC by System Group, FY 1970-1971**

<i>System Group</i>	<i>Net Energy Generated MWH</i>	<i>Station Use MWH</i>	<i>Energy Input MWH</i>
Luzon Grid	1,078,729.0	18,521.8	1,060,207.2
Luzon (Isolated)	18,916.3	352.9	18,563.4
Visayas	8,056.3	155.3	7,901.0
Mindanao	399,612.0	1,924.1	397,687.9
<b>TOTAL</b>	<b>1,505,313.6</b>	<b>20,954.1</b>	<b>1,484,359.5</b>

Source: National Power Corporation Annual Report, 1970-71

With an energy input of 1,484,359.5 the aggregate energy delivered to customers measured 1,336,800.8 MWH giving a system loss of 147,558.7 MWH or 10.0 percent of the energy input. This would therefore mean that more transmission and transformation facilities are needed to effect a decline in the system loss. The Luzon Grid experienced the biggest system loss with 12 percent of the energy input followed by the Visayas system group with 8.1 percent as shown in the following table:

**Table XV. 3 NPC Energy Input, Energy Delivered and System Loss by System Group, 1970-71**

<i>System Group</i>	<i>Energy Input MWH</i>	<i>Energy Delivered MWH</i>	<i>System MWH</i>	<i>Loss Percent</i>
Luzon Grid	1,060,207.2	932,717.2	127,490.0	12.0
Luzon (Isolated)	18,563.4	17,821.6	741.8	4.0
Visayas	7,901.0	7,258.2	642.8	8.1
Mindanao	397,687.9	379,003.8	18,684.1	4.7
<b>TOTAL</b>	<b>1,484,359.5</b>	<b>1,336,800.8</b>	<b>147,558.7</b>	<b>10.0</b>

Source: 1970 NPC Annual Report

#### *Expansion Program*

The NPC is embarking on a 5-year expansion program which would last up to 1974-1975. This consists of 2 major categories; namely, (1) the construction of generating plants and (2) the extension of transmission lines in the Luzon and Agus Grids.

The first category includes the completion of the 75 MW Bataan Thermal Unit No. 1 and the 50 MW Maria Cristina Unit No. 4; the construction of 150 MW Bataan Thermal No. 2 and the 200 MW Thermal Unit No. 3 in Batangas; the construction of 74 MW Agus No. 1 and the full regulation of Lake Lanao. These projects will involve a capital expenditure of ₱214 million or \$58.06 million in foreign exchange.

The second category includes the extension of transmission lines in both the Luzon and Agus Grids to serve new areas and industrial plants. This includes the Electrification Project which involves the extension of the existing 69 KV line from Ambuklao to Bacnotan, La Union, the Angat-Caliraya Tie Line that would connect the Caliraya plant to the northern stations by means of an 85 KM Tie Line of 230 KV capacity; the Laguna-Batangas Electrification Project which involves the extension of services to remaining un-serviced towns in Batangas province; the Southern Luzon Electrification Project that would extend services to the Southern Luzon provinces by the construction of a 50 KM transmission line from the Caliraya plant to Gumaca, Quezon; the Zambales Electrification Project which is designed to meet the growing demands of the province; and the Central Luzon Electrification Project which involves the strengthening of certain existing facilities and the extension of service to other towns in Tarlac and Pangasinan. The foreign exchange requirements for these projects are expected to come from Japanese Reparations and the Asian Development Bank. This requires a total capital of ₱102 million or \$17.2 million in foreign exchange.

The NPC also handles reconnaissance surveys of streams in various regions of the country to assess the feasibility of power development in these areas. Negotiations are currently in progress between NPC and the Union Oil of California for the latter to explore tap and deliver geothermal steam at Tiwi, Albay for the NPC, to convert into electric energy.

Furthermore, as provided by Proclamation No. 548 series of 1969, the NPC also takes the task of administering, supervising and controlling the Ambuklao Binga watershed. It pursues general forest conservation with particular emphasis on watershed management in cooperation with other government agencies, such as the Bureau of Forestry, the Reforestation Administration, the Parks and Wildlife Office, the Mountain Province Development Authority and other government agencies concerned with forest conservation.

## Manila Electric Company

### *Organization and Development*

The Manila Electric Company was born out of merging two companies, the Manila Electric Railroad and Light Company and its affiliate, the Manila Suburban Railways Company. It was from the former that the acronym 'MERALCO,' the popular name it bears to-day, was derived. These two companies were intended primarily to replace the outdated horsecar system by an electric streetcar system, in order to provide an up-to-date and rapid means of transportation. Inasmuch as this undertaking involved the generation and distribution of electric energy to drive the streetcars, it also took the task of providing the electric power needs of the people in due time.

The Manila Electric Railroad and Light Company was organized by Charles M. Swift of Detroit in 1903. It operated under a franchise awarded on the basis of competitive bidding to run the electric street railway service (tranvia) and to furnish current for light, heat and power in the city and its suburbs. The capital and capital equipment of the company was raised in the United States and in Europe in association with certain American financiers and the internationally known engineering firm, J.G. White and Company, Inc., of New York.

The company bought the La Electricista, the existing electric light company a year and a half later. Lines were built in important sections of the city which favored its growth potential. The La Electricista plant was dismantled in 1905 with the completion of the company's new plant on Isla de Provisor. This was the only central power station serving the city for the next quarter of the century. It was later named Blaisdell Station, in honor of Benjamin Blaisdell, its chief engineer from 1906 to 1930 and the company's superintendent of power plants from 1930 to his retirement in 1939.

The initial installations at Isla de Provisor consisted of three Westinghouse turbo-generator of 750 KW capacity each, driven by steam from six 375 horsepower Babcock and Wilcox boilers, together with building, intake and discharge circulating water tunnels and coal-handling equipment. The original boilers were handfired while the generators were designed to operate at 380 volts to deliver current straight to rotary converters to be transformed into 600 volts direct current to power the streetcars.

It was in 1919 that the two companies were reorganized to form the Manila Electric Company. This was followed by a period of great expansion. The year after, the company embarked on a 5-year general renewal program of its street railways system. Old rails were torn up, road beds renewed and heavier rails were laid out. By 1921, the generating plant consisted of one 2,000 KW units forming a total of 17,000 KW. The plant's boiler system had been rebuilt, augmented and stockerized and 5 turbo-generators were being driven by steam from 12 boilers with a rebuilt rating of 508 horsepower each, arranged into 6 batteries of two each. In 1924, a 12,500 KW Allis Chalmers turbo generator was added, bringing the station capacity up to 29,000 KW. This unit is still functioning and it is the oldest original generating unit in operation in the Meralco system today. By mid-1925, the transmission system consisted of 17 miles of three-phase 13,200 volts which transmit energy to 5 principal substations in Pandacan, Tondo, Caloocan, Pasay and Fort McKinley and 43 miles of two-phase 3,400 volt lines which transmit energy from Caloocan to Malabon in the north, from Pasay to Paranaque in the south and from McKinley to Pasig in the east.

During the same year, Meralco became part of the Associated Gas and Electric System, a large aggregation of operating utilities, service and holding corporation grouped around the Associated Gas and Electric Company of New York, one of the largest public utility holding companies in the United States. The company's entrance to this association paved the way for more expansion.

By 1927, autobuses were added to the transportation system, since the costs of track and overhead facilities including their maintenance no longer justified any further expansion of the railway or trackless trolley system. The service of autobuses grew over the years, and the streetcar lines were gradually replaced with bus lines. Between 1929 and 1930, Meralco built and added to its system, the Botocan Hydro Station where two 8,000 KW generating units and one small 960 KW unit were installed.

Electric service grew in relative importance through the years. Income of the company from electric service grew at a pace faster than the railway income. This may be attributed to the expansion of facilities and growth in the use of electricity by the public. The lines of the transmission system extended to the outlying municipalities; furthermore, substations in the provinces increased to 18 in 1930. By 1939, the company entered into a contract with the National Power Corporation for the purchase of not less than 4 million KWH per month and not more than 80 KWH annually to be produced at the new government-owned Caliraya Hydro-Station. In 1941, its franchise area included Manila and 94 municipalities in 13 Luzon provinces.

Further expansion and improvement in the company was hindered by the outbreak of World War II. The Japanese took over the management of the electric system and the street railway system. However, the inadequate maintenance deteriorated the facilities of the company. Furthermore, the heavy bombing, shelling and fierce fighting in the wake of the American return and the Japanese withdrawal in the late 1944 and early 1945 irreparably damaged a considerable portion of the electric system the streetcars and a great part of the tracks. This put an end to Meralco's 'tranvia.'

With all the power generating equipment either partially or completely destroyed, electric service in the country was disrupted. Power was first obtained from portable engine-driven generators and a few small isolated industrial plants that remained intact. Additional power became available from two naval vessels, the Wisemen and the Whitehurst, which provided some 4,000 KW each in mid-1945. In October of the same year, the army's 30,000 KW floating plant, the Impedance, delivered power to the city from its berth at the harbor. This was leased and operated by the company in July 1947 and from then on, it accounted for the greatest percentage of about 40 percent of the energy generated in KWH produced annually from all sources. A 10,000 KW unit at the government's Caliraya hydroelectric station was rehabilitated with the aid of the US army which provided a fraction of the electric power requirements of the populace.

Rehabilitation and reconstruction was carried out at a relatively slow pace. This was due to several factors that hindered a speedy restoration of sufficient electric power among which are: the extent of wartime deterioration and destruction of facilities, the unprofitableness of operating small isolated plants at the same services rates, as in Manila (this led the company to transfer to others a considerable number of local franchises), the difficulty of obtaining the necessary supplies and equipment, and the need for economizing the company's available resources.

Although reconstruction was slow, demand increased very rapidly due to the unavailability of commercial gas. Other fuels particularly wood and charcoal for household use were scarce and high in cost. During that time electricity was the only commodity which did not increase in price, in spite of the tremendous increases in wages and cost of living.

This led the company to construct a new 50,000 KW steam generating station together with the necessary transmission, substation and distribution facilities. Completed in 1950, the new generating station was fittingly named Rockwell Station in honor of the company's longtime chief executive, who presided over the period of expansion in the 1920's and 1930's and over the most critical period of its postwar recovery. Its completion was considered a culmination of the company's post war struggle at restoring its former standards of services.

Despite the company's unceasing efforts to gain satisfactory service to the public, moves were initiated in Congress in 1948 to abolish its franchise. However, findings and recommendations justifying the non-cancellation of the company's franchise were properly considered which vindicated this attempt. Recognition of the company's effort came to the fore when the company was cited "Power Firm of the Year" by the Business Writers Association of the Philippines, for progressively increasing power production and electric services in the Manila area.

More power generating stations were constructed in subsequent years to meet the demand for electric power of the industrial, commercial and residential customers. It also supplied electric power to other non-affiliated electric companies, such as the Marikina Electric Light Inc., Imus Electric Company Inc., the Philippine Power and Development Company (Philpodeco), etc.

In 1958, it was again cited by the Business Writers Association of the Philippines as 'The Public Service Utility Firm of the Year' for maintaining low power needs of the industrial world.

After almost 59 years of American ownership, Meralco was purchased by the Filipinos in 1962. The Meralco Securities Corporation which was organized by Eugenio Lopez, one of the nations leading businessmen, aimed at acquiring the securities of the Manila Electric Company held directly by the General Public Utilities Corporation. This move was hailed by all quarters of society and the purchase was considered the biggest single business transaction in the country's history and the largest American-Asian financial arrangements between the two parties.

Increasing efficiency and expansion of service characterized the firm under the new ownership and management. In 1968, the generating capacity more than doubled itself since its transfer to the Filipinos in 1962. Improvements in transmission, distribution and other service facilities and proper motivation and organization of the men and women of Meralco were achieved in line with the continuous effort to provide better and more reliable service to the Company's customers. Meralco is also keeping abreast with the technological progress in the power industry including the development of nuclear power.

Today, over 80 percent of all the kilowatt-hours sold in the Philippines are served to customers in Meralco's franchise area despite the over 300 other electrical utilities throughout the country. Its corporate life was extended from 1969 to 2019 under a franchise granted by Republic Act No. 4159. Its franchise area covers the most densely populated areas and the commercial and industrial centers in the Philippines, areas where the demand for the electricity is at a maximum. This area covers a total of 7 chartered cities including Manila, Quezon City, Pasay, Caloocan, Cavite City, San Pablo and Lucena; 40 municipalities in 6 Luzon provinces; 16 in Rizal; 10 in Bulacan; 8 in Laguna; 2 in Cavite; 3 in Quezon; and one in Batangas.

#### *Power Stations and Net Generation*

The company has 6 thermal generating stations which account for a substantial percentage of the electric power supply of the country. There are 4 major thermal electric generating stations which include the Rockwell Station, the Tegen Station, the Gardner Station and the Snyder Station; and 2 small prewar plants, the Blaisdell and Botocan hydro-station.

The Botocan Station located in barrio Botocan, Majayjay, Laguna is the company's only hydro-electric station. It has a capacity of 15,000 KW.

The Blaisdell Station and the Tegen Station are both located in Isla de Provisor in Manila. It is composed of 5 small units having a total gross effective capability of 32,5000 KW<sup>1/</sup>. It is the oldest power generating station still in operation. The Tegen Station has 2 units having the same effective capability, the first of which was put in commercial operation in September, 1965 and the second, the following year. This generating station has a total effective capability of 220,000 KWH. It was named after Albert F. Tegen, president of the General Public Utilities Corporation of New York, Meralco's parent company prior to its purchase by the present owners.

The Rockwell Station is located in Makati, Rizal on the south bank of the Pasig River. It consists of 8 units giving a total gross effective capability of 315,000 KW. The first unit (25,000 KW) was inaugurated in 1950 and the eight unit (60,000 KW) was inaugurated in 1963.

The Gardner Station, named in honor of Leland Gardner, the executive vice-president and general manager of Meralco, has 2 units. The first unit has a rated capacity of 150,000 KW but it is capable of operating at 165,000 KW. The second unit has an effective capability of 220,000 KW and it was put in commercial operation in 1970, a year after the first unit was put into operation. It is an oil-fired, reheat extraction and condensing unit designed for steam conditions of 1,800 psi<sup>2/</sup> initial pressure, 1,000°F initial temperature. This station was put on an eleven hectare site in barrio Sucat, Muntinglupa, Rizal, adjacent to the Laguna de Bay.

Constructed adjacent to this station is the Snyder Station, named in honor of William Snyder, the company's president from 1952 to 1960. Its first unit was put in commercial operation in May, 1971, having an effective capability of 220,000 KW. The station is designed for direct burning of crude oil as fuel for the steam generator. The second unit will be put into commercial operation in April, 1972, with a rated capability of 300,000 KW and a maximum effective generating capability of 330,000 KW. The completion of this unit not only would allow Meralco to meet the increasing demand for power in the franchise area but it also would provide ample reserve capacity for the Meralco system.

The Montelibano station, still a project to be undertaken, will have its first unit at barrio Malaya in the municipality of Pililla, along the eastern shores of Laguna de Bay. It was decided to be named after Alfredo Montelibano, Chairman of the Board of Meralco Securities Corporation. It will have a maximum effective capability of 330,000 KW. The completion of this unit is hoped to increase Meralco's generating capability to 1,851,000 KW which is almost twice its present capability. This station will have four units when completed.

In 1970, the Meralco system generated a total of 4,526 million KWH. This is accounted for by its then existing five power stations; namely, Rockwell, Tegen, Gardner, Blaisdell and Botocan (hydro). The Gardner station which has the biggest capacity generated about 2.2 billion KWH or 47.8 percent of the total generated power, followed by Tegen with 1.2 billion KWH or 27.3 percent. The Blaisdell station generated the least power with 22 million KWH comprising 0.5 percent of the total. The generated power in million KWH and the capacity in KW of each power station are shown in the table below.

1/ Power generating capacity is the measurement of the available generating resources of all hydro and thermal facilities at the time of the one-hour firm peak load for each reporting company and is not equal to the capacity of such generating facilities.

2/ pounds per square inch.

**Table XV.4 Meralco's Power Capacity and Net Generated Power by Power Station, 1970**

<i>Power Station</i>	<i>Capacity (KW)</i>	<i>Net Generation (Million KWH)</i>
Rockwell	315,000	1,043
Tegen	220,000	1,236
Gardner	385,000	2,164
Blaisdell	36,000	22
Botocan (hydro)	15,000	61
<b>TOTAL</b>	<b>971,000</b>	<b>4,526</b>

Source: 1970 MERALCO Annual Report

During the last decade the power generated by the Meralco system steadily increased as shown in Figure XV.1. From almost 1.3 billion KWH in 1961, the power generated by the system rose to over 4.5 billion KWH in 1970. There has been a slight drop in the company generation in 1970 relative to the previous year. This may be attributed to the temporary shutdowns of certain generating units during the typhoon days and during the period of restoration work.

In addition to its not generated power, Meralco also purchases power from the National Power Corporation, a government corporation charged with electric power development. Thus, total power supply in 1961 reached two billion KWH with about 0.7 billion purchased from the National Power Corporation (NPC). The proportion of the purchased power from the total power supply is observed to follow a declining trend. During the last ten years, 1969 had the least proportion of purchased power relative to the other years, this fraction increased by a small amount the succeeding year whereof the total power supply of 5 billion KWH about 0.5 billion KWH are purchased from the NPC.

#### *Power Consumers and Energy Sales*

The steadily increasing net generation coupled with the ensuing projects is geared to meet the demands of Meralco's customers in its franchise area. Through the years, the number of customers of the company increased reaching a total of 559,309 by the end of 1970. This represents a 3.7 percent increase over the number of customers area of the residential category. In 1970, the residential customers made up 87.4 percent of the total customers. The number of customers according to their classification are shown in the following table.

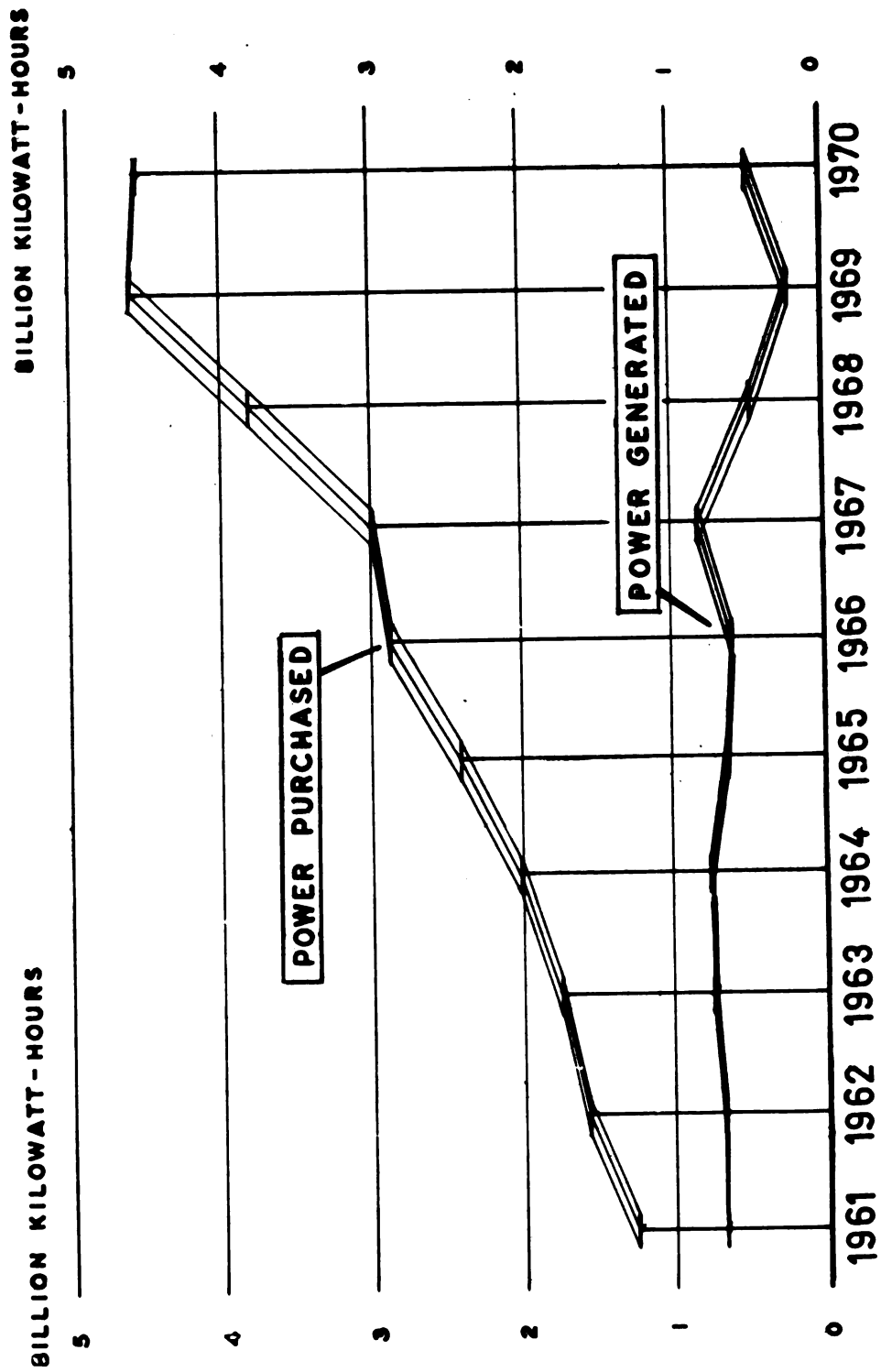
**Table XV.5 Meralco's Customers by Type, 1969 and 1970**

<i>Type of Customer</i>	<i>1969</i>	<i>1970</i>	<i>Percentage Change</i>
Residential	470,284	488,778	3.9
Commercial	67,304	68,707	2.1
Industrial	1,442	1,467	1.7
Street & Highway Lighting	279	336	20.4
Sales for Resale	20	21	5.0
<b>TOTAL</b>	<b>529,329</b>	<b>559,309</b>	<b>3.7</b>

Source: 1970 MERALCO Annual Report

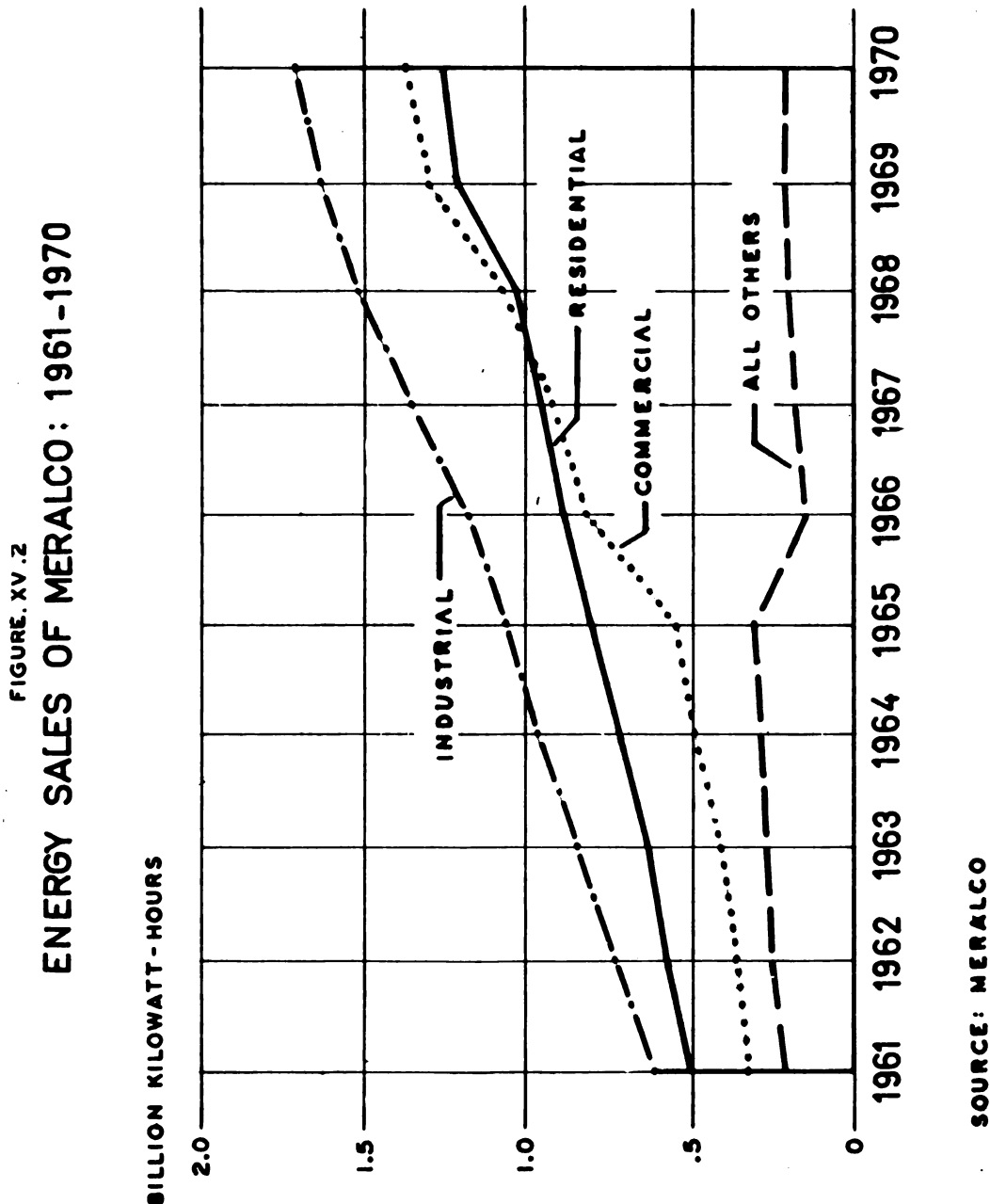


FIGURE. XV. 1  
**TOTAL POWER PURCHASED AND POWER GENERATED**  
**BY MERALCO: 1961-1970**



SOURCE: MERALCO

Although the residential customers far exceeded the rest in number, their purchased power energy is very much less than those of the other types. In terms of customer category, industry continued to be the largest electric energy consumer, using a total of 1.7 billion KWH which is equivalent to an average annual usage of 1.2 million KWH per industrial customer in 1970. On the other hand, during the same year commercial customers consumed 1.4 billion KWH of electric energy or an average annual usage per commercial customer of 19,961 KWH. The trend for the last decade may be observed from the figure below.



The Marikina Electric Light Inc. (MELI) continues to be the largest single consumer of Meralco power with an average monthly bill of P514,000. Other industrial customers with large monthly bills are the Marinduque Mining and Industrial Corporation, the International Chemicals, the Republic Cement, and the Manila Paper Mills.

In 1970, the textile industry topped all other industries in terms of electric consumption using a total of 331.7 million KWH. The cement products industry ranked second consuming a total of 178.1 million KWH followed by the metal products industry utilizing 136 million KWH, the ice and cold storage industry harnessing 112.6 million KWH and the paper industry using 111.2 million KWH.

#### *Power Transmission and Distribution*

The Meralco maintains a continuing program on the improvement and expansion of transmission and distribution facilities. This is aimed at meeting the increasing power demand and ensuring the stability and reliability of electric power supply throughout its franchise area.

The character of the transmission network is highly dependent on the location of new plants. In Rockwell and Tegen stations for instance, where power is generated close to the load centers, relatively short lines are required to transmit power to the distribution network. The more remote location of the new power plants require large blocks of power to be transmitted in longer distances and fed into a point of the distribution network. Hence, in addition to the transmission lines which have to be built, the distribution network also needs to be altered to effectively handle this new block of power introduced to it outside the main network.

The company's engineering staff undertakes a continuing analysis of the future transmission and distribution network. The complexity of these tasks led to the use of electronic computers. They also employ the assistance of consultants for this network analysis.

Further construction and improvement of the transmission and distribution facilities which will ultimately deliver power to the consumer call for the large amounts of investment. Meralco estimates millions of pesos to realize the completion of the projects which it schedules for the succeeding years. The following table lists the calculated investments costs for the next ten years.

**Table XV.6 Estimated Investment Costs for the Transmission and Distribution Systems, 1971-1980 (In million pesos)**

<i>Year</i>	<i>Transmission</i>	<i>Distribution</i>	<i>Customer Services</i>
1971	9.6	25.6	19.3
1972	13.5	32.1	22.3
1973	20.7	42.1	25.2
1974	75.3	36.1	28.4
1975	15.2	38.9	32.1
1976	23.4	47.9	36.1
1977	5.3	60.1	40.8
1978	28.7	64.3	46.0
1979	23.5	68.9	51.9
1980	7.1	83.2	58.4

Source: Snyder Unit 1 brochure published by the Meralco.

This projected capital outlays is anticipated to pave the way for the efficient distribution of electric power to meet the needs of the people in the years to come.

## RURAL ELECTRIFICATION

To accelerate the agricultural and industrial development of the country, cheap and dependable power and facilities must be amply provided not only in urban areas but in rural areas as well. With a vast majority of the provinces predominantly rural, prospects for their economic development would be dim if electric power is not available. In line with this goal, the Philippine government, through the National Electrification Administration and private electric utility operators pursue the rural electrification program.

The rural electrification program is aimed at the following objectives: (1) To make electric service available to most of our rural population throughout the country based on the concept of area coverage development<sup>3/</sup>; (2) To assist and support sound, reliable permanent systems and organizations furnishing electric service which the people and the business community alike can look and depend upon for continued service in the future; (3) To conduct surveys and studies and to prepare reports on the conditions and progress of electrification in various regions of the country; (4) To develop power resources of small streams whenever economically feasible, to serve small isolated rural areas not within the reach of any grid system and/or electric complex; (5) To undertake research and studies on the development of other possible sources of cheap and dependable electric service.

### National Electrification Administration

#### *Organization and Objectives*

The National Electrification Administration is the leading institution, created by R.A. No. 6038 approved on August 4, 1969, which is authorized to pursue the power program. The same legislative dissolved the Electrification Administration created by R.A. No. 2717. This government agency had the ultimate objective of attaining total electrification in the country on an area coverage basis in twenty years. It hopes to complete the country's backbone power system by 1980 through coordination with the National Power Corporation. This undertaking includes the completion of the Luzon and Mindanao grids as well as the integration of the electric systems in Visayas. Furthermore, it hopes to establish electric cooperative systems in each province of the country within four years.

To expedite these goals, the agency will extend loans at low interests and generously extended payment periods to public service entities, preferably cooperatives to be exclusively used in the construction of electric generator plants, transmission facilities and distribution systems. Project applications are assessed on the basis of the following criteria: (a) financial feasibility, response of local citizenry concerned, availability of technical and managerial manpower; (b) potential impact on regional economic development and (c) type of project involved.

#### *Electric Cooperatives and Municipal Electrification Projects*

The National Electrification Administration is now bent on establishing electric cooperative systems in 36 provinces of the country. This endeavor involves the preparation of project feasibility studies, the formation of cooperatives, the planning and design of physical facilities, their actual construction and their operation and maintenance. The cost of these 36 electric cooperative systems is estimated at P600 million. An estimated P240 million is to be financed by the General Revenue (R.A. 6038) and the USAID PL 480 Commodity Loan with P110 million and P130 million, respectively. The remaining P600 million is to be financed by the Japanese Reparations contributing about \$30 million worth of the estimated expenses. The balance will be financed by loans and grants from the USAID.

<sup>3/</sup> Area-coverage means the extension of electric service to all prospective consumers in a franchised area giving due consideration to the financial feasibility of the entire operation. This will have to involve larger power plants to be able to serve 5 to 10 municipalities on a 24-hour basis. The coverage schedule will give more emphasis to areas of thicker population densities then outwards, to more isolated communities. Large systems will be developed so that more progressive segments would help absorb the costs of providing service to more remote customers.

Two Model Cooperatives — The Misamis Oriental Electric Service Cooperative (MORESCO) in Northern Mindanao, and the Victorias Manapla — Cadiz Rural Electric Service Cooperative (VRESCO) in Negros Occidental were established by the agency. These projects were initiated based on the area coverage concept of barrio and rural electrification. Four municipal electrification projects in the municipalities of Lubang, Mindoro Occidental; San Jose, Nueva Ecija; Porac, Pampanga; and Barrio San Jose, Malinao; Mexico, Pampanga were transferred to electric service cooperatives. In 1969, the electrification projects in various regions of the country totalled to twenty-nine giving and aggregate installed capacity of 208½ KW. Around 101,200 people in different areas are benefitted by these systems.

The electrification projects of borrowing private electric utilities involve the improvement of the existing facilities including the extension of their service to adjoining barrios within franchise area. These projects include the Carolus Electric Plant located in Quezon, Nueva Ecija and the Sta. Cruz Electric Plant in Sta. Cruz, Zambales.

However, further improvements and construction are hindered by problems which beset this government agency. The lack of adequate funds for investigation and survey purposes and the delay in the procurement of electrical equipment, materials and hardwares for repairs slow down the implementation of the rural electrification program. If these problems could be overcome in due time and there would be no further obstacles, the availability of electric power in the rural areas will no longer be a dream a few years hence.

### STATUS OF ELECTRIFICATION

Of the 36.852 million population of the Philippines as of July 1, 1970, only about 19.67 percent are served by the electric system while the greater percentage of more than 80 percent do not enjoy the conveniences offered by electricity. The population served by these electric systems are mostly urban resident forming 55.5 percent while a majority of the towns people or rural residents comprising 44.5 percent, do not enjoy the benefits of electric power as may be seen from the following table.

**Table XV.7 Population Served and Not Served by Electric Systems, 1970<sup>1/</sup> (in thousands)**

<i>Population Status</i>	<i>Towns</i>	<i>Cities</i>	<i>Total</i>
Served by Electric System	3,228	4,020	7,249
Not Served by Electric Systems	26,438	3,166	29,603
<b>TOTAL</b>	<b>29,666</b>	<b>7,186</b>	<b>36,852</b>

1/ Percent of population under each category was based on 1970 NEA annual report. This was applied to projected population as of July 1, 1970 estimated by the Bureau of Census and Statistics.

**Table XV.8 Area Electrified and Not Electrified, 1970**

<i>Areas Status</i>	<i>Towns<sup>1/</sup></i>	<i>Cities</i>	<i>Total</i>
With Electric Systems	739	60	799
Without Electric Systems	706	0	706
<b>TOTAL</b>	<b>1,445</b>	<b>60</b>	<b>1,505</b>

1/ Includes Municipal Districts

Source: 1970 NEA Annual Report

These areas are served by government and private electric systems. Government electric systems consist primarily of the NPC and municipal electric systems while the private electric system include the Meralco, private franchise and electric cooperatives.

A major portion of the electric power supply is used by the industrial sector, consuming 55.3 percent of the total installed capacity while the household and commercial sector used up to 44.7 percent, while the NPC generated 51.7 percent of the industrial electric consumption, the Meralco accounted for 70.3 percent of the household and commercial electric consumption in 1970. This is readily observed in the table below.

**Table XV.9 Installed Capacity, Usage and Ownership of Electric Systems, 1970 (in kilowatts)**

Ownership/ Usage	Government		P R I V A T E			Total
	N P C	Mun. System	Meralco	Other Franchise	Coope- rative	
Household, Commercial	40,075	20,710	540,400	164,539	2,615	768,334
Industrial	492,215	—	196,955	263,110	—	952,280
<b>TOTAL</b>	<b>532,290</b>	<b>20,710</b>	<b>737,355</b>	<b>427,649</b>	<b>2,615</b>	<b>1,720,619</b>

Source: 1970 NEA Annual Report

## CHAPTER XVI — MANUFACTURES

Sustaining an accelerated rate of production is still the basic problem of most developing countries like the Philippines. For many years the desire of the country to attain economic growth and stability by establishing a well-balanced industrial and agricultural economy had become greatly increased. To cope with this problem the industrial sector has been called upon to play a major role in the country's economic development. Emphasis was put on industrialization, particularly the manufacturing sector. This is so because the economic growth of the Philippines, like any other country, depends to a large extent on the expansion and sustained growth of her existing industries and the development of new ones.

### Development of Manufacturing in the Philippines

Industrial development in the Philippines is a very recent experience. Philippine manufacturing before the war was largely concentrated on a few industries like sugar and rice milling, cigar and cigarettes, textiles, shoes, fish canning, and a large hydro-electric plant, the only one established during that period. All others were created only after liberation or within a span of about 20 years because industry then was not encouraged very much. Filipinos were oriented to be the basic suppliers of raw materials and the avid consumers of foreign manufactured products. It was only recently that the Filipino people realized the great need and importance of redirecting the economy towards diversification and industrialization.

For a year after the war in 1945, manufacturing industries in the Philippines remained prostrate and consumption requirements were virtually all imported. For this reason, development plans had for their main goals the rehabilitation of the war-torn economy and to adjust production to at least the pre-war level from 1945 to 1949.

The installation of a managed currency system in 1949 incident to the establishment of the Central Bank ushered in an industrial era in Philippine economic development. The new banking structure gave more flexibility on the use of fiscal, monetary and credit policies. Furthermore, the adoption of control measures curbed and changed the pattern of Philippine imports from luxuries and other consumer items to capital equipment and machinery essential in the industrialization process. This brought about the effective start of the industrialization and Filipinization of the economy.

The industrial growth of the Philippines was also stimulated by the tax incentives of the government. The tremendous impact of these incentives particularly of Republic Act No. 35 which exempts "new and necessary" industries from the payment of all internal revenues for a period of four years and the preferential treatment given to Filipinos in the allocation of dollars accelerated industrial growth and the entry of Filipinos into business and industrial ventures. This was particularly apparent during the 1950's when the massive support given by the government upon the establishment of new and basic industries had displaced imports and substantially diminished the predominance of agriculture's share to national income while at the same time increasing industry participation. It may, therefore, be stated that the present industries in the country sprang during the period of economic controls.

However, there was a slackening in the growth of the industries in 1962 resulting from the institution of a full decontrol system. This adversely affected the manufacturing sector and its ill-effects can still be felt in the various levels of manufacturing activities. It brought about some problems as high cost of production, reduced profits, low sales volume and utter shortage of capital resources for operation, consequently causing certain Philippine manufacturing industries to stagnate, cut down on production, or suspend some of their vital operations. These difficulties and several other external factors had brought the manufacturing sector in its extremes position in 1965.

Nevertheless, this deplorable condition was somewhat reversed in 1966 when a bold and imaginative refinancing program for hard-up but viable industries was introduced. Somehow with these expansionary measures and with the massive credit liberalization policy, the manufacturing industries partly recovered and their downward plunge was halted.

In 1967, however, the pace of development was restrained due to the contraction and re-direction of credit to high-priority productive projects. Notwithstanding these difficulties, the manufacturing sector still began to pick up the momentum of growth during the latter part of the sixties.

### Growth Trends

The growth pattern of Philippine manufacturing development may be described as erratic and inconsistent as it has been marked by fluctuating ups and downs. The industry's growth rates far exceeded those of the gross national product and national income from 1951 to 1965. Industrial growth also exceeded the growth in agriculture and in the other sectors, thereby proving that the industrial sector has set the pace in economic development throughout the fifteen-year period, specifically during the 1950's. It was noted, however, that there was a slackening in the growth rate of industry particularly in the 1960's.

The highest average industrial growth ever realized in the manufacturing sector was 12.3 percent which covered the period 1949-1954. During the period 1955-1959, a lower average growth of 10.8 percent was achieved. This downtrend in growth continued up to the 1960-1964 period, where the growth rate registered was only 5.7 percent. This further declined to 3.8 percent in the latter part of the 1960's. Such decline in industrial growth could be attributed to several factors; notably the adverse effects of decontrol and the tight credit policy of the Central Bank of the Philippines.

It was observed that structural changes have been taking place during the last two decades. With a 13.2 percent share in 1951, industry participation to national income increased to 14.91 percent in 1954. This further climbed to 18.42 percent in 1959 and in 1967, it was 20.6 percent, manifesting an improvement of 0.8 percent over the 1965 rate of 19.8 percent. Simultaneously, the share of agricultural to national income has been declining since 1946 although still a large percentage of the total labor force population are employed in agriculture. This indicates that the transformation of the economy (i.e. from agricultural to industrial) in terms of redirecting employment has been rather slow.

### Statistical Data for the Manufacturing Industries

The need for current economic data has long been felt in the government, private business and industry. For this reason, the Survey of Manufactures was organized in October 1956 to provide adequate statistics on manufacturing activities in the country and to establish a sound reporting system to maintain these data on current basis. It was initially established as a National Economic Council-International Cooperation Administration (now AID) sponsored project under the full operating responsibility of the Bureau of the Census and Statistics. On July 1, 1958 it was integrated into the Bureau together with other statistical survey projects.

The Annual Survey of Manufactures of which the 1956 survey was the first of its kind since the 1948 Census of Manufactures, is a nationwide survey covering manufacturing establishments with expected total employment of 5 or more workers. The "small" establishments (with 5-19 workers) are enumerated on a sampling basis while the "large" establishments (with 20 or more workers) are completely enumerated. Besides paid workers, total employment includes working owners and unpaid family workers who were actually engaged in the work of the establishment.

The survey covers manufacturing industries at the two-digit level industry code (industry major groups) namely: 20-food, manufactured; 21-beverages; 22-tobacco products; 23-textiles; 24-footwear, other wearing apparel and made-up textile goods; 25-wood and cork products, except furniture; 26-furniture and fixtures; 27-paper and paper products; 28-printing, publishing and allied industries; 29-leather products, except footwear and other wearing apparel; 30-rubber products; 31-chemicals and chemical products; 32-products of petroleum and coal; 33-non-metallic mineral products, except products of petroleum and coal; 34-basic metal industries; 35-metal products, except machinery and transport equipment; 36-machinery, except electrical machinery; 37-equipment; and, 39-miscellaneous manufactures.



Statistics covered usually deal with such phases of manufacturing activities as employment, payrolls, output, cost of materials, contract work and resales, value added, inventories and fixed assets, capital expenditures as well as the number of establishments engaged in all manufacturing industries.

### Trends in Principal Statistics

It may be stated that significant gains and favorable trends have been attained, despite problems common to developing countries and unfavorable factors that have specifically beset the manufacturing sector of the Philippine economy. Through the fifteen-year period (1956-1970) the various levels of manufacturing activities maintained a generally steady uptrend although fluctuations at intervals were also reflected in selected series of activities.

Table XVI.1 shows that the number of manufacturing establishments engaged in all types of industries increased from 7,208 in 1956 to 10,496 in 1970. Of this total, small establishments employing 5-19 workers numbered 8,340 while large establishments employing 20 or more workers were 2,156 representing 55.16 percent and 17.62 percent increase over the 1956 level, respectively. A significant drop was, however, reflected in 1964 when the number of establishments declined by 789 or 8.93 percent from the previous year's (1963) level. The biggest increase so far realized during the period was in 1968, where an increase of 2,022 over that of 1966 was recorded. On the average, the number of establishments increase by 3.53 percent annually.

Similarly, the growth of large establishments had a pattern of increases and decreases during the period under review. The biggest gain was realized in 1962 but a 9.01 percent drop in 1969 somewhat placed the establishments in an unstable position. Large establishments on the average increased by 1.68 percent annually.

The census value added<sup>1/</sup>, a measure approximating the contribution of manufacturing activities to the gross domestic product (GDP), increased by more than five times in 1970 from a little over ₱1.03 billion in 1956 to an estimated amount of ₱6.35 billion in 1970, increasing by no less than 517.04 percent over the 1956 level. Large establishments alone have census value added increasing by 557.59 percent from ₱0.9 million in 1956 to ₱6.05 billion in 1970.

During the same period all manufacturing establishments incurred an estimated total of ₱9.5 billion in 1970 for cost of materials, contract work and resales, representing 624.48 percent increase or more than six times that of 1956 costs.

Meanwhile, the trend of expenditures for new fixed assets of both small and large establishments consistently rose with the 1970 figures reaching over ₱1.27 billion which is thirteen times more than that of the 1956 level. Total capital expenditures of all manufacturing establishments likewise increased by 12.72 times during the same 15-year period.

In terms of employment, it may be stated that all manufacturing industries reported employment increases in the number of establishments reporting. The average number of paid employees in all industrial establishments rose by some 108.77 per cent over the 1956 average.

Apparently, manufacturers tend to keep pace with the fast rate of increase in present-day cost of living as evidenced by the significant changes in all manufacturing activities. In fact, they tend to acquire capital goods at a much faster rate than they are acquiring additional labor. This indicates a continued growth of capital-intensive industries which is being realized through the years. In this connection, however, it should be noted that the employment data in Table XVI.1 and in all other tables for manufacturing in this chapter are estimates of employment in annual terms or full-year employment equivalents (man-years) and do not ordinarily mean head counts of employment. Furthermore, 1970 figures are preliminary and are therefore subject to revision. The data on which the discussion in this chapter were based are in value or money terms rather than in physical volume or quantities.

<sup>1/</sup> Value of gross output minus the total cost of materials, containers, fuels consumed, purchased electric energy, contract work done by others, resale of goods sold.

Table XVI.1.—GENERAL STATISTICS OF MANUFACTURING FOR ALL INDUSTRIES, BY SELECTED YEAR: 1956 TO 1970

(Value and cost in thousand pesos)												
Major industry group and year	Number of establishments	Employment (Average for the year)		Total payrolls for paid employees	Value of gross output <sup>1/</sup>		Cost of materials used, contract work, and re-sale goods sold		Census value added <sup>2/</sup>	Total book value of fixed assets Jan. 1	Capital expenditures during the year	
		Total	Paid employees		Total	Shipments of manufactured products	Total	Raw material and other material used			Total	New structures and new machinery, equipment
ESTABLISHMENTS WITH 5 OR MORE WORKERS <sup>3/</sup>												
ALL INDUSTRIES, TOTAL												
1956	7208	205809	196050	331113.0	2345480.0	2130246.0	1316697.0	1146478.0	1028823.0	834384.0	100434.0	91233.0
1957	7421	223551	213651	369341.0	2698664.0	2452952.0	1502145.0	1311345.0	1196519.0	925336.0	156194.0	144542.0
1958	7411	228307	218382	397526.0	3099374.0	2806880.0	1673444.0	1452345.0	1425930.0	1058603.0	179930.0	159543.0
1959	7386	238666	229104	443580.0	3490193.0	3194360.0	1879448.0	1672615.0	1610745.0	1124982.0	175049.0	151242.0
1960	7221	248781	239605	471074.0	3934272.0	3560719.0	2172115.0	1912964.0	1762857.0	1263051.0	258140.0	231322.0
1962	8469	278473	266878	548798.0	5398889.0	4881152.0	3199006.0	2851519.0	2199883.0	1741549.0	455216.0	399236.0
1963	8833	300383	288067	622752.1	6708369.0	6027874.0	3970470.2	3506875.3	2737899.1	2252995.9	340881.0	314573.4
1964	8044	316415	305192	696011.9	7423351.8	6702458.0	4528828.7	4016834.2	2894533.1	2572216.1	409433.3	373334.6
1965	7925	323770	313198	765842.2	7466977.6	6698730.1	4593089.6	4060317.9	2873888.0	2936210.4	452562.2	393406.0
1966	8036	327354	316349	847267.6	8205938.4	7477779.6	5068026.6	4472017.5	3142911.8	3390115.4	601958.5	562081.7
1968	10058	394336	380054	1076007.5	11281431.3	10100960.6	6790981.2	5981027.4	4490450.1	4353031.1	670141.2	581547.6
1969	10494	402064	386074	1147074.1	11992736.8	10872104.3	7129772.4	6246971.3	4861964.4	4532355.2	822866.9	774817.6
1970 <sup>4/</sup>	10496	403780	388937	1296457.6	15887109.8	14112622.1	9538862.8	8356041.6	6348247.0	565017.5	1340782.8	1272638.3
ESTABLISHMENTS WITH 20 OR MORE WORKERS												
1956	1833	150878	149333	278551.0	1994238.0	1841755.0	1074573.0	990568.0	919665.0	737533.0	92657.0	84984.0
1957	2075	172708	170899	322311.0	2391523.0	2194551.0	1301799.0	1145430.0	1089724.0	842437.0	143443.0	132780.0
1958	1894	178328	176914	347454.0	2757282.0	2551069.0	1452484.0	1292725.0	1304798.0	960813.0	170276.0	150655.0
1959	1858	185580	184376	386433.0	3139760.0	2911802.0	1666235.0	1497967.0	1473525.0	1011858.0	164314.0	136296.0
1960	1884	199094	197980	422737.0	3547648.0	3244132.0	1915937.0	1696737.0	1631721.0	1182110.0	246542.0	223350.0
1962	2180	230469	229179	506795.0	5104236.0	4635234.0	3004670.0	2683289.0	2099566.0	1631870.0	444672.0	390329.0
1963	2219	250128	248733	574246.8	6335263.9	5723635.8	3724926.2	3304835.0	2610377.7	2144403.5	322383.5	302444.8
1964	2196	266241	264728	643338.6	6961325.2	6314844.3	4228083.0	3769412.2	2733242.2	2419041.2	402176.6	366753.4
1965	2152	273459	272115	709236.4	7020363.0	6337371.6	4314196.0	383893.8	2706167.0	2747642.8	428983.6	378264.5
1966	2075	279979	274538	787830.4	7713356.5	7073940.6	4742812.3	4214305.8	2970544.2	3203928.1	587693.2	551193.8
1968	2385	325131	323666	983517.2	10553581.2	9509550.7	6316817.2	530919.9	4236764.0	3977944.1	611694.2	536031.4
1969	2170	331841	330516	1060302.3	11265430.0	10297019.1	6646990.6	5858743.3	4618839.4	4201364.1	806889.2	761799.6
1970 <sup>4/</sup>	2196	333138	332135	1193208.0	15074892.3	13464835.5	9027742.2	7931360.9	6047650.1	5342547.6	1307662.8	1246617.4

<sup>4/</sup> Preliminary figures.<sup>1/</sup> Total value of shipments of manufactured products adjusted for change in inventories of finished products and work in process, receipts for contract and repair work done for others, sales of products bought and resold without further manufacture and other operating receipts.<sup>2/</sup> Value of gross output less the total cost of raw materials, containers and fuels consumed, purchased electric energy, contract work done by others and resale goods sold.<sup>3/</sup> Figures under the heading "Establishments with 5 or more workers" include data for "small" as well as for "large" establishments.

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division, Annual Survey of Manufactures.

### Major Historical and Current Statistics of Manufacturing

The growth of the manufacturing sector may best be gauged by the progress made by each individual manufacturing industry group. While it is true that each industry group progressed through the fifteen-year period (1956-1970) it may be noted that the growth as revealed by the data given in Table XVI.2 was characterized by sluggishness in the mid-sixties resulting from the severe repressive measure imposed upon the manufacturing industries. Nevertheless, the growth of the industries gained impetus during the latter part of the sixties to the 1970's.

Statistics reflect a sizable expansion in the major manufacturing activities of each industry group. In terms of employment, the "Food, manufactured" industry led the pace of expansion by contributing 21.06 per cent of the total employment in all manufacturing establishments in 1970. Textile industry came next supplying 11.63 per cent to the total employment. The "footwear and other wearing apparel and made-up textile goods" group ranked third with 9.95 per cent of the total. The "Wood and cork products, except furniture" industry indicated an improvement as an employment potential industry for the increasing labor force. Employment in this industry group comprised 9.62 per cent of the total average employment for 1970 while only 0.38 per cent was contributed by the "Products of petroleum and coal" industry, thus placing itself at the tail-end of the list. The rest of the industry groups showed general increases in employment through the period.

On the basis of gross output, the "food, manufactured" group was consistently the highest contributor in the manufacturing sector. This did not falter during the fifteen-year span except for some slight decreases in the mid-sixties which were actually insignificant considering the fact that 1965-1966 was a period of excessive repressive measures. Chemicals and chemical products industry, on the other hand, expanded rapidly in terms of the number of establishments and employed workers as well as in the value of gross output. The use of chemicals in the development of new technological processes and products in various industries primarily accounted for the phenomenal growth of the industry.

Products of petroleum and coal industry turned in the third biggest contribution to total gross output in 1970. This industry is primarily involved in the refining of imported crude oil into consumable petroleum products. Its brisk development is the result of the growing motor-consciousness among the Filipino people. On the contrary, the "leather and leather products, except footwear and other wearing apparel" industry made the poorest gross output contributing only 0.21 per cent, while the rest of the industry groups manifested moderate increases throughout the 15-year period. The relatively small output in the leather industry may be attributed to the rising prices and to the government restrictions in the importation of raw materials.

Similarly, census value added of each industry consistently rose in varying degrees from its 1956 level. Again, the "food, manufactured" industry group ranked first, followed by "chemicals and chemical products" industry and the beverage industry. It may be noted that the products of petroleum and coal industry which ranked third in terms of gross output was displaced from its position by the beverage industry by a margin of only 0.65 per cent. At the end of the list with respect to value added was again the leather and leather products industry registering only 0.17 per cent of the total value added. It may also be observed that development in this industry has been rather slow. The rest of the industry groups (basically those engaged in heavy industries) showed relative increases during the 15-year period.

Table XVI.3—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1/</sup>

(Value and cost in thousand pesos.)													
Major industry group and year	Number of establishments	Employment (average for the year)		Total payrolls for paid employees	Value of gross output <sup>2/</sup>		Cost of materials used, contract work, and resale goods sold		Gross value added <sup>3/</sup>	Total book value of fixed assets, January 1,		Capital expenditures during the year	
		Total	Paid employees		Total	Manufactured products	Total	Materials and contractors used		Total	Value of fixed assets, January 1,	Total	New machinery and equipment <sup>4/</sup>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
ESTABLISHMENTS WITH 5 OR MORE WORKERS <sup>5/</sup>													
Food, manufactured													
1956	2,822	97,904	53,619	80985.0	64989.0	603533.0	381210.0	331256.0	268649.0	264985.0	18128.0	16738.0	
1957	2,556	98,520	54,434	80992.5	71580.0	677340.0	429907.7	370620.0	285772.3	263268.0	22807.1	22237.0	
1958	2,531	97,383	53,649	84051.8	850416.0	782079.0	487443.9	412553.0	362972.1	308782.0	25639.1	25310.0	
1959	2,429	98,291	54,493	90783.0	930307.0	866424.0	530083.6	461510.0	400223.4	384761.0	29465.2	29590.0	
1960	2,476	64,463	37,816	97099.6	1126738.0	1048663.0	639583.0	549388.0	487155.0	251133.0	35285.0	31538.0	
1962	2,967	64,667	39,701	107403.0	1523420.0	1440280.0	939807.0	863807.0	583613.0	350464.0	68008.0	64212.0	
1963	3,065	66,564	41,437	116028.6	187697.7	1736991.0	1094863.8	1005633.0	762833.9	421234.6	56771.7	50648.7	
1964	2,906	65,954	41,931	130040.0	2074566.9	1939074.2	1249999.8	1129112.1	824607.1	479013.0	90545.5	85252.7	
1965	2,438	69,342	45,261	143563.7	1923830.4	1795192.4	1264654.4	1197398.1	659176.0	655194.1	129261.7	120885.3	
1966	2,473	67,688	43,742	158564.6	1986439.8	1918559.5	1276266.4	1192975.9	710173.4	783010.6	140820.1	138976.0	
1968	2,969	83,193	57,676	195109.7	2781192.9	2610527.3	1726014.9	1575092.0	1055178.0	934083.6	187134.3	149670.3	
1969	2,913	82,987	57,378	209491.0	3031598.2	2881840.4	1894773.4	1753560.7	1136824.8	1016815.6	128265.5	120031.2	
1970	3,093	85,019	59,369	248388.8	3950489.9	3709781.4	2350795.0	2113875.0	1599694.9	1195254.0	255817.8	264368.8	
Beverages													
1956	118	8,447	8,333	20185.0	151898.0	149051.0	53145.0	49342.0	98753.0	44998.0	2213.0	2181.0	
1957	108	8,972	8,885	23763.0	161608.0	161154.0	56855.0	50222.0	104743.0	49894.0	4277.0	4042.0	
1958	113	9,045	8,979	24391.0	181344.0	178880.0	62099.0	57872.0	119245.0	45673.0	7161.0	6397.0	
1959	102	9,305	9,200	26400.0	198510.0	197701.0	66280.0	63697.0	132230.0	44707.0	8358.0	8018.0	
1960	111	9,326	9,193	27948.0	214474.0	212497.0	79314.0	75573.0	135160.0	48712.0	12184.0	11706.0	
1962	112	11,392	11,392	35295.0	265946.0	264136.0	106466.0	101503.0	159480.0	62524.0	10153.0	8854.0	
1963	97	11,730	11,705	37648.9	335543.5	322785.9	131314.3	116186.4	204229.2	67802.5	8795.2	7482.6	
1964	148	12,289	12,280	43712.5	401783.6	400371.8	159598.9	151651.0	245824.7	80530.3	17706.1	16450.7	
1965	110	12,134	12,065	44428.9	422867.4	420371.2	152840.8	147497.3	270226.6	86649.1	16830.1	15643.4	
1966	98	13,991	13,432	47776.6	499294.6	496526.7	192150.1	183741.7	307144.5	100798.8	24905.3	22412.1	
1968	98	12,883	12,815	51977.8	626235.0	621048.9	257931.0	248544.2	119594.1	18831.2	15366.2	15366.2	
1969	94	15,035	14,936	60685.4	690102.5	690582.2	272532.6	261601.6	417569.9	181178.3	30347.6	27771.3	
1970	101	15,181	15,136	74529.8	846436.0	830054.5	342025.4	311664.8	504430.6	188784.9	25097.1	24964.6	
Tobacco Products													
1956	81	11,583	11,519	16756.0	154347.0	150489.0	82147.0	80508.0	7220.0	18906.0	6195.0	5671.0	
1957	77	11,848	11,754	18561.0	172247.0	172222.0	74805.0	73783.0	97442.0	73051.0	6178.0	5471.0	
1958	77	11,043	10,944	18772.0	211311.0	209424.0	98960.0	98119.0	112351.0	29617.0	8965.0	9628.0	
1959	76	12,077	11,988	20360.0	197911.0	186451.0	107661.0	106738.0	90250.0	35433.0	5695.0	4747.0	
1960	75	13,218	13,143	21433.0	186251.0	179659.0	101269.0	89671.0	84982.0	35159.0	6901.0	6391.0	
1962	84	12,784	12,720	20852.0	207120.0	187755.0	95020.0	87878.0	112100.0	34204.0	13044.0	11212.0	
1963	83	13,063	12,947	22472.3	25338.4	239207.5	140128.0	131652.0	113210.0	43572.0	8014.2	6706.7	
1964	73	13,971	13,913	25071.4	277154.7	253081.3	179016.3	151470.4	112138.4	43931.4	9712.2	9376.9	
1965	76	13,982	13,851	24643.5	325364.5	301825.2	173844.6	163799.4	152119.9	54472.8	13155.1	11884.1	
1966	73	15,023	14,988	30014.8	381882.6	354361.3	219499.9	201523.5	162383.7	57741.1	15004.5	14029.4	
1968	61	18,756	18,720	40170.5	588343.1	53551.7	302993.2	275666.6	286249.9	91335.9	20260.0	18337.3	
1969	68	20,339	20,263	49186.5	733911.8	630511.7	339871.0	274173.0	398040.0	100262.1	11952.1	11027.5	
1970	60	22,617	22,570	58616.9	875580.4	809152.8	453097.1	421717.8	422523.3	114988.2	39167.9	39129.0	
Textiles													
1956	186	10,081	9,999	17437.0	129977.0	117972.0	79981.0	73422.0	49996.0	38036.0	20596.0	20470.0	
1957	145	14,312	14,178	23669.0	199987.0	188982.0	128580.0	121493.0	71407.0	71453.0	24544.0	23341.0	
1958	102	17,183	17,078	29860.0	236533.0	221038.0	147438.0	138436.0	84195.0	102560.0	40672.0	38547.0	
1959	116	19,235	19,187	35860.0	255212.0	236977.0	169310.0	152433.0	89902.0	121947.0	32798.0	29447.0	
1960	99	24,974	24,541	42319.0	277081.0	259133.0	174349.0	159351.0	102132.0	170789.0	67112.0	65098.0	
1962	106	30,245	30,197	52497.0	385486.0	366428.0	248895.0	227860.0	136933.0	321317.0	86775.0	84450.0	
1963	119	34,687	34,598	60275.3	508526.7	466013.2	325211.6	298048.0	183015.1	367654.1	70736.1	68638.4	
1964	139	35,185	34,837	62398.5	472401.3	434775.3	302674.8	274878.5	167726.5	440643.4	43822.5	42862.2	
1965	136	33,720	33,644	66023.3	450327.9	432321.4	269020.0	246836.8	181307.9	473378.9	38954.7	37153.0	
1966	144	36,222	36,112	77527.8	512774.3	500166.1	328491.4	302113.2	184282.9	499197.5	52236.4	48048.1	
1968	205	46,605	46,481	110197.5	804287.8	747907.6	489313.1	429279.3	314974.7	569988.4	74769.4	72160.3	
1969	211	47,318	47,174	112082.7	800019.8	796711.7	502651.9	462920.5	297367.9	546139.4	74714.2	69248.7	
1970	196	46,974	46,840	114424.4	1028233.9	912766.5	695292.8	596259.1	332341.1	593179.5	88822.5	80289.0	

See footnote at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1/</sup> - Continued

(Value and cost in thousand pesos)

Major industry group and year	Number of establishments	Employment			Total payrolls for paid employees	Value of gross output <sup>2/</sup>		Cost of Materials used, contract work, and resale goods sold		Gross value added	Total book value of fixed assets, January 1	Capital expenditures during the year	
		(Average for the year)				Shipments of manufactured products	Raw materials and containers used	New structures and new machinery and equipment					
		Total	Paid employees						Total				Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
ESTABLISHMENTS WITH 5 OR MORE WORKERS <sup>3/</sup>													
Footwear, other wearing apparel and made-up textile goods													
1956	1,725	33,929	31,067	10799.0	173273.0	152215.0	112472.0	103398.0	60801.0	38927.0	2318.0	2060.0	
1957	1,923	34,552	31,453	10990.0	166611.0	150495.0	107498.0	100689.0	59113.0	38679.0	3178.0	2588.0	
1958	1,930	31,157	27,822	28723.0	151972.0	137027.0	94894.0	90513.0	57078.0	36594.0	2931.0	2602.0	
1959	1,868	31,813	28,843	30448.0	208253.0	189566.0	128214.0	125249.0	78039.0	52252.0	7819.0	7329.0	
1960	1,845	30,022	26,970	28437.0	188267.0	158999.0	122138.0	106981.0	66129.0	37633.0	3724.0	3044.0	
1962	2,196	28,301	24,538	26555.0	182483.0	145377.0	117613.0	100207.0	64870.0	44577.0	7717.0	7182.0	
1963	2,202	29,133	25,223	29795.7	212370.7	166969.4	136822.6	117226.7	75548.1	49772.0	5464.6	5199.4	
1964	1,829	30,863	27,185	33045.2	196753.3	153255.8	121128.6	104709.0	75624.7	45962.1	4842.1	3794.2	
1965	1,794	29,037	25,584	33709.6	200478.4	153477.6	120640.0	103518.2	79838.4	48994.3	6069.8	3763.2	
1966	1,865	27,563	23,998	35189.7	199260.3	149650.5	115917.3	75813.3	83343.0	50111.6	5311.2	4594.3	
1968	2,432	37,848	33,368	51215.6	273567.2	181109.4	167393.7	138198.1	106173.0	121906.3	9713.9	6471.7	
1969	2,826	39,150	33,572	52956.2	250077.7	172472.7	141715.2	121762.4	102902.5	80692.6	10535.7	6511.0	
1970	2,676	40,178	35,156	62579.6	305246.5	206561.0	180600.9	152013.9	124645.6	111482.7	12827.8	10277.8	
Wood and cork products, except furniture													
1956	344	19,646	19,400	31689.0	152453.0	121722.0	93078.0	61353.0	59375.0	55015.0	7261.0	5834.0	
1957	462	22,436	22,124	33492.0	175861.0	151993.0	101891.0	79633.0	73970.0	66955.0	10150.0	9293.0	
1958	471	25,517	25,160	38865.0	177118.0	147383.0	82467.0	73719.0	94851.0	82636.0	11086.0	8736.0	
1959	442	21,428	21,064	34020.0	168603.0	155964.0	89207.0	70318.0	79396.0	77337.0	10815.0	9773.0	
1960	330	19,371	19,186	32601.0	184465.0	151372.0	109440.0	81275.0	79505.0	84668.0	10235.0	9555.0	
1962	407	23,649	23,387	40797.0	275118.0	230077.0	161503.0	129628.0	103615.0	108684.0	25715.0	23247.0	
1963	452	26,942	26,613	48942.6	337813.7	305089.0	199026.8	161344.1	138786.2	109327.2	28309.6	23835.1	
1964	396	30,125	29,887	57893.9	389776.6	349846.7	227446.1	188746.2	156532.5	150315.5	51990.4	42949.1	
1965	408	32,851	32,509	67710.7	369211.5	318781.6	214687.9	169278.8	154523.6	167374.9	33941.8	30852.6	
1966	484	34,124	33,867	72149.6	410549.9	336185.5	232838.8	178854.4	177707.1	187652.5	48649.2	40758.1	
1968	566	39,195	38,789	91344.3	564790.9	466957.6	320319.7	239480.3	244651.2	271825.4	21597.0	19053.5	
1969	531	38,563	38,049	96894.2	560330.7	440404.8	337753.7	238495.7	222577.0	223595.1	47864.5	43967.5	
1970	539	38,855	38,366	103964.9	657415.2	514536.1	395439.6	265195.9	261975.6	280820.7	67220.6	57976.3	
Furniture and fixtures													
1956	340	6,496	6,062	7805.0	26813.0	25300.0	13929.0	12696.0	12884.0	7443.0	1244.0	329.0	
1957	373	6,090	5,660	8000.0	29682.0	28240.0	16399.0	16087.0	13283.0	7400.0	862.0	823.0	
1958	354	5,041	4,796	6386.0	28768.0	25589.0	15935.0	13300.0	12833.0	7996.0	3159.0	527.0	
1959	374	5,604	5,185	7057.0	30896.0	27308.0	16104.0	14096.0	14792.0	7297.0	941.0	622.0	
1960	340	5,630	5,112	7404.0	34273.0	31284.0	18620.0	16587.0	15653.0	7925.0	1053.0	651.0	
1962	375	6,031	5,592	8546.0	35302.0	30936.0	19169.0	16358.0	16133.0	20157.0	1225.0	906.0	
1963	438	7,520	6,949	9836.2	47245.8	39403.1	25533.9	22255.8	21711.9	25470.2	2990.2	2254.1	
1964	427	7,575	6,962	11569.0	60134.2	49768.6	33502.7	26689.7	26631.5	23468.5	7305.4	5928.3	
1965	389	7,829	7,383	11326.4	53753.1	42962.7	30572.1	23251.8	23181.0	34749.9	1695.9	1466.0	
1966	378	7,228	6,838	12987.2	62232.0	54717.2	32897.5	29736.1	29334.5	23907.7	1486.8	1318.9	
1968	361	7,962	7,412	15093.8	59107.5	52752.4	31429.4	28514.6	27678.1	29518.7	1518.2	1406.4	
1969	414	8,308	7,728	16224.9	65533.4	59002.9	37703.8	32982.2	27829.6	33961.5	1285.0	1228.8	
1970	302	6,876	6,494	14125.3	56417.4	52606.6	29525.3	26680.0	26892.1	27819.2	730.1	723.2	
Paper and paper products													
1956	75	3,200	3,009	5903.0	49326.0	45926.0	30367.0	26349.0	18959.0	16717.0	3572.0	3436.0	
1957	65	3,279	3,232	6106.0	77597.0	75866.0	34093.0	29859.0	23504.0	18520.0	2035.0	1907.0	
1958	53	2,950	2,936	6983.0	63370.0	60303.0	34136.0	29806.0	28901.0	26677.0	13217.0	11919.0	
1959	89	4,031	4,009	9776.0	91603.0	85562.0	51109.0	45875.0	40494.0	34675.0	12922.0	11116.0	
1960	71	4,635	4,621	11751.0	115188.0	108779.0	69099.0	61870.0	46089.0	6384.0	19937.0	17514.0	
1962	74	5,426	5,371	13799.0	141193.0	134425.0	92829.0	82809.0	48364.0	78784.0	15302.0	14150.0	
1963	113	6,575	6,541	17201.1	177202.1	163321.9	115021.5	99625.0	62180.6	122581.9	10021.9	8906.8	
1964	103	6,927	6,800	17643.6	188430.2	181974.5	132519.5	121070.9	55910.7	120120.6	8950.9	8012.9	
1965	95	6,500	6,387	17627.7	197416.2	188348.0	128690.4	118176.3	68725.8	126294.3	16077.5	15915.0	
1966	118	7,227	7,148	22067.2	241587.6	234998.5	161991.6	148615.0	79950.0	159942.7	18518.7	17882.3	
1968	141	7,742	7,585	25468.6	320652.3	307128.8	198321.7	184291.4	122330.6	165886.5	10849.7	9092.9	
1969	96	7,879	7,807	28499.6	319626.4	311825.5	196417.2	178310.1	122845.2	168436.3	10418.8	8312.2	
1970	157	8,928	8,823	37694.2	524176.2	485381.3	323152.9	296874.2	201023.3	187984.8	56221.8	56492.1	

See footnotes at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970—Continued

(Value and cost in thousand pesos)

Major industry group and year	Number of establishments	Employment (average for the year)		Total payrolls for paid employees	Value of gross output <sup>2/</sup>		Cost of Materials used, contract work, and resale goods sold		Gross value added	Total book value of fixed assets, January 1	Capital expenditures during the year		
		Total	Paid employees		Total	Shipments of manufactured products	Total	Raw materials and containers used			Total	New structures and new machinery and equipment	
													(1)
Printed and published materials and allied products													
1956	299	9,803	9,566	23245.0	70073.0	59741.0	32889.0	27574.0	37184.0	32114.0	5297.0	4651.0	
1957	370	11,460	11,226	27084.0	90959.0	70488.0	38194.0	32975.0	52765.0	35893.0	5399.0	4709.0	
1958	336	10,571	10,177	26057.0	93508.0	78750.0	38691.0	36543.0	54817.0	38424.0	2856.0	2309.0	
1959	389	12,340	12,064	34244.0	97391.0	87145.0	43239.0	40700.0	54102.0	44958.0	6089.0	4548.0	
1960	383	12,073	11,789	30280.0	112716.0	95368.0	51277.0	48473.0	61439.0	40715.0	6715.0	6014.0	
1962	416	12,703	12,265	32310.0	127950.0	108788.0	65395.0	60703.0	62555.0	64338.0	5996.0	4523.0	
1963	424	13,140	12,749	37278.2	156661.1	127836.8	72644.9	66350.0	64016.2	67661.8	9754.1	8601.5	
1964	399	14,307	13,992	42076.4	197434.3	171676.3	105493.8	87547.0	91940.5	88939.5	10981.4	9329.6	
1965	447	14,726	14,430	45066.5	230096.8	167307.5	111902.1	93356.0	118194.7	102045.0	18981.9	18583.4	
1966	418	13,972	13,786	43784.7	199821.0	166696.7	95062.3	84368.8	104758.7	100153.3	14081.6	9649.4	
1968	469	14,828	14,414	52006.9	238003.2	202033.1	108551.4	96846.4	129451.8	105814.7	12730.5	10525.9	
1969	517	15,325	14,720	57071.4	265770.9	202847.3	127537.5	112381.7	138233.4	98214.0	8451.3	7537.3	
1970	514	16,011	15,506	61173.2	306989.2	236693.3	146217.0	134615.1	160772.2	110116.4	6337.1	6092.0	
Leather and leather products, except footwear and other wearing apparel													
1956	29	714	690	939.0	7193.0	7199.0	4321.0	4239.0	2872.0	1735.0	697.0	609.0	
1957	48	1,061	1,018	1230.0	8827.0	8014.0	5105.0	5013.0	3722.0	2490.0	452.0	421.0	
1958	40	1,006	966	1287.0	8647.0	8924.0	5385.0	5275.0	3262.0	3055.0	1375.0	403.0	
1959	35	1,069	1,039	1640.0	10980.0	10139.0	7654.0	6949.0	3326.0	3393.0	791.0	720.0	
1960	48	1,512	1,467	2433.0	20157.0	18511.0	11952.0	11687.0	8205.0	5535.0	828.0	774.0	
1962	59	1,599	1,515	2632.0	17309.0	15853.0	10863.0	10596.0	6446.0	6069.0	995.0	476.0	
1963	67	1,740	1,706	2673.5	29017.3	17213.9	22917.5	11385.0	6999.8	5862.1	607.4	287.4	
1964	101	2,343	2,196	3302.7	22084.1	21905.2	13983.6	13520.5	8100.5	8845.1	695.5	553.2	
1965	71	2,206	2,146	3882.5	23187.8	21594.0	14416.9	13912.6	8770.9	9012.0	1152.4	797.3	
1966	70	2,214	2,144	3792.4	23253.2	21663.4	14649.9	13542.3	8603.3	9719.8	347.4	281.5	
1968	56	2,274	2,229	4760.0	29320.5	26161.6	18146.5	17431.4	11174.0	10609.0	499.7	472.9	
1969	65	2,523	2,454	5490.9	29333.1	28653.2	18165.6	17506.2	11167.5	13533.0	452.9	324.1	
1970	68	1,760	1,708	4085.7	33006.8	32813.0	21947.0	21120.1	11099.8	11774.3	446.9	417.8	
Rubber products													
1956	20	2,604	2,595	3821.0	18489.0	17421.0	10008.0	9492.0	8481.0	8075.0	500.0	439.0	
1957	35	3,678	3,663	8082.0	61139.0	50539.0	31869.0	24673.0	29270.0	44081.0	40562.0	20362.0	
1958	36	4,828	4,811	10371.0	83776.0	74887.0	36476.0	33068.0	47300.0	45033.0	4363.0	4105.0	
1959	34	5,219	5,206	12630.0	103078.0	92946.0	43889.0	39709.0	59189.0	45367.0	3841.0	3711.0	
1960	34	4,986	4,971	13944.0	117192.0	105837.0	61071.0	56840.0	96121.0	46375.0	7823.0	6533.0	
1962	96	5,955	5,928	14647.0	157090.0	139741.0	78944.0	72213.0	78146.0	38573.0	12733.0	11851.0	
1963	65	6,823	6,792	17569.3	169573.8	156247.1	91382.6	85356.1	78191.2	62229.0	7895.3	7299.1	
1964	72	6,544	6,586	18313.4	187883.4	163955.7	95863.6	88543.1	92019.8	66135.0	9477.1	9054.6	
1965	66	6,738	6,698	19158.0	176826.7	157788.9	94243.5	86316.0	82583.2	68907.8	10778.5	9833.6	
1966	63	7,454	7,416	21350.6	210810.7	182559.1	108906.0	97849.2	101904.7	92888.4	14399.3	13811.7	
1968	106	9,111	9,047	27760.4	258073.5	229130.5	130605.7	113987.3	127467.8	90116.8	15540.6	11724.5	
1969	104	8,449	8,372	27305.2	263184.7	236337.6	135891.9	117046.7	127292.8	95576.8	10999.1	10098.6	
1970	84	8,612	8,571	32377.2	401954.9	338710.8	210417.6	172275.0	191537.3	96256.6	11345.1	11018.1	
Chemicals and chemical products													
1956	252	9,623	9,392	15103.0	271924.0	252248.0	175535.0	157192.0	96399.0	79692.0	11808.0	11040.0	
1957	218	10,167	10,019	28183.0	292770.0	291420.0	196318.0	191112.0	96452.0	84971.0	16628.0	15705.0	
1958	281	11,626	11,376	33136.0	346914.0	339294.0	227937.0	221246.0	118977.0	92585.0	24426.0	12818.0	
1959	293	12,512	12,212	37056.0	491728.0	406546.0	267213.0	253292.0	152515.0	107373.0	11002.0	9150.0	
1960	312	12,685	12,369	37808.0	460467.0	420890.0	288900.0	251493.0	171967.0	98479.0	18117.0	13694.0	
1962	303	15,387	15,187	49620.0	617346.0	585521.0	416785.0	388657.0	200961.0	121118.0	29365.0	24439.0	
1963	303	16,290	15,999	56341.3	758891.4	730181.4	528043.4	496328.0	230848.0	134798.5	27516.3	25953.9	
1964	298	18,375	18,203	68473.6	933952.4	866806.0	640605.0	592198.4	293347.4	171796.2	35575.1	32644.8	
1965	317	19,767	19,550	78771.9	1017789.9	950322.0	696686.8	544100.8	321093.2	225999.8	51125.6	44361.7	
1966	396	20,897	20,682	92700.6	1191465.7	1082153.6	805735.5	71103.3	38370.2	371399.0	84791.7	87794.4	
1968	275	23,202	23,054	117154.8	1552472.8	1436606.9	1017338.6	917513.9	535134.2	321507.9	98426.4	75934.8	
1969	335	23,964	23,377	124142.2	1480374.4	1361406.3	917771.9	807893.1	562602.5	360217.9	35688.8	29274.4	
1970	280	22,774	22,698	150678.4	2170255.8	1946338.3	1358516.8	1220627.5	811739.0	530483.8	70589.9	67399.0	

See footnotes at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1</sup>—Continued

(Value and cost in thousands of pesos)												
Major industry group and year	Number of establishments	Employment		Total payrolls for paid employees	Value of gross output <sup>2</sup>		Cost of Materials used, contract work and resale goods sold		Gross value added	Total book value of fixed assets, January 1	Capital expenditures during the year	
		Total	Paid employees		Total	Shipments of manufactured products	Total	Raw materials and components used			Total	New structures and new machinery and equipment
Products of petroleum and coal												
1956	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1957	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1958	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1959	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1960	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1962	10	1,219	1,219	784.30	392728.0	372768.0	232015.0	221430.0	160713.0	75925.0	101568.0	101212.0
1963	12	1,344	1,344	11171.1	506944.8	491824.7	310497.6	279177.4	196447.2	273848.0	5504.3	5504.3
1964	7	1,198	1,198	9793.9	461173.5	440164.8	350739.3	309724.5	110434.2	254500.0	4988.6	2152.9
1965	7	1,054	1,054	8731.0	469644.3	444434.6	350171.8	309914.7	119472.5	237903.9	7119.4	7106.8
1966	8	1,043	1,043	9822.3	505294.7	473601.5	382479.5	342205.6	122815.2	231542.6	20492.4	20492.4
1968	11	1,139	1,139	12111.4	767934.8	697959.6	546804.5	490233.9	221130.3	294890.8	20384.6	20384.6
1969	15	1,138	1,134	13432.1	930498.2	911779.2	618865.2	533061.0	311633.0	291991.6	11369.4	11369.4
1970	14	1,523	1,520	16936.6	1388313.0	1316228.8	924704.6	830739.4	463608.4	275563.3	173392.6	172572.2
Non-metallic mineral products, except petroleum and coal												
1956	168	6,020	5,766	11853.0	79013.0	73984.0	35594.0	22379.0	43419.0	52708.0	2412.0	2061.0
1957	175	7,268	7,079	14536.0	87741.0	75904.0	38174.0	20539.0	49567.0	62583.0	14831.0	14470.0
1958	193	7,662	7,424	15320.0	93655.0	81352.0	39230.0	25138.0	54225.0	68792.0	7956.0	7471.0
1959	167	8,056	7,869	17964.0	106812.0	100534.0	45948.0	25505.0	60864.0	76879.0	12288.0	11234.0
1960	184	8,164	7,992	18299.0	107839.0	101314.0	43587.0	25488.0	64252.0	87892.0	23965.0	20179.0
1962	175	9,531	9,341	22922.0	152212.0	146358.0	61139.0	33381.0	91073.0	120823.0	14381.0	12778.0
1963	238	11,386	11,148	26891.6	187769.9	180965.1	70391.7	43321.7	113787.2	159592.7	33823.0	31931.7
1964	275	11,904	11,651	30384.6	227732.0	219826.4	88724.9	53309.4	139007.1	184180.9	51794.0	48871.4
1965	304	13,635	13,251	37967.8	257028.8	235035.3	100789.0	61849.4	158239.8	242384.5	32345.9	25368.3
1966	239	13,263	13,057	38733.0	286539.7	276704.8	122133.8	74510.8	164405.9	264517.5	78550.9	77318.4
1968	358	16,337	16,028	52256.6	396898.7	371277.6	167790.3	105513.9	229108.4	437445.3	109269.5	106755.3
1969	458	17,621	16,970	57135.1	425102.2	406063.2	190293.9	124037.1	234808.3	519397.5	57919.0	56533.2
1970	468	18,622	17,999	65459.0	468873.4	435328.0	220307.5	145024.9	248365.9	711660.2	157793.5	141916.0
Basic metal products												
1956	35	1,334	1,289	2759.0	14812.0	13847.0	6742.0	3045.0	8070.0	16043.0	318.0	318.0
1957	39	1,441	1,433	2647.0	24212.0	21928.0	16423.0	14749.0	7789.0	5522.0	407.0	486.0
1958	33	2,607	2,594	5218.0	37942.0	35700.0	19210.0	15797.0	18732.0	14631.0	3934.0	3052.0
1959	34	3,174	3,164	7614.0	54991.0	54702.0	28559.0	23571.0	26432.0	29129.0	4488.0	3795.0
1960	34	3,468	3,460	8962.0	57249.0	53065.0	20512.0	25950.0	26737.0	31221.0	2936.0	2829.0
1962	84	4,491	4,438	10136.0	77895.0	74179.0	47397.0	42846.0	30498.0	36670.0	6836.0	6774.0
1963	64	5,095	5,056	12175.9	98148.7	100941.3	57901.6	52072.0	40247.0	49302.5	23087.3	22940.4
1964	90	4,837	4,823	12600.6	140567.9	132185.5	59972.9	87233.3	46995.0	100999.1	4157.0	3945.0
1965	52	4,897	4,879	13106.9	167205.1	157622.6	109704.8	104052.6	37900.5	66204.9	30000.7	15487.9
1966	68	5,254	5,232	13053.3	216921.0	203274.0	119807.6	142224.9	67413.4	89653.3	26958.9	23709.0
1968	85	8,362	8,267	29448.0	376900.9	367662.9	261441.3	247221.6	115459.5	135781.0	12528.1	12252.1
1969	61	9,195	9,174	38494.1	308642.7	472563.0	377551.2	358508.3	131091.5	134887.7	317394.7	315959.3
1970	81	10,917	10,902	49422.1	905374.9	743970.5	652184.0	613662.5	253190.9	699498.4	273747.6	271560.1
Metal products, except machinery and transport equipment												
1956	251	7,782	7,541	19816.0	86874.0	81488.0	30353.0	49938.0	36521.0	29519.0	4871.0	4647.0
1957	235	9,021	8,883	19340.0	104362.0	93908.0	60867.0	54437.0	43495.0	31837.0	5852.0	5144.0
1958	315	10,938	10,605	21796.0	146829.0	135399.0	76667.0	72832.0	70162.0	33521.0	6952.0	5726.0
1959	259	10,486	10,218	24008.0	162903.0	145098.0	91429.0	86778.0	71474.0	36532.0	7383.0	6771.0
1960	279	14,454	14,206	32767.0	227282.0	209962.0	130443.0	123084.0	96839.0	52259.0	15425.0	14121.0
1962	274	14,110	13,887	32949.0	275205.0	234930.0	177222.0	165035.0	97983.0	86478.0	25976.0	24430.0
1963	303	15,606	15,413	36326.4	311782.6	282041.6	204901.2	191220.3	106881.4	90191.0	15740.9	15001.3
1964	306	16,760	16,574	42352.2	361037.0	319112.0	242213.1	223417.8	118823.9	104616.0	13348.3	12371.7
1965	307	17,499	17,264	51486.6	367438.0	319439.9	236473.9	221101.3	130964.1	105724.2	11017.7	10784.7
1966	347	18,139	17,780	51672.1	436404.0	37448.9	284344.0	264470.1	152066.0	98464.1	13227.4	12768.0
1968	499	23,401	22,996	76475.1	513945.5	405752.0	312576.4	277841.3	199369.1	136740.0	16860.3	16081.3
1969	477	23,152	22,726	73889.8	528792.2	425628.2	306122.0	277221.6	220670.2	139676.3	19054.9	16525.7
1970	454	16,197	15,863	51560.3	904971.5	472904.6	349470.8	322198.9	155900.7	128009.2	14481.4	14093.7

See footnotes at end of table.

Table XVI.3—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1</sup> - Continued

(Value and cost in thousand prices)

Major industry group and year	Number of establishments	Employment (Average for the year)			Value of gross output <sup>2</sup>		Cost of Materials used, contract work and resale goods sold		Gross value added <sup>3</sup>	Total book value of fixed assets, January 1	Capital expenditures during the year	
		Total	Paid employees	Total pay-rolls for paid em- ployees	Total	Shipments of manu- factured products	Total	Raw materials and con- tractors used				
											Total	New structures and new machinery and equipment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
<b>Machinery except electrical machinery</b>												
1956	89	4,087	4,018	7734.0	34657.0	18927.0	19078.0	14063.0	15579.0	18797.0	4272.0	2749.0
1957	123	5,191	5,060	11024.0	48225.0	22507.0	22745.0	13113.0	23480.0	17199.0	2116.0	1605.0
1958	118	4,896	4,741	12186.0	60689.0	29374.0	31051.0	13642.0	29130.0	19446.0	2897.0	2644.0
1959	145	4,309	4,161	9055.0	39613.0	14151.0	12344.0	6081.0	23269.0	16418.0	2160.0	(a)
1960	95	3,841	3,778	9550.0	51022.0	26845.0	18329.0	7433.0	32693.0	17989.0	2007.0	1917.0
1962	164	4,658	4,516	11134.0	59368.0	38719.0	19860.0	11234.0	39508.0	19864.0	3194.0	2869.0
1963	132	4,007	3,829	10679.2	47983.3	20652.6	22745.7	10461.2	25237.6	16389.5	1030.2	888.8
1964	150	3,974	3,787	8928.0	35503.1	18427.4	16680.8	11257.0	18822.3	20794.3	1659.2	1047.2
1965	138	4,016	3,905	9170.0	36187.6	18159.4	17619.2	9642.6	18568.4	20208.9	5099.2	4251.7
1966	167	3,985	3,888	10038.4	41354.5	19614.4	18612.5	11102.6	22742.0	24648.1	3877.9	2208.7
1968	239	5,808	5,550	19952.4	91029.5	48632.5	49564.4	32569.3	41845.1	49181.9	4576.6	4555.8
1969	327	6,364	5,710	16443.7	72543.9	40868.7	32849.7	22181.7	39694.2	47441.4	4168.9	3872.7
1970	334	6,714	6,486	21375.3	113311.9	70220.1	57230.3	46950.8	56081.6	61916.7	6631.4	6001.6
<b>Electrical machinery, apparatus appliances and supplies</b>												
1956	58	1,451	1,392	2807.0	18213.0	15873.0	9619.0	8712.0	8594.0	5541.0	2389.0	2080.0
1957	67	2,625	2,584	6159.0	34134.0	31384.0	15638.0	14629.0	18496.0	11830.0	2876.0	...
1958	54	2,600	2,570	5747.0	34134.0	31384.0	15638.0	14629.0	18496.0	11830.0	2876.0	...
1959	84	6,457	6,419	13660.0	100724.0	84733.0	46983.0	34841.0	53721.0	23919.0	6773.0	...
1960	93	7,476	7,417	16179.0	112574.0	95329.0	58062.0	50622.0	54512.0	31281.0	10444.0	9633.0
1962	114	11,060	10,999	25130.0	202301.0	148249.0	110440.0	82311.0	91361.0	51430.0	15309.0	14399.0
1963	106	11,007	10,936	27289.7	277468.7	184564.8	148951.9	106380.1	122516.8	71164.4	14380.3	13240.2
1964	164	13,927	13,810	34832.5	306624.5	209807.8	173393.5	133289.0	69985.8	23146.2	22917.7	...
1965	184	14,066	13,948	37705.9	292995.7	210542.3	173383.6	124940.5	119612.1	89962.9	10082.7	8704.7
1966	155	13,014	12,945	40188.6	306375.7	216567.1	118663.2	117689.0	127712.5	97816.6	10094.1	9015.6
1968	218	13,080	12,932	41045.1	348029.3	271382.3	200137.9	130297.2	147891.4	105896.1	10549.9	8966.6
1969	207	12,290	12,132	40568.0	359432.1	203725.8	166240.1	155706.3	109990.2	11772.1	10239.2	...
1970	204	13,488	13,298	51683.1	517510.0	403751.5	291266.7	232084.0	226236.3	98940.4	56737.2	44791.3
<b>Transport and equipment</b>												
1956	141	6,048	5,904	14523.0	88072.0	54411.0	51177.0	43354.0	36300.0	34529.0	1817.0	1388.0
1957	180	6,267	6,059	14752.0	89199.0	60050.0	56730.0	44921.0	32469.0	35479.0	4220.0	...
1958	192	7,224	6,955	17422.0	100229.0	61855.0	62034.0	47539.0	38195.0	37429.0	4252.0	...
1959	199	8,161	7,912	19293.0	115874.0	76845.0	69580.0	52741.0	46294.0	43568.0	4541.0	...
1960	205	7,210	6,972	18442.0	132381.0	93666.0	80316.0	68362.0	52065.0	39050.0	6023.0	5186.0
1962	302	10,654	10,316	26344.0	272169.0	177415.0	176375.0	134710.0	95794.0	60847.0	5966.0	5384.0
1963	297	11,836	11,529	31954.8	397060.2	252163.0	247994.0	189462.2	149066.2	74566.6	7208.5	6385.0
1964	324	12,402	12,047	33615.5	431365.5	324578.7	287214.3	245834.7	144751.3	83699.9	14409.5	12245.4
1965	292	12,710	12,495	37837.7	392224.5	284072.8	284935.4	218908.4	107289.1	82283.5	13925.3	8425.5
1966	247	12,957	12,182	38894.8	410535.8	315358.8	299485.1	242503.1	111050.7	93553.8	10380.1	8818.1
1968	377	14,974	14,281	50581.2	598060.5	434760.7	435313.2	366660.9	162750.3	112784.6	28399.1	21349.9
1969	493	15,207	14,506	49518.0	547604.2	418956.4	396414.1	316653.2	151190.1	128270.0	19243.9	18385.6
1970	613	13,565	12,763	50213.7	628684.6	410973.2	411952.4	317917.7	216732.2	157923.3	8692.5	7892.7
<b>Miscellaneous manufactures</b>												
1956 <sup>4</sup>	174	5,097	4,929	11394.0	172214.0	168907.0	74417.0	70136.0	97797.0	70244.0	4606.0	3932.0
1957	222	5,363	4,947	977.5	137042.0	134573.0	39303.3	42838.0	97738.7	56320.0	5152.9	...
1958	182	5,050	4,839	11524.2	156777.0	156438.0	44403.1	52318.0	112373.9	59392.0	(5)	...
1959	251	5,099	4,891	12112.0	188955.0	176518.0	53267.4	55189.0	135687.6	59238.0	6879.8	...
1960 <sup>5</sup>	207	4,773	4,598	11507.4	208656.0	189876.0	82954.0	90836.0	125732.0	72393.0	7126.0	4945.0
1962	191	4,651	4,469	7951.0	40918.0	37237.0	21289.0	19099.0	19647.0	24100.0	5388.0	5348.0
1963	253	5,895	5,593	10000.4	47328.9	43460.5	24775.6	22789.9	22553.3	29744.4	2829.9	2567.2
1964	257	6,755	6,510	11918.4	62143.2	52798.8	31737.2	28388.8	30406.0	30781.5	4517.3	3403.8
1965	294	6,861	6,574	14284.9	93112.9	90309.7	48612.6	42506.3	44500.3	38493.7	5646.3	4177.8
1966	265	6,516	6,069	13559.3	83145.3	79032.0	43394.2	37141.5	39751.1	43584.7	7764.6	6963.3
1968	298	7,636	7,271	15897.8	94025.4	86917.2	49897.3	45843.8	44128.1	43524.3	5710.9	4996.1
1969	282	7,537	7,332	17603.1	129681.7	121937.9	77704.8	72034.4	51916.9	42977.9	11308.5	9063.9
1970	290	8,969	8,869	25169.2	204055.3	183849.8	124799.1	115481.0	79296.2	74000.9	14082.0	12703.0

See footnotes at end of table.



Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1/</sup> - Continued

(Value and cost in thousand pesos)												
Major industry group and year	Number of establishments	Employment (Average for the year)			Value of gross output <sup>2/</sup>		Cost of Materials used, contract work and resale goods sold		Census value added <sup>3/</sup>	Total book value of fixed assets, January 1	Capital expenditures during the year	
		Total	Paid employees	Total pay- roll for paid em- ployees	Total	Shipments of manu- factured products	Total	Raw materials and con- tractors used			Total	New struc- tures and machin- ery and equipment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
ESTABLISHMENTS WITH 20 OR MORE WORKERS <sup>4/</sup>												
Food, manufactured												
1956	336	37,770	37,449	63283.0	517723.0	489614.0	287682.0	230496.0	230041.0	232247.0	16204.0	15115.0
1957	346	39,740	39,429	65555.0	566592.0	548851.0	323282.0	285286.0	243410.0	224518.0	20593.0	19503.0
1958	320	39,429	39,429	68152.0	679378.0	640759.0	363249.0	318953.0	316129.0	227660.0	21642.0	21042.0
1959	319	41,051	40,823	76530.0	744668.0	723783.0	410732.0	371720.0	353726.0	232002.0	25993.0	21953.0
1960	326	43,243	42,994	81244.0	938992.0	864029.0	507664.0	434466.0	431328.0	269313.0	32388.0	29607.0
1961	417	45,497	45,151	91574.0	1385344.0	1322448.0	838706.0	782364.0	546528.0	312758.0	63770.0	60125.0
1962	374	47,009	46,682	99482.5	1704731.3	1619565.6	983542.3	927724.8	716159.0	378066.4	48586.7	45744.4
1963	376	59,564	49,241	116611.0	1996284.9	1800713.2	1119916.8	1028373.1	786368.1	421956.0	87932.5	7671.7
1964	358	53,132	52,761	123311.7	1778285.4	1679026.4	1159899.4	1077904.1	613386.0	595900.1	127090.7	11743.3
1965	341	50,135	50,771	140174.9	1815505.8	1760826.5	1152762.7	1096395.0	662743.1	707476.6	135212.1	140310.0
1966	378	60,457	60,762	171193.4	2547216.1	2402603.1	1559414.7	1479602.7	987914.4	830070.6	132156.3	144434.3
1967	313	60,764	60,472	187774.0	2771812.2	2661008.4	1696294.4	1591176.7	1075517.8	914385.6	124129.5	116361.2
1970	323	63,449	63,209	223257.8	3698711.9	3509882.4	2166401.0	1972482.0	1532310.9	1094904.0	235246.8	230755.8
Beverages												
1956	56	7,612	7,578	19331.0	145578.0	143648.0	49051.0	45926.0	96527.0	46306.0	1788.0	1769.0
1957	63	8,423	8,404	23180.0	157232.0	156514.0	53381.0	50573.0	103851.0	43986.0	4207.0	3972.0
1958	61	8,486	8,471	23688.0	178335.0	175917.0	60322.0	56257.0	118013.0	44263.0	7155.0	6392.0
1959	63	8,869	8,850	25946.0	198038.0	196109.0	66230.0	62733.0	131808.0	44152.0	8325.0	7985.0
1960	62	8,837	8,826	27530.0	212488.0	210581.0	78130.0	74444.0	134358.0	47824.0	12119.0	11697.0
1961	63	11,144	11,128	30335.0	264377.0	262472.0	105453.0	100524.0	158884.0	61627.0	11060.0	8791.0
1962	61	10992	10,975	37150.2	327907.4	315026.6	125577.6	110553.1	202329.8	67170.8	8446.4	7133.8
1963	61	11,378	11,362	40186.8	387077.7	381938.7	143658.2	139492.1	240049.5	77058.1	17696.1	16647.0
1964	61	11,765	11,745	44115.8	418980.2	416508.8	149724.2	144633.2	269256.0	84631.4	16809.3	13628.3
1965	62	13,245	13,235	57002.1	498050.6	495309.4	191522.5	181513.8	306528.1	98273.6	24826.3	22401.1
1966	63	12,589	12,580	51473.1	623975.3	619137.8	256701.7	247386.6	367273.6	118352.3	17967.7	14472.7
1967	66	14,782	14,770	60309.5	867569.9	868005.6	270888.9	260073.2	416681.0	180006.0	30279.3	27316.5
1970	67	14,854	14,843	74052.9	843970.1	827685.5	340514.9	310307.4	503455.2	187873.9	25089.0	24956.5
Tobacco products												
1956	48	10,753	10,720	15945.0	151048.0	147210.0	79906.0	78276.0	71142.0	17662.0	6080.0	5656.0
1957	53	11,476	11,442	18303.0	171506.0	171789.0	74463.0	73647.0	97043.0	22755.0	6178.0	5471.0
1958	53	10,744	10,711	18585.0	201518.0	208643.0	98581.0	97757.0	111937.0	29267.0	6965.0	5628.0
1959	56	11,848	11,808	20223.0	197286.0	185824.0	107375.0	106463.0	89911.0	35231.0	5689.0	4741.0
1960	53	12,906	12,871	21200.0	185226.0	179043.0	100850.0	99273.0	84376.0	34934.0	6884.0	6384.0
1961	51	12,562	12,519	20716.0	206344.0	186993.0	94560.0	87420.0	111794.0	34123.0	13038.0	11206.0
1962	51	12,835	12,801	22338.8	252244.8	238133.4	139477.4	130979.8	112807.4	43396.0	8013.9	6706.4
1963	52	13,846	13,820	24799.8	276289.3	252552.3	164581.5	151038.4	111707.8	43790.3	9712.2	976.9
1964	48	13,764	13,729	24516.7	321202.9	309664.3	172621.5	163142.9	151581.4	53967.8	13155.0	11884.0
1965	46	14,830	14,808	31814.8	380367.6	352866.5	218688.7	200602.4	16198.9	53293.9	15004.3	14029.2
1966	51	18,668	18,642	40068.3	587646.5	534855.9	301703.7	275282.1	285944.8	91774.7	20260.0	18337.3
1967	47	20,156	20,116	48927.5	731540.5	629021.3	334358.7	272792.2	397181.8	99485.1	11919.0	10994.4
1970	49	22,487	22,437	58204.2	873897.1	807619.6	452705.2	421414.5	421151.9	114194.6	39167.9	39129.0
Textiles												
1956	80	8,524	8,508	15965.0	115355.0	107876.0	73449.0	66988.0	41906.0	31163.0	20418.0	20292.0
1957	113	13,863	13,762	22959.0	191235.0	179588.0	123200.0	116173.0	68035.0	68474.0	22538.0	21335.0
1958	74	16,852	16,786	28819.0	228730.0	218214.0	146002.0	137045.0	82728.0	97431.0	40627.0	38502.0
1959	79	18,743	18,730	34592.0	249263.0	232015.0	164733.0	149069.0	84530.0	120876.0	34798.0	29447.0
1960	81	24,411	24,400	42220.0	276578.0	258618.0	174724.0	159132.0	101854.0	170556.0	67380.0	65066.0
1961	89	30,164	30,159	52417.0	385167.0	365816.0	248395.0	227362.0	136772.0	321837.0	86655.0	54446.0
1962	102	34,523	34,453	60119.4	507088.9	464491.5	324602.7	297152.4	182486.2	367406.1	70602.2	68507.2
1963	105	34,939	34,695	62178.8	471103.3	433698.1	302006.4	274301.5	165096.9	440305.1	43814.2	42854.0
1964	110	33,398	33,367	55770.5	445331.7	420198.4	264891.5	244749.9	180440.2	478607.5	38847.4	37046.5
1965	105	35,815	35,782	77002.9	506499.2	478967.5	323351.9	299335.0	182907.3	437897.4	51999.4	47884.5
1966	115	45,405	45,376	108084.5	798682.8	711297.6	456976.1	402308.3	302106.7	552714.4	70758.5	68149.3
1967	111	46,334	46,322	110879.7	786887.7	746707.7	494835.9	436701.5	292051.9	540713.4	72685.2	67560.7
1970	106	45,954	45,940	113077.4	1011612.9	900235.5	685862.8	587182.1	32770.1	586227.5	88822.5	80289.0

See footnotes at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970—Continued

(Value and cost in thousand pesos)												
Major industry group in year	Number of establishments	Employment (Average for the year)		Value of gross output <sup>2/</sup>		Cost of Materials used, contract work and resale goods sold		Census value added	Total book value of fixed assets, January 1	Capital expenditures during the year		
		Total	Paid employees	Total pay- rolls for paid em- ployees	Total	Shipments of manu- factured products	Total			Total	New struc- tures and new machi- nery and equipment	
							Raw materials and con- tainers used					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Footwear, other wearing apparel and made-up textile goods												
1956	568	21,272	20,502	227,990	1,319,520	119,397.0	854,220.0	792,780.0	465,300.0	30,968.0	1,517.0	1,355.0
1957	562	21,660	20,775	224,780	1,284,150	114,523.0	846,290.0	767,710.0	487,860.0	29,816.0	2,946.0	2,513.0
1958	485	18,249	17,590	194,070	1,077,780	98,946.0	729,170.0	655,680.0	368,590.0	25,220.0	2,800.0	2,507.0
1959	416	18,193	17,634	208,230	1,478,090	130,809.0	908,080.0	835,120.0	577,200.0	37,733.0	7,363.0	6,937.0
1960	385	16,322	15,820	192,560	1,313,530	107,127.0	86,382.0	739,350.0	449,770.0	25,575.0	3,216.0	2,770.0
1962	373	16,328	15,812	196,500	1,432,710	114,543.0	93,359.0	768,140.0	499,120.0	31,500.0	6,380.0	5,865.0
1963	370	17,467	16,917	218,795	1,523,343	119,138.8	990,436	828,370.0	533,397.0	34,036.0	50,206	47,924
1964	298	18,738	18,271	248,603	1,926,559	113,394.9	921,688.0	765,232.0	570,971.0	32,972.2	44,881.1	34,402.2
1965	271	16,871	16,460	254,016	1,654,779	108,077.9	864,747.0	705,169.0	590,030.0	35,862.7	40,664.4	33,218.8
1966	244	14,850	14,454	262,129	1,428,838	109,753.0	828,605.0	677,382.0	600,233.0	31,861.7	39,220.0	35,061.1
1968	281	16,871	19,228	254,016	1,790,539	118,664.5	1,052,533.0	877,728.0	738,006.0	53,354.7	85,329.0	53,507.7
1969	246	20,662	20,216	399,302	1,789,237	122,983.7	1,060,792.0	862,834.0	728,445.0	55,095.6	99,067.7	61,330.0
1970	235	22,015	21,716	461,796	2,018,825	131,175.0	1,164,421.0	933,094.0	882,404.0	70,452.7	124,577.8	99,178.8
Wood and cork products, except furniture												
1956	174	16,093	15,999	285,350	1,255,760	103,175.0	727,910.0	535,770.0	527,850.0	44,009.0	66,380.0	52,160.0
1957	261	20,363	20,241	313,880	1,624,160	139,337.0	922,890.0	708,920.0	701,270.0	63,931.0	9,800.0	8,961.0
1958	221	21,937	21,840	346,210	1,644,280	125,383.0	783,070.0	609,170.0	659,780.0	77,429.0	10,645.0	8,296.0
1959	182	19,078	19,004	320,080	1,601,260	184,144.0	848,540.0	701,610.0	752,720.0	73,362.0	10,509.0	9,766.0
1960	180	17,531	17,466	304,010	1,678,890	144,874.0	97,206.0	762,310.0	703,360.0	83,565.0	10,061.0	9,435.0
1962	208	21,769	21,707	384,720	2,511,600	220,111.0	1,549,640.0	1,235,240.0	981,960.0	103,670.0	25,249.0	23,022.0
1963	221	24,464	24,396	449,627	3,015,541	279,712.9	1,811,517	1,491,437	1,270,374	113,668.2	24,777.6	23,053.1
1964	226	28,965	28,897	566,896	3,618,816	338,277.7	2,190,701.0	1,826,702.0	1,471,115.0	147,715.5	59,916.4	42,582.1
1965	238	30,501	30,419	649,187	3,521,615	303,429.6	2,072,649.0	1,678,808.0	1,448,966.0	159,434.9	33,353.8	30,286.6
1966	232	31,444	31,357	694,336	3,949,097	323,675.5	2,226,895.0	1,728,295.0	1,702,233.0	185,961.0	48,254.7	40,363.6
1968	256	35,927	35,814	871,253	5,332,209	473,818.6	3,036,337	2,249,733.0	2,296,572.0	251,364.0	199,400.0	177,075.0
1969	231	35,410	35,301	914,742	4,995,877	398,225.8	2,927,877.0	2,110,660.0	2,027,000.0	202,574.1	472,444.5	433,555.0
1970	217	35,326	35,230	984,629	6,286,726	487,624.3	3,789,974.0	2,509,094.0	2,496,752.0	267,062.9	66,710.6	57,572.3
Furniture and fixtures												
1956	53	2,686	2,643	44,640	1,697,340	1,599,200	918,600	809,900	778,700	378,200	11,810	875.0
1957	73	3,470	3,400	55,100	2,090,500	1,872,600	1,129,500	1,000,500	961,000	458,600	4,270	477.0
1958	64	3,101	3,056	44,980	1,960,900	1,690,700	1,089,400	86,560	871,500	638,100	31,200	489.0
1959	64	3,244	3,195	49,410	2,107,600	1,873,900	1,085,400	971,400	1,022,200	599,700	828.0	564.0
1960	60	3,030	2,992	48,630	2,189,000	1,973,000	1,161,900	1,002,100	1,027,100	612,200	842.0	507.0
1962	74	3,775	3,728	64,620	2,660,300	2,273,900	1,453,900	1,200,100	1,206,500	1,828,500	1,190.0	890.0
1963	78	4,960	4,899	77,392	3,669,480	290,281.0	1,966,690	1,658,890	1,702,790	2,431,120	2,572.2	1,855.1
1964	77	4,455	4,392	83,870	4,025,420	330,966	2,134,870	1,781,470	1,890,590	1,951,650	72,284.4	5,962.3
1965	79	5,249	5,183	86,844	3,708,310	310,457	1,973,010	1,678,480	1,735,340	2,904,749	1,247.9	1,073.0
1966	77	4,678	4,648	96,270	3,931,030	361,020	1,893,870	1,762,580	2,077,160	2,096,970	11,994.8	11,449.0
1968	91	5,526	5,457	122,018	4,768,545	441,343.4	2,546,684	2,345,546	2,221,170	2,661,370	11,042.2	10,124.4
1969	74	4,978	4,922	115,629	3,983,544	372,700.9	2,130,718	1,877,342	1,850,566	2,838,550	9,600.0	915.8
1970	74	4,553	4,506	107,538	4,332,880	412,088.9	2,248,290	1,988,130	2,084,549	2,514,310	7,301.1	720.2
Paper and paper products												
1956	35	2,592	2,575	44,820	3,976,800	3,698,100	2,327,700	1,969,300	1,651,100	1,572,200	34,140	8,278.0
1957	42	2,982	2,946	56,130	5,261,900	4,890,300	3,032,000	2,610,300	2,229,900	1,800,200	1,868.0	1,741.0
1958	41	2,820	2,806	67,730	6,159,400	5,895,400	3,323,400	2,891,800	2,836,000	2,035,600	13,217.0	11,919.0
1959	48	3,531	3,520	93,110	8,695,000	8,212,500	4,842,200	4,322,200	3,854,800	3,411,400	12,813.0	11,007.0
1960	57	4,498	4,487	115,550	11,385,200	10,760,100	6,833,500	6,110,100	4,557,700	6,349,100	19,933.0	17,510.0
1962	63	5,381	5,366	137,920	14,116,900	13,401,000	9,281,500	8,279,500	7,835,400	7,878,300	15,224.0	14,150.0
1963	68	6,125	6,106	165,491	16,803,360	15,552,220	10,702,820	9,299,520	6,098,540	11,929,350	96,335.5	85,184.4
1964	61	6,445	6,436	171,336	17,654,450	16,819,660	12,070,420	10,939,460	5,930,510	11,738,440	80,669.9	77,533.9
1965	59	6,111	6,104	170,133	19,073,840	18,134,370	12,323,350	11,301,570	6,750,340	12,386,260	15,887.9	15,730.4
1966	62	6,540	6,526	207,724	22,633,370	21,507,540	14,560,090	13,240,318	7,602,390	15,228,810	18,444.0	17,842.6
1968	68	7,151	7,125	246,780	30,771,380	29,447,810	19,029,450	17,667,540	11,689,350	16,659,360	108,307.0	91,233.9
1969	67	7,597	7,575	280,524	31,462,718	30,709,500	19,264,820	17,457,070	12,979,670	16,600,430	104,118.8	81,122.2
1970	64	7,862	7,844	351,301	46,719,320	42,863,600	29,971,830	27,471,830	16,747,490	18,015,850	96,377.8	96,108.1

See footnotes at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1/</sup> - Continued

(Value and cost in thousand pesos)												
Major industry group and year	Employment (Average for the year)				Value of gross output <sup>2/</sup>		Cost of Materials used, contract work and resale goods sold		Gross value added <sup>3/</sup>	Total book value of fixed assets, January 1	Capital expenditures during the year	
	Number of establishments	Total	Paid employees	Total payrolls for paid employees	Total	Shipments of manufactured products	Total	Raw materials and containers used (8)			New structures and new machinery and equipment	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Printed and published materials and allied products												
1956	83	7,608	7,575	19298.0	55458.0	51165.0	26786.0	23395.0	28672.0	26381.0	4396.0	4265.0
1957	96	8,549	8,498	23149.0	76240.0	70727.0	31107.0	27147.0	45133.0	28474.0	4474.0	3847.0
1958	93	8,427	8,363	22946.0	75132.0	61272.0	30482.0	28743.0	44650.0	32316.0	2677.0	2130.0
1959	89	8,540	8,514	26861.0	76912.0	70529.0	34752.0	33143.0	42160.0	28974.0	4769.0	3228.0
1960	93	9,123	9,099	24920.0	88220.0	75187.0	39919.0	37993.0	48311.0	32866.0	5970.0	5328.0
1962	116	9,713	9,655	28355.0	105940.0	90638.0	54460.0	50511.0	51480.0	47885.0	4903.0	3788.0
1963	134	10,630	10,569	32925.2	135500.1	108098.8	60846.9	55961.0	74653.2	57221.8	8383.0	7525.5
1964	128	11,353	11,298	35979.5	141158.8	122236.2	76815.0	69852.2	84343.8	71043.2	9963.0	8354.1
1965	125	11,185	11,139	38307.7	170987.3	119780.6	80050.8	72490.9	90936.5	70679.8	14137.9	13814.4
1966	126	11,211	11,165	38229.8	171174.5	145881.3	81881.2	74325.0	89293.3	81400.7	13887.2	9550.0
1968	138	11,795	11,724	46499.0	206698.3	175555.1	91472.6	81939.7	115225.7	88112.1	11528.5	9123.9
1969	127	11,405	11,347	48767.4	209901.9	156373.3	93749.5	86259.7	116152.4	76916.0	6303.3	6139.3
1970	134	11,631	11,596	52481.2	259605.2	194137.3	123394.0	112948.1	136211.2	81794.4	5930.1	5876.0
Leather and leather products except footwear and other wearing apparel												
1956	11	560	555	745.0	6012.0	6052.0	3534.0	3475.0	2478.0	1506.0	670.0	582.0
1957	14	801	791	1116.0	8092.0	7427.0	4756.0	4667.0	3336.0	2133.0	449.0	421.0
1958	14	770	762	1069.0	7115.0	7354.0	4445.0	4347.0	2670.0	2491.0	1321.0	560.0
1959	19	910	895	1317.0	9113.0	9023.0	6278.0	6145.0	2835.0	3140.0	773.0	716.0
1960	21	1,172	1,157	1936.0	14933.0	13761.0	9298.0	9152.0	5635.0	4725.0	704.0	650.0
1962	27	1,334	1,312	2362.0	15341.0	13806.0	9624.0	9412.0	5717.0	5432.0	570.0	451.0
1963	26	1,504	1,487	2387.0	27033.0	15282.8	20705.7	10094.0	6327.3	5529.6	606.7	586.7
1964	29	1,652	1,632	2819.5	18439.5	18290.3	11831.0	11412.5	6606.6	7361.9	694.0	551.7
1965	30	1,900	1,885	3561.2	21372.1	19827.2	13281.3	12801.4	8090.8	8816.9	1138.6	783.6
1966	30	1,959	1,943	3556.6	21518.5	20337.8	13519.6	12700.6	7998.9	9359.9	325.4	261.6
1968	31	1,976	1,954	4300.4	27475.3	24451.4	17136.2	16502.7	10339.1	10278.1	440.6	416.4
1969	32	2,117	2,084	4871.1	26819.0	26221.0	16631.5	15992.8	10187.5	13114.8	381.9	256.6
1970	27	1,400	1,378	3539.0	29652.0	29466.0	19652.8	18874.1	9999.2	11149.7	437.4	415.4
Rubber products												
1956	17	2,581	2,573	3792.0	18363.0	17400.0	9937.0	9426.0	8426.0	7605.0	488.0	427.0
1957	20	3,378	3,369	7980.0	60764.0	50196.0	31678.0	24497.0	29086.0	43996.0	20562.0	20362.0
1958	29	4,757	4,748	10288.0	83077.0	74357.0	36119.0	32801.0	46958.0	44933.0	4326.0	4096.0
1959	27	5,169	5,162	12388.0	101922.0	92496.0	43292.0	39148.0	58630.0	45092.0	3840.0	3710.0
1960	30	4,950	4,940	13878.0	116475.0	105337.0	60679.0	56471.0	55796.0	46330.0	7812.0	6522.0
1962	34	5,805	5,812	14468.0	153737.0	139180.0	77063.0	71389.0	76674.0	38148.0	12570.0	11688.0
1963	38	6,643	6,640	17239.8	166323.8	154455.5	89682.0	83981.9	76641.8	61311.3	7849.1	7271.4
1964	39	6,406	6,404	17961.3	185686.2	163066.1	94752.9	87676.7	90933.3	64234.3	9234.4	8821.0
1965	41	6,530	6,523	18812.5	174316.4	156392.8	92648.1	85034.1	81668.3	67154.8	9941.6	9747.3
1966	42	7,267	7,260	21050.8	208332.7	181524.2	107790.1	96876.7	101342.6	91014.0	13634.7	11477.9
1968	49	8,700	8,693	27060.3	257799.2	225323.6	127407.1	111138.0	125302.8	85303.8	14732.2	11164.5
1969	47	8,068	8,058	26755.0	25776.5	232563.9	132367.0	113982.4	124809.5	92423.1	10456.7	9516.2
1970	50	8,183	8,161	31183.0	369538.6	326613.9	183684.3	172179.2	185354.3	88679.4	10910.9	10583.9
Chemicals and chemical products												
1956	79	7,783	7,755	22823.0	237443.0	226726.0	147754.0	137994.0	89689.0	69763.0	11639.0	10978.0
1957	93	8,471	8,454	26345.0	278132.0	267500.0	184618.0	174092.0	93564.0	83245.0	16280.0	15382.0
1958	99	9,942	9,905	30938.0	340228.0	326997.0	223157.0	212633.0	117971.0	86285.0	24836.0	21778.0
1959	103	10,192	10,172	32225.0	386296.0	376684.0	249451.0	237367.0	136845.0	97210.0	10143.0	8602.0
1960	112	11,035	11,019	30666.0	404584.0	402028.0	264083.0	237399.0	160596.0	94565.0	17625.0	13202.0
1962	131	13,893	13,873	47994.0	597142.0	565502.0	401924.0	373847.0	195318.0	117602.0	28887.0	23964.0
1963	132	14,804	14,783	54316.3	738210.2	709024.2	512157.0	480785.9	226053.2	132864.7	27912.3	25949.0
1964	138	16,325	16,293	66269.6	909474.4	842975.0	623071.0	574324.4	284403.4	165000.2	35544.1	32787.8
1965	147	17,927	17,900	75271.9	985069.0	919459.0	676655.8	624964.8	30431.2	206314.8	50496.6	43732.7
1966	146	18,977	18,962	87612.6	1119377.7	1029340.6	75437.5	679889.3	365060.2	351529.0	93932.7	88935.4
1968	165	21,449	21,421	109989.8	1499208.8	1395515.9	991787.6	901841.9	507433.2	473027.9	53834.4	43611.8
1969	163	21,946	21,920	118123.2	1389143.7	1293569.5	868700.3	772263.9	520443.4	488153.9	33569.7	28834.3
1970	168	21,586	21,572	146897.7	2113668.9	1890082.2	1329739.1	1193050.6	783929.8	512910.0	70520.2	67489.3

See footnotes at end of table.

# MANUFACTURING STATISTICS

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Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1</sup> - Continued  
(Value and cost in thousand pesos)

Major industry group and year	Number of establishments	Employment (Average for the year)		Value of gross output <sup>2</sup>		Cost of Materials used, contract work and resale goods sold		Census value added	Total book value of fixed assets, January 1	Capital expenditures during the year		
		Total	Paid employees	Total payroll for paid employees	Total	Shipments of manufactured products	Total			Total	New structures and new machinery and equipment	
							Raw materials					and contract work used in tankers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Products of petroleum and coal												
1956	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1957	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1958	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1959	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1960	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1962	10	1,212	1,212	7835.0	392635.0	372685.0	231952.0	221377.0	160683.0	75903.0	101568.0	101212.0
1963	8	1,330	1,330	11155.7	506556.8	491379.8	310091.6	278772.2	196452.2	273653.5	5504.3	5504.3
1964	7	1,198	1,198	9793.0	461173.5	440164.8	350739.3	309722.2	110434.2	254500.0	4935.6	2152.9
1965	7	1,054	1,054	8731.0	469644.3	444443.6	350171.8	309914.7	119472.5	237903.9	7119.4	7106.8
1966	7	1,035	1,035	9813.0	504980.1	477187.1	382597.8	341824.6	122782.8	231361.8	20492.4	20492.4
1968	8	1,106	1,106	12038.1	765836.6	695547.8	545285.2	488730.7	220553.4	294524.5	20384.6	20384.6
1969	10	1,100	1,100	13118.4	928496.9	91063.9	617125.8	531597.1	311371.1	291836.1	11368.1	11368.1
1970	11	1,497	1,497	16897.5	1387964.2	1315884.7	924439.1	830477.4	463525.1	275537.1	173390.6	172570.2
Non-metallic mineral products, except products of petroleum and coal												
1956	55	5,104	5,077	11026.0	74845.0	71442.0	32664.0	20850.0	42181.0	51291.0	2362.0	2051.0
1957	54	5,786	5,759	13214.0	87070.0	72709.0	34469.0	18565.0	46238.0	61025.0	14802.0	14445.0
1958	63	6,122	6,084	13854.0	80747.0	66924.0	37411.0	23025.0	50032.0	64391.0	7803.0	736.0
1959	77	6,966	6,929	17389.0	101010.0	95163.0	42602.0	22592.0	58408.0	68793.0	12285.0	11234.0
1960	74	7,264	7,222	17587.0	104745.0	100778.0	42016.0	24181.0	62729.0	86072.0	2395.0	20159.0
1962	85	8,891	8,771	22371.0	150131.0	144332.0	66743.0	32565.0	99835.0	120073.0	14376.0	12773.0
1963	88	10,156	10,128	25781.0	179246.9	176788.1	68400.7	41537.7	110862.0	155059.7	3338.0	31566.7
1964	85	9,484	9,441	27033.6	211653.0	204931.4	80333.9	45449.4	131589.1	177453.9	91778.0	48704.4
1965	84	11,225	11,191	34983.8	247167.8	235035.3	97174.0	59012.4	149993.8	227985.5	31791.9	25368.3
1966	79	11,143	11,097	36522.0	275914.7	270195.8	115847.8	71559.8	164066.9	258254.5	78293.9	77087.4
1968	98	14,294	14,233	49522.6	382111.7	357394.6	159246.3	98229.9	222865.4	426317.3	109169.5	166573.3
1969	88	14,474	14,432	53387.1	404532.2	388816.2	178123.9	114371.1	226408.3	508134.5	57283.0	55990.2
1970	88	15,342	15,319	61481.0	436562.4	405205.0	200023.5	126214.9	236538.9	700317.2	157418.5	141551.0
Basic metal products												
1956	11	1,087	1,082	2357.0	14775.0	13946.0	6747.0	5120.0	8028.0	15939.0	247.0	247.0
1957	12	1,139	1,136	2263.0	21081.0	18714.0	14638.0	13096.0	6443.0	5094.0	275.0	274.0
1958	20	2,465	2,462	5052.0	37202.0	34958.0	18844.0	15488.0	18358.0	14498.0	3934.0	3052.0
1959	24	3,064	3,061	7455.0	54374.0	54158.0	28239.0	23304.0	26135.0	29047.0	4424.0	3793.0
1960	25	3,367	3,364	8800.0	56398.0	52164.0	30075.0	25634.0	26323.0	31088.0	2934.0	2828.0
1962	35	3,904	3,898	9499.0	73151.0	69523.0	43713.0	39435.0	29438.0	34957.0	6818.0	6764.0
1963	45	4,953	4,942	12957.4	97159.0	97773.3	57154.4	51369.1	40003.6	48929.5	23040.0	22891.1
1964	42	4,766	4,756	12456.9	13938.5	13098.2	93483.8	86908.6	45654.7	98160.0	409.0	3891.6
1965	40	4,778	4,768	12851.0	165365.4	155955.5	108797.5	103262.2	56567.9	63951.1	29950.0	15438.0
1966	49	5,047	5,038	14625.2	214200.5	200784.6	148291.0	141150.1	65995.5	89276.7	26949.8	27708.0
1968	59	7,466	7,451	25997.0	341491.9	331722.9	234322.3	229646.6	108096.6	128323.0	12528.1	12252.1
1969	55	9,100	9,088	38275.4	507139.5	471169.2	376486.4	357591.4	130653.1	133852.0	17390.4	15955.0
1970	58	10,659	10,644	48700.2	900451.8	739226.6	648899.0	610780.6	251552.8	697368.7	273717.1	271529.6
Metal products, except machinery and transport equipment												
1956	70	6,021	5,985	13528.0	75365.0	72104.0	43314.0	39900.0	32051.0	26813.0	4424.0	4287.0
1957	82	7,469	7,432	17362.0	94922.0	85533.0	55383.0	49164.0	39539.0	30176.0	5237.0	4539.0
1958	92	8,551	8,517	19472.0	131769.0	120829.0	66786.0	63114.0	64983.0	31806.0	6254.0	5500.0
1959	99	9,296	9,268	22644.0	155022.0	136499.0	85889.0	81570.0	87133.0	33502.0	7002.0	6190.0
1960	115	11,581	11,557	28408.0	266335.0	27122.0	118696.0	114401.0	87639.0	47031.0	13115.0	11868.0
1962	122	12,636	12,607	30866.0	263452.0	222891.0	169159.0	157255.0	94293.0	81828.0	25060.0	23870.0
1963	127	13,968	13,941	34619.1	299540.4	271089.3	196612.9	183252.7	102927.5	88110.9	15490.5	14753.9
1964	132	14,799	14,728	39470.7	338975.6	298035.5	228232.6	210234.3	110743.0	98097.4	13036.6	12073.0
1965	136	16,241	16,216	49103.0	351377.7	305840.8	228985.0	213129.3	125052.7	101424.2	10594.9	10361.9
1966	125	16,118	16,099	49238.0	410040.2	348664.1	266305.0	247492.9	143734.4	93862.1	13163.4	12671.0
1968	159	20,309	20,267	71328.1	472867.5	369540.0	287529.4	254114.3	185338.1	12675.0	15881.5	15133.3
1969	155	20,169	20,134	68711.4	485304.0	383654.5	276731.4	247203.9	208572.6	124159.4	17986.3	15501.1
1970	151	15,165	15,139	45325.5	454641.0	424421.3	315226.1	290352.2	139414.9	109103.6	14176.8	13844.1

See footnotes at end of table.

Table XVI.2—GENERAL STATISTICS FOR MANUFACTURING, BY MAJOR INDUSTRY GROUP: 1956 TO 1970<sup>1/</sup> - Continued

(Value and cost in thousand pesos)

Major industry group and year	number of establishments	Employment (Average for the year)		Total pay-rolls paid employees	Value of gross output <sup>2/</sup>		Cost of Materials used, contract work and resale goods sold		Census value added	Total book value of fixed assets, January 1	Capital expenditures during the year	
		Total	Paid employees		Total	Shipments of manufactured products	Total	Raw materials and containers used			Total	New structures and new machinery and equipment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Machinery, except electrical machinery</b>												
1956	38	3,409	3,400	6477.0	2921.0	15047.0	12381.0	10400.0	12540.0	16625.0	4187.0	2745.0
1957	47	4,478	4,458	10352.0	46185.0	21292.0	21764.0	12203.0	24421.0	16419.0	2116.0	1605.0
1958	36	4,145	4,133	10906.0	54669.0	29298.0	27729.0	13242.0	26940.0	17359.0	2872.0	2630.0
1959	33	1,826	1,811	4622.0	22536.0	9456.0	8657.0	4268.0	13879.0	7029.0	854.0	596.0
1960	42	3,396	3,385	9046.0	41872.0	25686.0	11070.0	6434.0	30802.0	16784.0	1948.0	1858.0
1962	42	3,333	3,314	9348.0	51861.0	36022.0	16289.0	8056.0	35562.0	16643.0	3163.0	2863.0
1963	42	2,967	2,949	9203.2	42581.3	17453.6	20251.7	8537.2	22329.6	13911.5	872.2	842.8
1964	50	2,864	2,837	7094.0	28938.1	17261.4	15025.8	10236.0	13912.3	15991.3	1630.2	1018.2
1965	48	2,816	2,795	7560.0	29487.6	14993.4	13355.2	8030.6	16132.4	17322.9	2045.2	1574.7
1966	47	2,925	2,898	7819.4	30476.5	14102.4	12041.5	8013.6	16435.0	17640.1	3291.9	1602.7
1968	59	3,377	3,347	9962.4	47569.5	22276.5	21851.4	13060.3	23718.1	32440.9	2651.6	2632.8
1969	65	3,650	3,625	11392.8	53016.4	31163.8	24122.8	28893.6	27051.7	2185.9	2051.7	
1970	62	4,102	4,085	14830.8	82243.1	56351.4	41968.0	33234.4	40275.1	41612.1	6481.0	5851.2
<b>Electrical machinery apparatus, appliances and supplies</b>												
1956	19	1,115	1,111	2331.0	16074.0	14790.0	8469.0	7692.0	7605.0	5325.0	2364.0	2055.0
1957	27	1,826	1,819	4074.0	24366.0	20666.0	11950.0	11166.0	12416.0	7445.0	2545.0	1968.0
1958	28	2,417	2,407	5393.0	33206.0	31350.0	15296.0	14487.0	17910.0	11606.0	2872.0	2686.0
1959	42	5,028	5,012	10907.0	86199.0	72872.0	39581.0	32402.0	46618.0	21763.0	6518.0	5061.0
1960	49	6,883	6,870	15195.0	101548.0	82159.0	49768.0	44070.0	51780.0	28720.0	9484.0	8673.0
1962	72	10,602	10,582	24293.0	197072.0	144165.0	106831.0	78750.0	90241.0	51170.0	15023.0	14671.0
1963	74	10,668	10,648	26705.0	261282.7	173696.2	141532.3	100185.3	119750.4	64486.2	13355.8	12395.7
1964	74	12,797	12,780	32528.5	290942.5	199242.8	165684.5	121413.1	125258.0	68867.8	22645.2	22416.7
1965	82	13,228	13,154	35644.6	280067.3	203150.1	165642.1	118598.4	114525.2	87175.0	9998.7	8980.7
1966	73	12,527	12,519	38851.3	298430.3	212999.9	174318.0	114695.9	124112.3	95493.8	10026.5	8948.0
1968	94	11,894	11,879	39081.1	334168.3	262803.3	192210.0	143992.8	141958.3	98493.5	10440.9	8866.6
1969	82	11,213	11,200	38955.4	351422.3	296615.1	200040.2	161057.9	151482.1	107620.8	11575.6	10055.4
1970	79	11,734	11,721	47884.1	496949.0	391697.1	278603.8	219980.9	218345.2	95928.1	48308.2	36362.3
<b>Transport equipment</b>												
1956	42	4,935	4,918	12917.0	83624.0	51888.0	49740.0	41431.0	33844.0	33325.0	1779.0	1390.0
1957	48	5,169	5,143	13441.0	85170.0	59091.0	55522.0	43877.0	29948.0	33535.0	3621.0	2227.0
1958	52	5,544	5,515	14699.0	90128.0	55375.0	56765.0	42493.0	33363.0	33994.0	3431.0	2726.0
1959	59	6,491	6,462	16980.0	102547.0	74278.0	60250.0	47243.0	42297.0	40425.0	4351.0	3354.0
1960	55	5,650	5,626	16424.0	123724.0	93393.0	75430.0	67104.0	48294.0	36735.0	5877.0	5142.0
1962	91	8,707	8,682	23942.0	262028.0	173611.0	171981.0	131170.0	90047.0	57907.0	5668.0	5086.0
1963	95	9,525	9,494	28631.7	381393.6	246841.6	239139.0	182563.3	142254.6	69914.0	6551.5	5876.8
1964	114	10,822	10,777	31745.5	423560.6	323178.8	284391.3	243512.7	139169.3	78016.7	14287.5	12123.4
1965	111	11,103	11,058	35173.3	381559.1	278281.8	281682.5	216031.4	99876.6	75186.3	13891.3	8392.5
1966	107	11,797	11,722	37467.8	401817.8	291047.8	291047.8	238835.1	106632.7	91915.8	9991.1	8483.1
1968	126	11,615	11,567	44318.5	557518.9	411852.6	407408.2	347948.9	150110.7	91529.7	24113.1	20864.9
1969	102	11,932	11,885	44038.6	525825.9	407059.4	384931.2	306694.2	140894.7	113951.3	18988.8	16130.5
1970	92	9,522	9,500	42360	585133.4	387173.0	386447.7	295797.2	198985.7	138994.9	7676.5	7316.7
<b>Miscellaneous manufactures</b>												
1956	58	3,373	3,328	8513.0	143385.0	137342.0	52503.0	48602.0	90882.0	61100.0	2861.0	2441.0
1957	69	3,365	3,441	8024.0	164434.0	156963.0	63055.0	57536.0	101139.0	55344.0	4525.0	3838.0
1958	49	3,760	3,749	8294.0	185088.0	178722.0	71944.0	68281.0	113144.0	53544.0	3111.0	2966.0
1959	59	3,541	3,526	9551.0	220813.0	202896.0	83965.0	73692.0	136848.0	54086.0	4977.0	4410.0
1960	64	3,895	3,885	10328.0	220736.0	210414.0	89988.0	85155.0	130748.0	55814.0	4295.0	4142.0
1962	79	3,909	3,901	7104.0	36451.0	33356.0	18688.9	16778.0	17763.0	21769.0	4727.0	4724.0
1963	83	4,605	4,593	8793.4	41238.9	38128.5	21336.6	19798.0	19802.3	27225.4	2146.9	1967.2
1964	87	4,985	4,970	9185.4	44212.2	38132.8	20261.2	18401.8	23951.0	22716.5	4424.3	3310.8
1965	84	4,681	4,664	10099.7	49827.9	43416.7	22810.6	21216.8	27017.3	29074.7	4458.3	2949.8
1966	75	4,436	4,419	10903.3	57732.3	58449.0	30776.2	26758.5	26956.1	30675.7	5445.6	4993.3
1968	96	5,378	5,340	13006.9	81210.2	74599.0	43084.8	39500.3	38153.0	35909.9	4938.9	4376.1
1969	92	5,984	5,949	15286.1	115748.7	109430.9	68739.8	63877.4	47008.9	37472.9	11256.5	9011.9
1970	98	7,817	7,778	22629.0	189253.6	172509.8	115640.2	107346.9	73613.4	63135.2	14031.0	12652.0

<sup>1/</sup> No survey was made for 1961 and 1967; 1970 data are preliminary.<sup>2/</sup> Total value of shipments of manufactured products adjusted for change in inventories of finished products and working process, receipts for contract and repair work done for others, sales of products bought and resold without further manufacture and other operating receipts.<sup>3/</sup> Value of gross output less the total cost of raw materials, containers and fuels consumed, purchased electric energy, contract work done by others, and resale goods sold.<sup>4/</sup> Figure under the heading "Establishments with 5 or more workers" include data for the "small" as well as for the "large" establishments.<sup>5/</sup> Excludes resales.<sup>6/</sup> Included in major group 39 (miscellaneous manufactures).

- suppressed.

Table XVI.3 shows the percentage contribution of the different major industry groups to the number of establishments, employment, value of gross output and the census value added for 1970.

Table XVI.3 - PERCENTAGE DISTRIBUTION OF THE NUMBER OF ESTABLISHMENTS, EMPLOYMENT, GROSS OUTPUT AND CENSUS VALUE ADDED OF ESTABLISHMENTS WITH FIVE OR MORE WORKERS BY INDUSTRY GROUP: 1970

Industry Group	Percentage Distribution			
	Number of Establishments	Employment	Value of Gross Output	Census Value Added
Total	100.00	100.00	100.00	100.00
20 - Food, manufactured	29.47	21.06	24.87	25.20
21 - Beverages	0.96	3.76	5.33	7.95
22 - Tobacco products	0.65	5.60	5.51	6.66
23 - Textiles	1.87	11.63	6.47	5.24
24 - Footwear, other wearing apparel and made-up textile goods	25.50	9.95	1.92	1.96
25 - Wood and cork products, except furniture	5.13	9.62	4.14	4.13
26 - Furniture and fixtures	2.88	1.70	0.36	0.42
27 - Paper and paper products	1.50	2.21	3.30	3.17
28 - Printing, publishing and allied industries	4.90	3.97	1.93	2.53
29 - Leather and leather products, except footwear and other wearing apparel	0.65	0.44	0.21	0.17
30 - Rubber products	0.80	2.13	2.53	3.02
31 - Chemicals and chemical products	2.67	5.64	13.66	12.79
32 - Products of petroleum and coal	0.13	0.38	8.74	7.30
33 - Non-metallic mineral products, except products of petroleum and coal	4.46	4.61	2.95	3.91
34 - Basic metal products	0.77	2.71	5.70	3.99
35 - Metal products, except machinery and transport equipment	4.32	4.01	3.18	2.45
36 - Machinery, except electrical machinery	3.18	1.66	0.71	0.88
37 - Electrical machinery, apparatus, appliances and supplies	1.94	3.34	3.26	3.56
38 - Transport equipment	5.84	3.36	3.96	3.42
39 - Miscellaneous manufactures	2.38	2.22	1.28	1.25

Source: Bureau of the Census and Statistics, Central Research Division.

The brisk development of small-scale or "light" industries in the country was somehow the net effect of the efforts to live up to the gigantic role assigned to such industries: that of providing a stable economic base to prevent the country from being a total industrial slump. Table XVI.4 reflects a steady uptrend indicating a general increase in all manufacturing activities. Although such trend did not hold true to "light" industries in terms of the number of establishments, since it showed a decreasing fluctuations at intervals, this did not in a way hinder the expansion of manufacturing activities. The number of establishments employing 5 or more workers under "light industries" increased by no less than 28.6 per cent from a level of 6,137 in 1956 to 7,891 in 1970. On the basis of employment and gross output, small-scale or "light industries" expanded rapidly throughout the fifteen-year period.

Similarly, "heavy industries" manifested significant gains and favorable trends during the same period. The number of establishments employing 5 or more workers increased by 143.2 percent over the 1956 level. Similarly, those employing 20 or more workers grew by 121.7 per cent from a total of 350 in 1956 to 776 in 1970. Evidently, the move toward a capital-intensive economy gained cognizance through the years.

Table XVI.4—GENERAL STATISTICS FOR MANUFACTURING, BY TYPE OF INDUSTRY: 1956-1970<sup>1/</sup>

Item and year	(Value and cost in thousand pesos)					
	Establishments with 5 or more workers			Establishments with 20 or more workers		
	All manufacturing industries	Heavy manufacturing industries <sup>2/</sup>	Light manufacturing industries <sup>3/</sup>	All manufacturing industries	Heavy manufacturing industries <sup>2/</sup>	Light manufacturing industries <sup>3/</sup>
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Number of establishments</b>						
1956	7,208	1,071	6,137	1,833	350	1,483
1957	7,421	1,105	6,316	2,075	488	1,587
1958	7,411	1,240	6,171	1,894	432	1,462
1959	7,386	1,275	6,111	1,858	488	1,370
1960	7,421	1,275	5,946	1,884	531	1,353
1962	8,469	1,500	6,969	2,180	649	1,531
1963	8,833	1,568	7,265	2,219	681	1,538
1964	8,344	1,697	6,647	2,196	703	1,493
1965	7,925	1,696	6,229	2,152	714	1,438
1966	8,036	1,705	6,331	2,275	695	1,580
1968	10,058	2,437	7,621	2,385	836	1,549
1969	10,514	2,488	8,026	2,172	786	1,386
1970	10,456	2,605	7,851	2,156	776	1,380
<b>Total employment (Average for the year)</b>						
1956	205,899	40,037	165,772	150,878	32,538	118,340
1957	223,551	45,765	177,786	172,708	41,752	130,956
1958	228,307	50,975	177,332	178,328	42,478	135,850
1959	238,666	57,755	180,911	185,530	46,934	138,596
1960	243,731	62,586	181,145	190,994	54,327	136,667
1962	273,473	78,536	201,937	230,469	68,469	162,000
1963	320,383	83,146	237,237	250,128	76,966	173,162
1964	316,415	90,304	226,111	266,241	79,960	186,281
1965	323,770	94,344	229,426	273,459	84,483	188,976
1966	327,354	95,759	231,595	275,979	86,109	189,870
1968	394,336	114,025	280,311	325,131	98,661	226,470
1969	403,390	117,531	285,859	333,266	102,087	231,181
1970	403,730	112,728	291,002	333,138	95,469	237,669
<b>Paid employees (Average for the year)</b>						
1956	196,050	38,803	157,247	149,333	32,395	116,938
1957	213,691	44,630	169,061	170,899	37,626	133,273
1958	213,332	49,673	163,659	176,914	42,301	134,613
1959	229,104	56,529	172,575	184,376	46,775	137,601
1960	235,005	61,472	173,533	197,980	54,183	143,797
1962	266,278	75,274	191,004	229,179	68,305	160,874
1963	271,067	81,755	209,312	248,733	74,321	174,412
1964	305,192	83,393	221,799	264,728	79,746	184,982
1965	313,198	93,033	220,165	272,115	84,240	187,875
1966	316,349	93,957	222,392	274,538	85,396	189,142
1968	381,354	111,432	269,922	323,666	98,396	225,270
1969	393,387	115,013	278,374	327,365	101,868	225,497
1970	393,937	110,352	283,585	332,135	95,321	236,814
<b>Payrolls for paid employees</b>						
1956	331,113	83,196	247,917	278,551	78,039	200,512
1957	369,341	105,538	263,803	322,311	94,986	227,325
1958	397,526	121,418	276,108	347,454	109,657	237,797
1959	443,580	142,303	301,277	386,433	124,092	262,341
1960	471,074	156,537	314,537	422,737	145,930	276,807
1962	542,798	199,847	342,951	506,795	189,880	316,915
1963	627,752	230,331	397,421	574,247	219,029	355,218
1964	696,011	258,640	437,371	643,338	243,512	399,826
1965	765,342	292,438	472,904	709,256	276,376	432,880
1966	847,268	319,170	528,098	787,830	302,822	485,008
1968	1,076,077	420,493	655,584	983,517	387,680	595,837
1969	1,153,389	450,129	703,260	1,067,151	422,616	644,535
1970	1,296,457	495,000	801,457	1,193,208	459,387	733,821

See footnotes at end of table.

Table XVI.—GENERAL STATISTICS FOR MANUFACTURING, BY TYPE OF INDUSTRY: 1956-1970<sup>1</sup> - Continued

(Value and cost in thousand pesos)

Item and year	Establishments with 5 or more workers			Establishments with 20 or more workers		
	All manufacturing industries	Heavy manufacturing industries	Light manufacturing industries	All manufacturing industries	Heavy manufacturing industries	Light manufacturing industries
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Value of gross output<sup>2</sup></b>						
1956	2,345,480	758,625	1,586,855	1,994,238	682,549	1,311,689
1957	2,698,664	839,893	1,783,856	2,391,523	792,491	1,599,032
1958	3,099,374	1,019,216	2,039,683	2,757,282	992,025	1,765,257
1959	3,490,193	1,277,108	2,199,216	3,139,760	1,178,203	1,961,557
1960	3,934,272	1,443,641	2,490,631	3,547,648	1,352,807	2,194,841
1962	5,398,489	2,193,417	3,208,472	5,104,236	2,128,641	2,975,595
1963	6,708,369	2,733,252	3,955,117	6,335,264	2,673,965	3,661,299
1964	7,423,361	3,307,044	4,136,317	6,961,325	2,973,741	3,987,584
1965	7,466,978	3,197,920	4,269,058	7,020,363	3,102,337	3,918,026
1966	8,205,938	3,636,479	4,569,459	7,713,357	3,476,791	4,236,566
1968	11,281,431	4,964,304	6,317,127	10,553,581	4,707,975	5,845,606
1969	11,906,215	5,666,274	6,839,941	11,179,211	4,853,474	6,325,737
1970	15,887,109	7,221,264	8,665,845	15,074,892	6,924,807	8,150,085
<b>Value of shipments of manufactured products</b>						
1956	2,130,246	671,474	1,458,772	1,841,755	617,662	1,224,093
1957	2,452,952	755,183	1,697,769	2,194,551	887,683	1,306,868
1958	2,806,830	941,322	1,865,508	2,551,069	899,456	1,651,613
1959	3,194,360	1,124,899	2,069,461	2,911,802	1,074,587	1,837,215
1960	3,560,719	1,286,230	2,274,489	3,244,132	1,233,441	2,010,691
1962	4,831,152	1,912,844	2,918,308	4,635,234	1,863,132	2,772,102
1963	6,027,874	2,406,457	3,621,417	5,723,636	2,441,568	3,282,068
1964	6,702,458	2,711,984	3,990,474	6,314,844	2,624,984	3,689,860
1965	6,989,730	2,815,906	4,173,824	6,337,371	2,739,003	3,598,368
1966	7,477,180	3,197,961	4,280,119	7,073,941	3,076,518	3,997,423
1968	10,100,960	4,340,863	5,760,097	9,509,590	4,141,104	5,368,486
1969	10,758,079	4,566,930	6,211,149	10,196,697	4,386,854	5,809,843
1970	14,112,622	6,285,096	7,827,526	13,464,835	6,036,677	7,428,158
<b>Cost of materials used, contract work and resale goods, total</b>						
1956	1,116,657	421,321	695,336	1,074,573	366,587	707,986
1957	1,502,145	475,851	979,916	1,301,799	457,429	844,370
1958	1,673,444	556,404	1,116,991	1,452,484	520,015	932,469
1959	1,879,448	685,556	1,193,892	1,666,235	633,189	1,033,046
1960	2,171,415	791,833	1,379,582	1,915,937	732,513	1,183,424
1962	3,199,096	1,334,062	1,864,944	3,004,670	1,294,860	1,709,810
1963	3,970,470	1,706,449	2,264,021	3,724,926	1,652,369	2,072,557
1964	4,528,328	2,026,063	2,502,265	4,228,083	1,961,672	2,266,411
1965	4,593,090	2,398,455	2,194,635	4,314,296	2,044,799	2,269,497
1966	5,063,027	2,402,953	2,660,074	4,742,812	2,296,034	2,446,778
1968	6,790,981	3,189,285	3,601,696	6,316,817	3,029,035	3,287,782
1969	7,062,402	3,173,785	3,888,617	6,584,499	3,053,021	3,531,478
1970	9,538,862	4,588,786	4,950,076	9,027,742	4,424,765	4,602,977
<b>Cost of raw materials and containers used</b>						
1956	1,146,578	362,788	783,690	950,568	322,756	627,812
1957	1,311,343	417,316	894,027	1,145,430	395,116	750,314
1958	1,452,345	499,549	952,796	1,292,725	472,320	820,405
1959	1,672,615	590,489	1,082,126	1,497,967	555,543	942,424
1960	1,912,964	687,401	1,225,563	1,696,737	651,361	1,045,376
1962	2,851,519	1,162,413	1,689,106	2,683,289	1,125,250	1,558,039
1963	3,506,875	1,468,648	2,038,227	3,304,835	1,419,998	1,884,837
1964	4,016,834	1,771,578	2,245,256	3,769,412	1,711,856	2,057,556
1965	4,060,318	1,812,687	2,247,631	3,788,984	1,765,960	2,023,024
1966	4,472,018	2,054,358	2,417,660	4,214,306	1,975,965	2,238,341
1968	5,981,027	2,772,143	3,208,884	5,580,919	2,644,958	2,935,961
1969	6,216,860	2,746,876	3,469,984	5,827,907	2,646,125	3,181,782
1970	8,356,041	4,025,140	4,330,901	7,921,360	3,874,606	4,046,754

See footnotes at end of table.



Table XVI.4—GENERAL STATISTICS FOR MANUFACTURING, BY TYPE OF INDUSTRY: 1936 - 1970<sup>1/</sup> - Continued

(Value and cost in thousand pesos)

Item and year	Establishments with 5 or more workers			Establishments with 20 or more workers		
	All manufacturing industries	Heavy manufacturing industries <sup>2/</sup>	Light manufacturing industries <sup>3/</sup>	All manufacturing industries	Heavy manufacturing industries <sup>2/</sup>	Light manufacturing industries <sup>3/</sup>
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Census value added<sup>4/</sup></b>						
1936	1,028,823	337,304	691,519	919,665	315,962	603,703
1937	1,196,519	361,790	806,192	1,089,724	356,977	732,747
1938	1,425,930	460,560	978,244	1,304,798	452,010	852,788
1939	1,610,745	589,507	1,018,693	1,473,525	542,862	930,663
1940	1,762,857	651,758	1,111,099	1,631,711	620,294	1,011,417
1941	2,109,883	856,355	1,343,528	2,099,566	833,751	1,265,785
1942	2,737,899	1,046,803	1,691,096	2,610,338	1,021,596	1,588,742
1943	2,894,533	1,060,981	1,833,552	2,733,242	1,017,069	1,716,173
1944	2,873,388	1,099,666	1,774,422	2,706,167	1,057,538	1,648,629
1945	3,142,912	1,233,526	1,909,386	2,970,544	1,180,757	1,789,787
1946	4,490,450	1,775,019	2,715,431	4,336,764	1,672,940	2,663,824
1947	4,843,813	1,892,489	2,951,324	4,694,712	1,800,453	2,894,259
1948	6,348,247	2,632,479	3,715,768	6,047,150	2,500,042	3,547,108
<b>Total book value of fixed assets, January 1</b>						
1936	834,334	300,709	533,675	737,533	285,366	452,167
1937	925,136	293,358	626,472	842,437	297,166	545,271
1938	1,058,603	340,303	718,300	960,313	321,467	638,846
1939	1,124,932	423,559	711,423	1,011,853	371,049	640,804
1940	1,263,051	455,477	807,574	1,132,110	442,949	689,161
1941	1,741,549	651,922	1,089,627	1,631,877	634,856	997,024
1942	2,252,096	994,435	1,260,561	2,144,404	966,226	1,178,178
1943	2,571,216	1,112,653	1,458,563	2,419,041	1,073,472	1,345,569
1944	2,936,210	1,196,938	1,739,272	2,747,643	1,140,155	1,607,488
1945	3,390,115	1,435,798	1,954,407	3,203,928	1,435,826	1,768,102
1946	4,353,031	1,964,114	2,388,917	4,177,944	1,833,923	2,344,021
1947	4,521,297	2,294,560	2,426,728	4,336,599	1,953,300	2,383,299
1948	6,640,403	2,351,540	3,788,863	6,326,542	2,751,539	3,575,003
<b>Capital expenditures during the year, new and used fixed assets, total</b>						
1936	170,434	32,309	68,365	92,657	31,066	61,591
1937	196,194	53,771	122,423	143,443	22,371	121,072
1938	195,830	67,130	112,830	170,276	65,749	104,527
1939	175,049	63,714	111,735	164,714	60,617	104,097
1940	256,140	101,434	156,906	246,542	97,241	149,301
1941	455,216	217,077	237,139	424,672	216,133	208,539
1942	540,811	259,713	281,168	522,344	259,573	262,771
1943	474,433	185,079	289,434	420,176	156,075	264,101
1944	474,542	177,094	276,763	428,734	171,737	256,997
1945	611,659	277,312	324,947	537,693	273,035	264,658
1946	677,141	301,135	363,306	611,694	295,834	315,860
1947	750,114	331,745	418,369	735,439	314,405	421,034
1948	1,340,772	313,277	521,295	1,307,662	303,126	1,004,536
<b>Expenditures for new structures and new machinery and equipment, total</b>						
1936	91,233	23,315	62,018	84,934	27,587	57,397
1937	144,542	43,134	101,408	132,780	43,103	89,677
1938	159,543	59,547	99,996	153,655	58,607	95,048
1939	151,424	52,466	98,958	143,296	52,034	91,262
1940	231,322	87,453	143,869	223,350	83,620	139,730
1941	399,236	206,975	192,261	390,329	205,353	184,976
1942	314,573	130,753	183,820	302,445	123,302	179,143
1943	373,524	144,379	228,955	366,753	142,488	224,265
1944	393,406	140,406	253,000	378,264	136,286	241,978
1945	562,232	262,017	300,075	551,194	259,771	291,423
1946	585,147	275,032	310,115	536,031	239,477	296,554
1947	770,291	465,224	305,067	757,228	460,953	296,275
1948	1,272,638	489,959	782,679	1,246,617	772,426	474,191

<sup>1/</sup> No surveys were made for 1961 and 1967; 1969 and 1970 data are preliminary.<sup>2/</sup> Heavy manufacturing industries include the following major groups: 27-paper and paper products; 31-chemicals and chemical products; 32-products of petroleum and coal; 33-non-metallic mineral products, except products of petroleum and coal; 34-basic metal products; 35-metal products, except machinery and transport equipment; 36-machinery except electrical machinery; 37-electrical machinery, apparatus, appliances and supplies; and 38-transport equipment.<sup>3/</sup> Light manufacturing industries include the following major groups: 20-food, manufactured; 21-beverages; 22-tobacco products; 23-textiles; 24-footwear, other wearing apparel and made-up textile goods; 25-wood and cork products, except furniture; 26-furniture and fixtures; 28-printed and published materials and allied products; 29-leather and leather products; except footwear and other wearing apparel; 30-rubber products; and 39-miscellaneous manufactures.<sup>4/</sup> Total value of shipments of manufacturing products adjusted for change in inventories of finished products and work-in-process, receipts for contracts and remail work done for others, sales of products bought and resold without further manufacture and other operating receipts.<sup>5/</sup> Value of gross output less the total cost of raw materials, containers and fuels consumed, purchased electric energy, contract work done by others and resale goods sold.<sup>6/</sup> Excludes resales.

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division, Annual Survey of Manufactures.

### Volume of Manufacturing Production

In general, the volume of manufactured products is expected to increase more rapidly as production has to catch up with the growth in Philippine population. However, the pace is much too slow considering the present problem of underproduction to cope with the rapid population increase.

The production index of the manufacturing sector rose from 56.6 to 256.9 or about 4.5 times between 1960 and 1970. In terms of annual growth rate, this is equivalent to about 7 percent. Comparatively speaking, the volume index of manufactures was only 0.2 percent higher than that of 1969 (256.3). The slim upward rise in the output of manufactured products was due to the very slight increase in non-durable manufactures (1.9 percent, the lowest so far realized since 1956) and to a rather significant decline in durable production (6.2 percent) from that of the previous year's (1969) level. This slackened rise in manufacturing output may be attributed to the stringent monetary policies instituted in the early 1960's.

It may be observed from Tables XVI.5. and XVI.6 that the progress in durable and non-durable manufactures was most impressive during the early part of the period from 1956-1970. However, this trend reversed to a downward trend in the early 1960's. From then on, fluctuations in the growth trend was noticeable.

In the non-durable goods category, the downward in five commodity groups (miscellaneous manufactures, paper products, tobacco products, food products and textiles) somehow pulled down the overall growth of the non-durable manufactures despite the acceleration of growth in other commodity groups.

With the rising costs of production, credit restrictions, keener competition, consumer resistance and other market uncertainties, most durable goods production groups failed to increase their output marking a sharp decline in the over-all production of durable goods. Furthermore, the decrease in the rate of growth of the whole manufacturing sector was the net effect of the shifting composition of industrial output brought about by the "floating" exchange rate system which discouraged import dependent industries from further expansions.

Table XVI.5- INDEX OF THE PHYSICAL VOLUME OF MANUFACTURING PRODUCTION: 1956 - 1970

	(1955 = 100)														
ITEM	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
MANUFACTURES	115.7	125.0	134.8	145.8	153.5	160.5	169.7	180.5	195.5	200.9	218.6	226.6	247.7	256.3	256.9
Non-durable manufactures	114.0	122.6	133.7	144.7	152.0	156.4	165.6	174.9	186.8	199.3	211.6	217.7	237.9	246.0	250.7
Food products	119.9	126.4	121.2	139.2	148.3	157.9	172.4	177.4	184.9	201.1	209.7	224.3	227.1	236.1	229.3
Beverages	118.5	117.0	124.3	137.4	152.5	157.5	177.4	205.0	217.9	226.6	249.4	215.2	323.3	340.2	361.3
Tobacco products	89.7	102.9	116.1	118.2	119.9	117.8	123.5	120.9	146.2	159.6	187.1	181.1	210.3	193.3	184.5
Textiles	132.7	167.1	207.7	254.2	278.3	282.4	296.2	321.7	338.0	328.0	328.6	344.0	332.4	332.6	327.1
Footwear & wearing apparel	69.0	54.9	67.6	58.1	52.6	47.1	50.4	51.9	49.5	51.0	52.0	51.2	50.9	49.3	63.8
Paper products	118.3	121.6	136.7	152.5	172.4	183.4	211.0	250.7	254.1	254.4	263.7	269.2	227.3	226.4	209.7
Printing, publishing and allied industries	109.0	109.5	121.8	130.8	127.9	116.6	103.6	83.4	77.7	79.9	80.6	78.8	72.3	78.5	94.7
Leather products except footwear	141.5	223.6	177.0	245.5	162.1	158.7	154.5	159.0	158.9	147.2	131.5	127.9	122.9	145.1	149.7
Rubber products	110.2	160.8	166.3	245.6	255.6	254.1	222.3	229.5	254.6	268.5	265.2	323.6	392.0	407.5	413.2
Chemical & chemical products	124.2	127.3	134.3	135.4	135.7	144.3	155.4	167.9	173.8	187.9	196.1	199.4	197.0	207.9	225.7
Miscellaneous Petroleum and coal products	130.7	140.0	170.3	172.5	182.3	184.8	175.8	173.0	181.8	161.0	208.4	231.5	282.7	328.4	342.1
Miscellaneous non-durable manufactures	91.1	101.5	105.9	119.1	120.1	129.1	133.4	75.6	104.1	84.0	102.2	103.6	117.4	114.8	99.2
Durable manufactures	123.6	136.6	139.1	151.3	143.2	179.8	189.3	207.5	237.3	237.4	251.9	269.1	294.7	305.1	286.3
Wood and cork except furniture and fixtures	117.5	145.6	138.1	171.1	133.1	114.8	121.7	167.9	142.1	151.2	188.3	214.1	277.1	234.1	239.7
Furniture and fixtures	120.1	128.6	106.9	106.7	85.3	115.7	120.3	131.7	170.8	154.1	114.1	145.6	124.3	100.8	71.0
Non-metallic products	111.1	130.1	154.8	168.0	171.8	199.7	204.8	210.0	238.8	269.2	287.9	297.3	326.4	329.9	314.7
Metal products, except machinery	150.6	154.9	169.2	200.4	166.9	253.9	272.5	269.7	304.2	330.2	347.2	347.5	335.9	371.5	322.3
Machinery, except electrical	82.8	118.2	107.8	85.4	67.8	123.6	122.5	121.8	178.0	97.3	151.1	181.9	175.2	103.2	87.0
Electrical machinery, apparatus, appliances and supplies	118.8	164.8	162.2	168.1	196.4	278.8	273.4	316.9	356.7	323.6	340.4	412.5	437.5	501.1	574.5
Transport equipment	116.6	117.3	85.4	79.6	80.8	82.4	97.3	142.7	195.1	145.2	154.8	173.4	234.1	229.2	189.6
Misc. durable manufactures	107.5	123.5	134.3	105.9	119.1	133.5	119.5	92.3	57.1	50.9	42.6	59.1	54.3	83.0	98.7

Source: Central Bank Statistical Bulletin - 1971

Table XVI.6 - INDEX OF THE PHYSICAL VOLUME OF PRODUCTION IN MANUFACTURING:  
1956 - 1970

Period	All Manufactures		Non-Durable Manufactures		Durable Manufactures	
	Index	Percent change	Index	Percent change	Index	Percent change
1956	115.7		114.0		123.6	
1957	125.0	8.0	122.6	7.5	136.6	10.5
1958	134.6	7.7	133.7	9.0	139.1	1.8
1959	145.8	8.3	144.7	8.2	151.3	10.8
1960	150.5	3.2	152.0	5.0	143.2	5.4
1961	160.5	6.6	156.4	2.9	179.8	25.6
1962	169.7	5.7	165.8	5.9	189.3	5.3
1963	180.5	6.4	174.9	5.6	207.5	9.5
1964	195.5	8.3	186.8	9.8	237.3	14.4
1965	200.9	2.8	193.3	3.5	237.4	0.04
1966	218.6	8.8	211.6	9.5	251.9	6.1
1967	226.6	3.7	217.7	2.9	269.1	6.8
1968	247.7	9.3	237.9	9.3	294.7	9.5
1969	256.3	3.5	246.0	3.4	305.1	3.5
1970 <sup>a</sup>	256.9	0.2	250.7	1.9	286.3	6.2

Source: Central Bank Statistical Bulletin, 1971.

Source of basic data: Cooperating government agencies and private firms.

r (Set up as a superior index) revised

## Total Supply of Manufactured Goods

As earlier discussed, value of the production of manufactured goods showed an increasing trend which was maintained for 1963, 1969 and 1970. Domestic supply requirements, however, increased with the unchecked growth of population and importation had to be resorted to in order to maintain a certain level of supply of various commodities. For some of these products however, domestic production was considerably more than the domestic requirements resulting in the exportation of these commodities.

Table XVI.7 shows the total production of broadly classified manufactured products, imports and exports and the total available supply in the country of these manufactured products.

TABLE XVI.7 - TOTAL SUPPLY OF MANUFACTURED PRODUCTS IN THE COUNTRY BY MAJOR INDUSTRY GROUP, 1968-1970  
(Total Domestic Supply = Production + Imports - Exports)  
(In Thousand Pesos)

Major Industry Group	Production (Value of Gross Output)			Imports (C.I.F. Value)			Exports (C.I.F. Value)			Total Domestic Supply of Manufactured Products		
	1968	1969	1970 <sup>a</sup>	1968	1969	1970	1968	1969	1970	1968	1969	1970
20 - Food, manufactured	2,781,193	3,031,598	3,950,490	433,749	407,429	459,358	868,944	894,921	1,668,180	2,346,198	2,544,106	2,741,648
21 - Beverages	676,735	690,103	846,456	7,240	6,931	5,605	108	7,741	4,612	633,567	692,322	844,320
22 - Tobacco	588,545	723,912	875,880	7,465	6,182	3,106	34,755	35,292	44,197	561,553	705,002	834,489
23 - Textiles	804,288	800,020	1,028,234	307,591	355,383	467,946	14,879	12,753	22,654	1,097,000	1,142,650	1,473,526
24 - Footwear, other wearing apparel and made up textile goods	273,567	250,078	305,247	78,157	15,361	16,222	163,840	173,874	232,760	187,884	91,565	88,709
25 - Wood and Cork Products except furniture	564,371	560,351	657,415	4,650	5,431	6,598	270,126	257,689	377,116	299,495	308,073	286,897
26 - Furniture and Fixtures	53,108	65,533	56,417	5,872	2,755	2,260	4,422	2,602	12,733	60,558	62,184	45,984
27 - Paper and Paper Products	320,652	319,262	324,176	142,646	152,488	249,787	1,510	3,170	9,939	461,488	468,580	768,024
28 - Printing, Publishing and Allied Industries	238,003	265,771	306,989	29,827	32,300	39,084	539	445	619	267,291	297,626	349,414
29 - Leather and Leather Products, except footwear and other wearing apparel	29,320	29,333	33,007	2,961	2,284	2,408	-	9	40	32,281	31,608	35,375
30 - Rubber Products	258,073	263,185	401,955	37,569	35,038	44,146	697	1,469	1,154	29,945	296,754	444,947
31 - Chemicals and Chemical Products	1,552,473	1,480,374	2,170,256	540,145	559,375	906,289	430,152	320,655	754,522	1,662,466	1,713,094	2,322,023
32 - Products of Petroleum and coal	767,935	930,498	1,388,313	65,585	62,408	113,678	103,053	120,274	304,956	730,467	872,632	1,197,035
33 - Non-metallic mineral products, except products of petroleum and coal	396,899	425,102	468,675	70,233	63,069	80,421	3,231	7,103	25,050	463,901	481,068	583,234
34 - Basic metal products	376,901	508,643	905,375	406,934	500,541	840,586	30,558	64,485	149,340	883,267	944,699	1,596,021
35 - Metal products, except machinery and transport equipment	511,946	528,798	504,972	804,173	178,847	217,694	2,557	1,581	2,590	713,562	706,058	720,076
36 - Machinery except electrical machinery	91,410	72,544	113,312	911,785	992,840	1,351,072	689	1,147	2,198	1,002,506	1,064,237	1,462,186
37 - Electrical machinery, apparatus, appliances and supplies	348,029	359,432	517,503	311,373	313,769	449,193	483	31	1,657	658,919	672,660	965,039
38 - Transport equipment	598,060	547,604	628,585	646,746	584,751	820,319	168	543	145	1,244,698	1,132,322	1,448,859
39 - Miscellaneous manufactures	94,025	123,622	204,055	946,475	916,582	1,337,639	2,880,102	3,106,704	4,900,563	1,839,607	2,060,496	3,358,865
All Industries	11,281,431	11,991,737	15,087,110	5,211,368	5,193,266	7,413,421	4,790,560	5,012,252	8,215,600	11,702,232	12,172,744	14,784,241

a/ Preliminary  
b/ Includes value of imported and exported commodities basically used as inputs in the following industry groups: Agriculture, hunting, forestry and fishing; and Mining and quarrying.

Source: Department of Commerce and Industry, Bureau of the Census and Statistics. Annual Survey of Manufactures and Foreign Trade Statistics of the Philippines, 1968-1970.

## Imports and Exports

Goods imported from various countries supplement the inadequate supply of these manufactured goods in the country. The reduction of imports is one of the many goals of a developing country like the Philippines as it drains the country's dollar reserves and offsets the beneficial effects of increases in exports causing an imbalance in the balance of payments of the country. As shown in Table XVI.7, imports of most commodities for 1968-1970 showed considerable increases while a few showed abrupt decreases during 1970 compared to 1968 and 1969. A more detailed breakdown of these imported manufactured goods presented in the foreign trade chapter of this yearbook shows the import-oriented commodities as compared to the export-oriented ones.

At the present stage of the country's development process, experts have tagged expanding exports as an important part of the strategy of moving the national economy to a higher growth level. Such importance was given to exports because they provide the foreign exchange requirements for a costly program of industrialization and they correct at the same time the country's balance of payments disequilibrium.

In spite of the problems met by the manufacturing industries, signs of expansion in exports of manufactured products have been noticed in recent years. Philippine export earnings registered a 77.76 percent increase in 1970 as compared to 1968. Such increase is further reflected in most small-scale or light industries where production had gone up beyond the total available supply requirements in the country. Most significant is the increase in "footwear and other wearing apparel and made-up textile goods" industry where the percentage of production to total domestic supply requirement had gone up to over 300 percent in 1970. It may be noted that the "furniture and fixtures" industry which contributed 2.39 percent of the imports in 1968 to meet the domestic supply requirements, showed improvements during the following years. Its percentage of production compared to total available supply rose from 97.61 percent in 1968 to 105.39 percent in 1969 and 122.80 percent in 1970. It was noted that where the percentage of production to the available supply are above 100 percent, industries are able to export the surpluses. In cases where it is less than 100 percent, the deficiency in production is accounted for by imports. Evidently, large-scale or heavy industries, particularly those engaged in metal and other related industries, are still import-dependent. (Table XVI.8)

Table XVI.8.—PER CENT OF PRODUCTION TO TOTAL AVAILABLE SUPPLY,  
1968 - 1970

Major Industry Group	1968	1969	1970
20 - Food, manufactured	118.54	119.16	144.09
21 - Beverages	98.87	99.68	100.25
22 - Tobacco	104.77	104.10	104.92
23 - Textiles	73.32	70.01	69.78
24 - Footwear, other wearing apparel and made-up textile goods	145.60	273.12	344.10
25 - Wood and Cork Products, except furniture	188.64	181.88	299.15
26 - Furniture and Fixtures	97.61	105.39	122.80
27 - Paper and paper products	69.48	68.13	62.25
28 - Printing, publishing and allied industries	89.04	89.30	88.88
29 - Leather and leather products, except footwear and other wearing apparel	90.83	92.80	104.43
30 - Rubber products	87.90	88.69	90.34
31 - Chemicals and chemical products	93.38	86.11	93.46
32 - Products of petroleum and coal	105.13	106.63	115.98
33 - Non-metallic mineral products, except products of petroleum and coal	85.56	86.37	89.57
34 - Basic metal products	45.78	53.84	56.73
35 - Metal products, except machinery and transport equipment	71.75	74.89	70.13
36 - Machinery, except electrical machinery	9.12	6.82	7.75
37 - Electrical machinery, apparatus, appliances, and supplies	52.82	53.43	53.63
38 - Transport equipment	48.05	48.36	43.39
39 - Miscellaneous manufactures	-5.11	-6.29	-9.90
All Industries	96.40	98.51	107.45

It may therefore, be stated that the bright prospects of Philippine manufactured exports are in several fields of the light industries such as: food, tobacco, footwear, other wearing apparel and made-up textile goods, furniture and fixtures, as well as wood and cork products. The "Petroleum and coal products" industry also showed encouraging performance in recent years such that if this industry were fully tapped and developed, the pace of Philippine manufacturing development, might be accelerated further.

### **Total Supply**

As shown in Table XVI.7, total available supply of manufactured products increased during the last three years, 1968-1970. A generally increasing trend is noticeable in most commodities, except for three commodities (footwear, wood and cork products, and furniture and fixtures) which declined sharply in 1970. However, in the leather, metal and transport equipment groups, a fluctuating trend is evident. Their total available supply declined in 1969 and then an increase was reflected in 1970. Contrary to the general trend, it was only the "footwear" commodity group that has continuously declined since 1968. This may be attributed to the rapidly increasing export volume of this commodity.

Increments in the total available supply of manufactured products may be attributed to the growth in the production of consumer goods as well as to a relatively great increase in imports of capital goods in 1970. From these may be inferred the economy's attempts at increasing its capacity to meet the increasing demand for manufactured goods owing to the rapid population increase. Furthermore, the increase in the imports of manufactured products suggests the country's inability to fill the gap between demand and supply for manufactured products through domestic production.

### **Manufacturing Outlook**

Of the many problems encountered by manufacturing industries in the Philippines, the most significant had been the following: 1) tightness of money and credit; 2) rising cost of production; and 3) competition from imports. Despite these difficulties and deterrent factors to the growth of the whole sector, still a majority of the industries were essentially optimistic about their prospects for increased output, sales and profits. However, while optimism pervades as far as sales are concerned, the investment intentions were far from good. Very few had plans for additional investment in productive facilities.

In the light industries category, prospects are bright in the manufacture of the following products (which must be the main source of export goods): ceramics, shellwork and woodcraft. Manufacture of other food preparations such as canned mangoes and smoked fish likewise promises an encouraging status in the export market.

In the wood products industry, the outlook is fairly optimistic. However, unless the Philippines can sustain a fairly competitive price for its products, the country will remain below the level of other countries. This is because there is the danger of deterioration of the country's competitive position in the export market due to increasing freight rates and production costs.

Rubber products industry is likewise optimistic with respect to their sales and profits. The industry indicated sufficient capacity to absorb the anticipated increase in demand in future years. However, the increasing imports of similar products pose a serious problem on the whole industry.

Heavy-scale industries likewise showed willingness to expand their productive facilities in spite of growing problems anticipated in the coming years. This somehow did not hold true to certain industries under present conditions.

The chemicals and chemical products industry is most optimistic in its expectations with respect to profits. Yet, only about 55 percent of the whole industry indicated intentions of additional capital investments under present conditions.

Another industry which is one of moderate optimism is the electrical machinery, apparatus, appliances and supplies industry. This industry reported significant increases in production levels and sales volume through the past 15 years. While they expected an increase in future years, plans for expansion are somewhat remote at the moment.

Expecting progress in the volume of sales but a rather small increase in profits is the Petroleum industry. This may be attributed to the tight competitive conditions prevalent in an oligopolistic industry.

Paper industry, on the other hand, is rather mildly optimistic and bordering on indifference. There is, however, willingness to invest in additional productive facilities under its present operating conditions.

In the metal industry, significant gains and attempts have been made to boost industrial development. Its outlook appears to be one of moderate to highly optimistic despite the problems of financing its operations.

### Government Assistance to Manufacturing

The growth of manufacturing, although largely dependent on the private sector, is greatly influenced by the economic policies of the government. To provide therefore, for a healthy growth of the industrial sector and for the solution of its problems as well as for a climate conducive to investments, the government formulated policies through viable industrialization plans and programs.

Since the post-war period, a number of economic policies and control measure supported the industrialization program of the country to ensure the growth of existing industries and accelerate the development of new ones. These measures which were usually biased toward manufacturing comprised mechanisms for industrial protection such as tax exemptions, preferential allocation of foreign exchange and exchange and import controls.

Philippine industrial growth since the post-war period was stimulated by the tax incentives of the government. Foremost and most significant of these tax exemption policies was Republic Act No. 35 which extends full exemption from all internal revenue taxes "new and necessary industries". Such exemption applied to industries whether capitalized by Filipinos or aliens for a period of four years. Under this law, an industry is qualified as "new" if it had not been commercially exploited before the war and as "necessary" if it contributes towards economic (industrial) development.

Republic Act No. 901 likewise provided for full exemption from all directly payable taxes as may be imposed by the government. The Basic Industries Law accorded basic industries exemption from import duties, compensating tax, special import tax, and foreign exchange tax. These laws on the whole encouraged and stimulated the growth of new and necessary industries.

The preferential treatment given to Filipinos in the allocation of foreign exchange as well as the import and exchange controls provided a sheltered market for the emerging industries. Furthermore, these channeled the flow of foreign exchange to uses needed for industrialization in addition to the priority it gave the industry in the allocation of dollars.

Another big boost to the country's industrial development efforts is the enactment of the Investment Incentives Act (Republic Act No. 5186) in 1967. This marked another important milestone in the development process of the industrial sector. The law spells out the ground rules for the entry and operations of foreign investments. It guarantees repatriation of capital and remittance of profits, safety and fair treatment of such investments, and indicate the fields where they may enter solely or in joint venture with domestic capital. The law offers, inducements such as tax exemption, priority treatment and financial and technical assistance to local capitalists. In addition, it accords equal benefits and incentives to local capital to engage in pioneering industries.

With the proper implementation of the provisions of the law, it is anticipated that these incentives would hasten the rate of domestic capital formation which, in turn, would accelerate Philippine industrial growth.

## CHAPTER XVII — CAPITAL EXPENDITURES, CONSTRUCTION AND HOUSING

There are no special surveys conducted to gather data and information on capital expenditures by major sectors and by provinces. However, this summary of capital expenditures on fixed assets for industry as presented below may serve the purpose. At least some efforts have been made to fill up the need, but the more important data on this subject have not yet been published.

### CAPITAL EXPENDITURES ON CONSTRUCTION, MACHINERY AND EQUIPMENT, 1968 AND 1969

Table XVII.1 gives information on capital expenditures on construction, machinery and transport equipment, also considered as fixed assets for industry in 1968. The new category, machinery and other production equipment, accounted for about 74.9 per cent of the total expenditure of ₱528,586.4 thousand in 1968. This was followed by building and structure, with a total expenditure of ₱88,347.2 thousand or 17.1 percent.

With a complete breakdown of the capital expenditures, the ever constant item that topped the list was manufactured food. However, on transport equipment expenditures, this particular item ranked only second to beverage, with a total expenditure of ₱847.3 thousand, or about one third of the total expenditures for used transport equipment. The total fixed assets expenditures for non-metallic mineral products except products of petroleum and coal) came second with ₱103,022.8 thousand among the industries. Meanwhile, the tail-ender in the group was leather and leather products, with total expenditures of ₱357.7 thousand only.

During the year 1969, the total capital expenditures as shown in Table XVII.2 amounted to ₱702,756.6 thousand, or an increase of 36.8 percent over that of the previous year. This figure covered those for 2,170 establishments, which are less by 215 establishments from that of 1968. The number of almost all industrial establishments decreased except beverage, leather and leather products, products of petroleum and coal and machinery, which showed slight increases of three, one, two and six establishments, respectively.

With regard to the expenditures by group, in 1969 basic metal industries came first, with a total of ₱303,793.0 thousand, or 43.2 percent. Unlike the previous year, when manufactured food occupied the first place, this industry ranked only second in 1969, with ₱101,590.5 thousand, or 14.4 percent. The major expenditures for the fixed assets were shared by basic metal industries and wood cork products (except furniture) with manufactured food and chemical and chemical products coming in occasionally. Just like in 1968, the industry with the least expenditures was leather and leather products (except footwear and other wearing apparel), with only ₱332.0 thousand, which was even lower by ₱25.7 thousand than the previous year.

### Local Government Construction Projects, FY 1968-1969 and 1969-70

The Philippines, just like any other developing country moving towards industrialization, has a tendency to undertake construction projects of an ambitious nature. In implementing these projects the government and the private sector have set goals designed to improve the living conditions of the people. Not only that government buildings for offices, residences or for markets have been constructed, but that these buildings could also withstand the vicissitudes of time and the elements.

The Annual Survey of Construction Projects of Local Governments conducted periodically by the Services Division, Bureau of the Census and Statistics, is a means of gathering statistics on local government construction. It also serves to provide up-to-date statistics on the magnitude and types of public construction and the contributions of these projects to total capital formation. The data gathered usually relate to the number and value of new projects and improvements and repairs undertaken by the local governments.

Table XVII.1.—CAPITAL EXPENDITURES ON CONSTRUCTION, MACHINERY AND EQUIPMENT: 1968

(Value in thousand pesos)									
Code	Industry Group and Industry	Number of Establishments	Total	Building and Structure		Machinery and Other Product and Equipment		Transport Equipment	
				Used	New	Used	New	Used	New
	All Industry, Total	2,385	528,586.4	2,169.4	88,347.2	20,728.7	365,592.3	2,691.0	39,080.8
20	Food, manufactured	378	161,292.7	1,293.9	26,316.3	23,834.1	100,176.2	334.5	9,337.7
21	Beverages	63	14,876.6	254.6	2,048.2	227.8	4,609.2	847.3	6,889.5
22	Tobacco products	51	17,531.9	-	5,634.6	3.9	9,591.2	38.4	2,263.8
23	Textiles	115	63,181.9	-	9,905.7	293.3	51,617.8	169.3	1,195.8
24	Footwear, other wearing apparel & made-up textile goods	281	7,920.8	22.2	775.4	2,884.0	3,817.7	7.7	43.8
25	Wood & cork products, except furniture	256	17,555.1	15.9	2,487.1	1,189.0	10,294.3	390.5	2,178.3
26	Furniture and fixtures	91	1,024.6	8.5	440.3	72.8	368.9	1.1	133.0
27	Paper and paper products	68	8,344.8	-	1,268.2	75.9	6,239.7	-	761.0
28	Printing, publishing and allied industries	138	7,136.0	-	1,779.5	319.3	3,953.1	60.7	1,023.4
29	Leather and leather products except footwear and other wearing apparel	31	397.7	3.0	79.0	12.8	202.4	-	62.5
30	Rubber products	49	10,786.9	12.4	1,765.9	101.3	8,040.5	-	866.8
31	Chemical and chemical products	165	39,833.1	148.1	7,010.3	377.4	25,723.9	90.9	6,482.5
32	Products of petroleum and coal	8	18,971.3	-	101.1	-	17,985.2	-	885.0
33	Non-metallic mineral products except products of petroleum and coal	98	103,022.8	22.7	14,755.4	392.1	86,748.5	267.0	837.1
34	Basic metal industries	59	11,281.7	129.0	1,735.4	72.4	8,592.0	34.0	718.9
35	Metal products, except machinery and transport equipment	159	14,768.0	99.5	1,528.6	367.0	11,307.3	37.7	1,467.9
36	Machinery, except electrical machinery	59	2,474.5	-	242.6	12.7	1,964.8	-	254.4
37	Electrical machinery, apparatus, appliances and supplies	94	7,877.4	194.9	1,674.3	233.5	4,455.0	91.4	1,088.3
38	Transport equipment	126	16,774.9	4.7	8,287.4	203.5	6,884.9	300.0	1,094.4
39	Miscellaneous manufactures	96	3,771.7	-	511.9	65.9	2,986.7	20.5	186.7

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division.

Table XVII.2.—CAPITAL EXPENDITURES ON CONSTRUCTION, MACHINERY AND EQUIPMENT: 1969

(Value in thousand pesos)									
Code	Industry Group and Industry	Number of Establishments	Total	Building and Structure		Machinery and Other Product and Equipment		Transport Equipment	
				Used	New	Used	New	Used	New
	All Industries, Total	2,170	702,756.6	1,895.9	122,061.3	9,664.2	522,317.7	2,168.2	42,648.6
20	Food, manufactured	313	101,590.5	133.6	19,520.8	1,616.2	69,662.5	245.4	10,412.0
21	Beverages	66	26,789.7	-	3,768.4	1,492.2	10,008.3	247.8	11,253.0
22	Tobacco products	47	10,569.4	-	1,867.5	-	6,517.5	-	2,184.4
23	Textiles	111	66,500.6	612.3	6,808.7	128.2	57,777.6	33.4	1,140.4
24	Footwear, other wearing apparel and made-up textile goods	246	4,712.0	22.9	869.2	38.9	3,354.6	60.2	366.2
25	Wood and cork products, except furniture	231	36,147.0	1,003.8	3,329.8	1,911.5	27,604.1	331.5	1,966.3
26	Furniture and fixtures	74	903.6	.3	311.8	1.5	473.4	-	116.6
27	Paper and paper products	64	7,947.8	138.9	1,140.5	35.3	6,111.7	24.6	496.8
28	Printing, publishing and allied industries	127	5,104.6	-	479.1	97.7	3,889.0	10.4	628.4
29	Leather and leather products except footwear and other wearing apparel	32	332.0	93.4	75.9	11.3	114.0	5.9	31.5
30	Rubber products	47	9,848.6	419.5	893.6	99.8	7,446.7	17.5	977.5
31	Chemical and chemical products	163	26,518.6	238.8	5,041.6	970.6	14,653.5	560.0	5,054.1
32	Products of petroleum and coal	10	10,528.4	-	531.2	-	8,185.9	-	1,811.3
33	Non-metallic mineral products, except products of petroleum and coal	88	40,465.2	-	4,154.1	1.9	35,340.0	109.1	860.1
34	Basic metal industries	55	303,793.3	838.7	63,927.6	65.8	237,412.7	.1	2,048.4
35	Metal products, except machinery and transport equipment	155	16,322.7	664.9	2,378.7	1,500.0	10,037.1	156.4	1,585.6
36	Machinery, except electrical machinery	65	2,019.0	1.4	105.1	103.8	1,607.2	19.2	182.3
37	Electrical machinery, apparatus, appliances and supplies	82	8,648.1	.5	1,424.2	29.5	6,418.6	72.7	702.6
38	Transport equipment	102	14,424.6	22.3	4,613.1	379.1	8,702.8	246.3	461.0
39	Miscellaneous manufactures	92	9,591.2	204.6	800.4	1,181.6	7,000.8	27.7	376.1

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division.

The data presented are based on the reports of 1,080 local governments submitted by Provincial and City Engineers and the Municipal Treasurers. Around 7 per cent of the local governments reporting had not constructed any project during the year (Fiscal Year 1969-70).



The over-all construction activities of local governments during FY 1969-1970, as shown in Table XVII.3, involved a capital expenditure of 441,245.9 thousand pesos distributed among 31,669 projects. The construction program focused its activities toward the completion of 26,099 projects and the partial completion of 5,570 projects. The completed projects had a total construction cost of 319,178.6 thousand pesos, while the unfinished projects incurred an expenditure of 122,067.3 thousand pesos. These completed projects are only higher by 2,716 than that of FY 1968-1969 which had a total of 23,383 projects. As can be expected, the unfinished projects of 8,759 with a total cost of 158,302 thousand pesos decreased by 3,189 projects in FY 1969-1970.

Table XVII.3-LOCAL GOVERNMENT CONSTRUCTION, BY STATUS AND BY LEVEL OF GOVERNMENT- FY 1969 AND FY 1970

Projects and Level of Government	FY 1968 - 1969						FY 1969 - 1970					
	Total		Completed		Unfinished		Total		Completed		Unfinished	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
All Projects, Total	32,142	443,445	23,383	285,143	8,759	158,302	31,669	441,245.9	26,099	319,178.6	5,570	122,067.3
New Projects, Total	21,113	230,873	15,202	143,233	5,911	87,640	20,278	202,998.1	16,470	142,243.6	3,808	40,754.6
Projects continued from last fiscal year /s	2,489	87,714	2,689	47,188	800	40,526	2,641	58,129.0	2,396	32,553.1	445	25,375.2
Provincial .....	1,774	50,608	1,463	30,026	311	20,562	1,834	37,260.6	1,664	22,655.7	170	14,661.9
City .....	188	17,536	142	5,463	46	13,075	135	10,533.6	102	5,273.3	33	5,260.3
Municipal .....	1,527	18,568	1,084	11,679	443	6,889	672	10,334.8	430	4,624.1	242	5,710.7
Projects, started during fiscal year /s	17,624	143,159	12,513	96,045	5,111	47,114	17,677	144,862.1	14,274	109,690.4	3,363	34,178.7
Provincial .....	10,973	92,338	7,542	65,269	3,431	27,069	11,637	95,539.8	9,675	73,512.9	1,962	22,086.3
City .....	1,092	14,924	843	9,348	249	5,576	1,223	15,442.3	1,097	11,935.1	126	3,907.2
Municipal .....	5,559	35,897	4,128	21,428	1,431	14,469	4,777	33,887.0	3,502	24,242.4	1,275	9,644.6
Improvements & repairs, Total	11,029	212,572	8,181	141,910	2,848	70,662	11,391	238,247.8	9,629	176,935.1	1,762	61,312.7
Improvements & repairs, continued from last fiscal year/s	2,113	63,917	1,511	45,096	602	18,821	1,329	69,476.8	952	37,981.5	377	31,495.3
Provincial .....	176	49,895	716	36,306	160	13,589	801	39,952.6	655	32,110.4	146	27,642.2
City .....	218	5,718	162	4,408	50	1,310	57	4,087.4	32	3,562.2	5	525.2
Municipal .....	1,019	8,304	627	4,382	392	3,922	471	5,436.8	245	2,308.9	226	3,127.9
Improvements and repairs, started during fiscal year	8,916	148,655	6,670	96,814	2,246	51,841	10,062	168,774.0	8,677	138,953.6	1,385	29,837.4
Provincial .....	4,864	120,019	3,764	77,586	1,100	42,433	6,258	124,591.6	5,751	101,635.3	507	22,956.3
City .....	911	12,538	777	9,205	134	3,333	921	27,856.2	812	25,197.9	109	2,698.3
Municipal .....	3,141	16,096	2,129	10,023	1,012	6,075	2,883	16,323.2	2,114	12,160.4	769	4,162.8

Sources: Department of Commerce and Industry, Bureau of the Census and Statistics, Services Division, "Survey of Local Government Construction, Fiscal Year 1969 - 1970".

The construction program of the provincial government (Table XVII.3) involved total expenditure of 317,344.6 thousand pesos distributed among 20,530 projects during FY 1969-70. This amount represented 71.9 percent of the total local government contribution to capital formation. There were 17,745 projects completed during the fiscal year, with an aggregate cost of 229,914.3 thousand pesos, while the remaining unfinished projects of 2,785 had an estimated cost of 87,403 thousand pesos. On the other hand, the previous fiscal year had an aggregate cost of 312,860 thousand pesos distributed among 18,487 projects; completed projects involved 13,485 with a total cost of 209,207 thousand pesos, and the remaining unfinished 5,002 projects, a total cost of 103,653 thousand pesos. For the percentage distribution of the local government's construction expenditures, refer to Table XVII.4.

The construction activities of 47 cities in the country manifested a total expenditure of 57,919.5 thousand pesos distributed among 2,336 projects in FY 1969-70. Around 45,928.5 thousand pesos, or 79.3 percent of the cities' capital outlay, was spent in the completion of 2,063 projects and the balance of 11,991.0 thousand pesos, the cost of 273 unfinished projects. The completed projects are composed of 154 continuing projects and 1,909 projects started during the year. The continuing projects consisted of 102 new projects worth 5,273.3 thousand pesos and 52 projects of improvement and repairs worth 3,562 thousand pesos, while the completed projects started during the year consisted of 1,097 new projects worth 11,935 thousand pesos and 812 projects on improvements and repairs worth 25,157 thousand pesos. Construction work in FY 1968-1969 is worth 51,720 thousand pesos distributed among 2,409 projects. The completed projects, numbering 1,930 and valued at 28,424 thousand pesos, seemed to be much less in value than the amount spent in FY 1970. Unfinished projects numbering 479 are worth 23,295 thousand pesos, of which 249 projects valued at 5,576 thousand pesos were started during the fiscal year.

Table XVII.4.—PERCENTAGE DISTRIBUTION OF EXPENDITURES ON LOCAL GOVERNMENT PROJECTS, BY STATUS OF PROJECT AND BY LEVEL OF GOVERNMENT: FY 1969 AND FY 1970

Projects and Level of Government	FY 1968-1969			FY 1969-1970		
	Total	Completed	Unfinished	Total	Completed	Unfinished
All Projects, Total	100.0	100.0	100.0	100.0	100.0	100.0
New Projects, Total	52.1	50.2	55.4	46.2	44.6	49.8
Projects continued from last fiscal year/s	19.8	16.5	25.7	13.5	10.2	21.0
Provincial	11.4	10.5	13.0	8.8	7.1	12.0
City	4.2	1.9	8.3	2.4	1.7	4.3
Municipal	4.2	4.1	4.4	2.3	1.4	4.7
Projects, started during fiscal year/s	32.2	31.7	29.7	32.7	34.4	28.8
Provincial	20.8	22.9	17.1	21.6	23.0	18.0
City	3.4	3.3	3.5	3.5	3.8	2.9
Municipal	8.1	7.5	9.1	7.6	7.6	7.9
Improvements and repairs, Total	47.9	49.8	44.6	53.8	55.4	50.2
Improvements and repairs, continued from last fiscal years	14.4	15.8	11.9	15.7	11.9	25.8
Provincial	11.2	12.7	8.6	13.6	10.1	22.8
City	1.3	1.6	0.8	0.9	1.1	0.4
Municipal	1.9	1.5	2.5	1.2	0.7	2.6
Improvements and repairs, started during fiscal year	33.5	34.0	32.7	38.1	43.5	24.4
Provincial	27.1	27.3	26.8	28.1	31.8	18.8
City	2.8	3.2	2.1	6.3	7.9	2.2
Municipal	3.6	3.5	3.8	3.7	3.8	3.4

Sources: Department of Commerce and Industry, Bureau of the Census and Statistics, Services Division, "Survey of Local Government Construction, Fiscal Year 1969-1970".

The reports of 895 municipal treasurers showed a total capital expenditure of 65,981.8 thousand pesos distributed among 8,803 projects in FY 1969-70. This amount represented 15.0 percent of the total capital expenditures incurred by the local government. The amount of 43,335.8 thousand pesos was spent for the completion of 6,291 projects. The new projects completed consisted of 430 continuing projects worth 4,624 thousand pesos and 3,502 projects started during the year worth 24,242.4 thousand pesos. On the other hand, completed projects on improvements and repairs numbered 245 continuing projects worth 2,308.9 thousand pesos and 2,114 projects started during the year worth 12,160.4 thousand pesos. Construction activities in FY 1968-1969 among municipal governments totalled 78,867 thousand pesos for 11,246 projects which are higher than those in FY 1970: 7,968 projects worth 47,513 thousand pesos were completed during the fiscal year while the remaining 3,278 continuing projects with a value of 31,355 thousand pesos were left for completion.

Table XVII.5 shows the distribution of expenditures for local government constructions for fiscal year 1968-1969 and 1969-1970. Another table which follows, Table XVII.6 gives the percentage distribution of the capital expenditures. The construction expenditures for streets and bridges for fiscal year 1969-1970 rocketed to as high as 237,328.8 thousand pesos or 74.8 percent of the total provincial outlay of 317,344.6 thousand pesos. For the previous fiscal year, expenditures for streets and bridges also got the topmost priority with 236,031 thousand pesos or 75.5 percent. Of the aggregate outlays for economic development, the biggest is accounted for by roads. Even in comparison with other government functions, still, the biggest portion, next to education, is absorbed by expenditures for roads. Expenditures for roads, cover, among others, the cost of construction and maintenance of national, provincial, city, and municipal roads and bridges.

The concentration of funds to this particular type of public construction had been a common trend in the provincial government as well as in the other two levels of local government. However, in 1970, the expenditures for public buildings took over the main line of preference in the municipal level with a total of 23,887.0 thousand pesos or 32.6 percent, followed by expenses for streets and bridges of only 20,483.0 thousand pesos or 31.0 percent of the total expenditures.

Table XVII.5.—LOCAL GOVERNMENT CONSTRUCTION, BY TYPE AND BY LEVEL OF GOVERNMENTS FY 1969 TO FY 1970

(Cost in thousand pesos)

Type of Construction	FY 1968 - 1969						FY 1969 - 1970							
	Total		Provincial		City		Municipal		Total		Provincial		City	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Total	22,142	423,445	18,487	312,860	2,609	51,718	11,246	78,867	31,669	441,245.9	20,520	317,344.6	2,326	57,919.5
Residential	1,312	5,269	58	872	228	1,394	1,026	3,003	762	17,590.4	42	875.8	339	16,245.5
Tenements	1,088	2,493	13	124	125	296	950	2,073	174	16,146.0	6	230.8	166	15,908.1
Government quarters for public officials	192	1,629	32	342	105	1,098	57	189	556	1,171.4	29	555.0	173	337.2
Others	32	1,147	13	406	-	-	19	741	-	273.0	7	90.0	-	-
Public Buildings	4,332	51,939	720	18,182	178	15,659	2,434	20,098	3,218	56,770.1	790	20,891.1	221	12,005.0
Provincial Capitol, City, Municipal and barrio halls	1,999	17,518	419	8,055	49	656	1,491	8,807	1,728	21,297.6	434	10,552.1	121	1,941.3
Markets	880	21,852	178	7,584	46	5,633	656	8,635	873	19,455.4	183	6,875.1	34	1,269.3
Others	493	14,569	123	2,543	83	9,370	287	2,656	617	16,018.1	173	3,463.9	66	8,782.4
Educational	14,754	55,883	10,414	31,914	1,213	6,803	2,127	15,167	14,743	47,458.5	11,544	29,822.7	1,132	6,039.6
Schools	14,189	50,932	10,262	29,056	1,181	8,455	2,746	13,421	14,059	38,919.2	11,309	24,824.3	999	4,534.5
Libraries and reading centers	60	776	12	83	3	35	45	658	125	1,439.4	21	615.8	2	30.0
Recreational centers	270	2,645	61	1,915	14	178	195	552	302	4,132.5	145	2,937.1	22	649.7
Others	235	1,530	79	859	15	135	141	536	287	2,966.8	75	1,409.4	109	825.2
Hospitals	97	6,833	42	1,798	20	1,722	18	1,313	115	7,144.8	50	4,281.6	32	2,203.0
Health centers	464	2,573	84	723	54	278	326	1,272	426	2,181.8	120	1,195.7	25	443.8
Streets and bridges	9,501	281,355	6,004	236,011	553	21,009	2,944	24,315	9,631	276,411.3	6,823	237,328.8	470	18,599.5
Water supply system	1,658	9,013	632	3,647	50	983	966	4,383	1,858	8,070.7	732	3,454.4	36	1,061.9
Other public construction	1,024	28,580	528	17,694	93	2,870	405	9,006	926	24,616.3	419	19,525.5	71	1,339.4

Of all the types of public construction, the least to be given preferences are those for hospitals and health centers especially for the provincial and municipal levels. However, for 1969-1970, the least expenses were also incurred by the city government for health centers and hospital with 443.8 and 2,203.9 thousand pesos, respectively. The residential types of government construction for provincial level is always to be expected at the end of the list for only few officials are given the privilege of having quarters in the provinces. Aside from that, tenements are also not expected to rise in those places.

Table XVII.6—PERCENTAGE DISTRIBUTION OF EXPENDITURES ON LOCAL GOVERNMENT PROJECTS, BY TYPE AND BY LEVEL OF GOVERNMENT: FY 1969 AND FY 1970

Type of Construction	FY 1968 - 1969				FY 1969 - 1970			
	Total	Provincial	City	Municipal	Total	Provincial	City	Municipal
<b>Total</b>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
<b>Residential</b>	<u>1.2</u>	<u>0.1</u>	<u>2.7</u>	<u>3.7</u>	<u>4.0</u>	<u>0.3</u>	<u>23.1</u>	<u>0.7</u>
Tenements	0.6	a/	0.6	2.6	3.6	a/	27.5	0.4
Government quarters for Public Officials	0.3	a/	2.1	0.2	0.3	0.2	0.6	0.3
Others	-	-	-	-	-	-	-	-
<b>Public Buildings</b>	<u>12.2</u>	<u>5.8</u>	<u>30.3</u>	<u>25.5</u>	<u>12.8</u>	<u>6.6</u>	<u>20.7</u>	<u>36.2</u>
Provincial, Capitol, City, Municipal and Barrio Halls	4.0	2.6	1.3	11.1	4.8	3.3	3.3	13.3
Markets	4.9	2.4	10.9	10.9	4.4	2.2	2.2	17.2
Others	3.3	0.8	18.1	3.5	3.6	1.1	15.2	5.7
<b>Educational</b>	<u>12.6</u>	<u>10.2</u>	<u>17.1</u>	<u>19.2</u>	<u>10.8</u>	<u>9.4</u>	<u>10.4</u>	<u>17.6</u>
Schools	11.5	9.3	16.4	17.0	8.8	7.8	7.8	14.5
Libraries and reading centers	0.2	a/	0.1	0.8	0.3	0.2	a/	1.2
Recreational Centers	0.6	0.6	0.3	0.7	1.0	0.9	1.1	0.8
Others	0.3	0.3	0.3	0.7	0.7	6.5	1.5	0.1
<b>Hospitals</b>	<u>1.5</u>	<u>1.2</u>	<u>3.3</u>	<u>1.7</u>	<u>1.6</u>	<u>1.3</u>	<u>3.8</u>	<u>1.1</u>
<b>Health Centers</b>	<u>0.6</u>	<u>0.3</u>	<u>0.5</u>	<u>2.0</u>	<u>0.7</u>	<u>0.4</u>	<u>0.8</u>	<u>2.3</u>
<b>Streets and Bridges</b>	<u>63.5</u>	<u>75.5</u>	<u>40.6</u>	<u>30.8</u>	<u>62.7</u>	<u>74.8</u>	<u>32.1</u>	<u>31.0</u>
<b>Water Supply System</b>	<u>2.0</u>	<u>1.2</u>	<u>1.9</u>	<u>5.6</u>	<u>1.8</u>	<u>1.1</u>	<u>1.8</u>	<u>5.4</u>
<b>Other Public Construction</b>	<u>6.4</u>	<u>5.7</u>	<u>3.6</u>	<u>11.5</u>	<u>5.6</u>	<u>6.1</u>	<u>2.3</u>	<u>5.7</u>

a/ Less than 0.1 per cent.

Sources: Department of Commerce and Industry, Bureau of the Census and Statistics, Service Division "Survey Government Construction, Fiscal Year 1969 and Fiscal Year 1970".

### THE INFRASTRUCTURE PROGRAM

During the term of President Marcos, the thrust of the Administration's program has been towards a full and relentless application of people's energies to nation-building. The construction of the numerous facilities which constitute the infrastructure for lasting progress has a high priority in the development program. Begun early in 1966, the 4-year infrastructure program of the government has shown some accomplishments, a summary of which as of June 30, 1969 was submitted to the President by the Infrastructure Operations Center, Camp Aguinaldo, Quezon City, shown as follows:

1. **Highways** (BPH & 5IEB) — In support of the highway program of the Department of Public Works and Communication, the Armed Forces, through the 51st Engineer Brigade, have helped in government constructions.

Projects	Physical Measures	Expenditures	Remarks
a. Concrete (PCCP) Road	1,352.6 kms.	P 232,757,180	58% of the 4-year target
b. Asphalt Roads	1,963.0 kms.	76,109,281	98% of the 4-year target
c. Construction of Gravel Roads	2,388.5 kms.	37,253,856	61% of the 4-year target
d. Permanent Bridges	597 Bridges	63,840,027	59% of the 4-year target
T O T A L		P 459,965,344	

In addition to the accomplishments in the four highway project categories, the Bureau of Public Highways improved a total of 4,497.0 kilometer of existing road at a cost of P50,346,659 and numerous miscellaneous improvement projects with a total cost of P23,997,590.

2. **Irrigation** — Through the National Irrigation Administration, eight pilot projects on water management are on process of development in collaboration with experts commissioned by the Asian Development Bank. Under study at the moment is the Upper Pampanga River Multi-purpose Project, which will irrigate 81,000 hectares in Nueva Ecija and supply power and water to Greater Manila.

Projects	Physical Measures	Expenditures	Remarks
a. 1) Rehabilitation of Existing System	27,500 hectares (13 project, on-going)	P 13,398,100	all project are being done by Administration.
2) Construction of Access Roads	160 kms.	1,507,200	Including Angat access road project.
b. Project for completion	66,550 hectares (27 project, on-going)	58,972,610	13 projects in full operation and 5 in partial operation.
c. Communal Projects			
1) Area of rehabilitated existing system	28,206 hectares )		
2) Areas generated from new projects & rehabilitated system	24,068 hectares )	3,579,570	
d. Construction of Pump Irrigation	4,240 Pumps 114,257 hectares	29,526,232	Programmed 102,000 kms.
TOTAL	260,851 hectares	P 106,963,712	

The over-all accomplishment of 232,465 hectares of irrigated area is 51 percent of the 4-year physical target of 458,050 hectares. The total expenditures is 36.4 percent of the programmed cost of P293,600,000.

3. **Portwork** — To relieve congestion in the ports of Manila and other national and municipal ports, additional projects throughout the country are under construction. Through the combined effort of the Bureau of Public Works and the Philippine Navy, dredging of foreshore areas has been added to their projects.

Projects	Physical Measures	Expenditures	Remarks
a. Port of Manila			
1) Piers/wharves	4 projects	P 27,559,570	
2) Warehouse/cargo	5 projects	3,247,686	1 on-going
3 Port Area	6.0 hectares	3,891,888	1 on-going
4) Marine Slipway	98.7 per cent	6,054,986	1 on-going
5) Other Projects	projects	5,120,810	7 on-going
b. Other National Ports	46 projects	6,809,443	15 on-going
Other Port Facilities	14 projects	315,699	2 on-going
c. Municipal Ports	224 projects	4,965,181	34 on-going
Others	27 projects	1,138,157	4 on-going
d. Shore Protection	76 projects	860,124	4 on-going
Length	3,214 L.M.		
e. Dredging			
Volume dredged	42,466,277 cu. m.	27,530,378	
<b>T O T A L</b>		<b>P 87,493,922</b>	

4. **Flood Control and Drainage** — To mitigate the destruction caused by flood, especially in the developed delta areas, flood control works are concentrated on five major river basins in the country.

Projects	Physical Measures	Expenditures	Remarks
a. Construction Major Projects	55 projects	P 6,945,785	6 on-going
b. Construction Minor Projects	94 projects	2,570,038	6 on-going
c. Repair and Improvement	39 projects	1,156,721	
d. River Dredging			
1) Length of river	28,655 L.M.		
2) Volume dredged	2,795,585 Cu. M.	3,061,842	
<b>T O T A L</b>		<b>P 13,734,386</b>	

5. **Buildings** — An important feature of the infrastructure program is the construction of prefabricated schoolhouses. Aside from this, national buildings, hospitals, and sanitarium have also been constructed.

Projects	Physical Measures	Expenditures	Remarks
a. Public Bldgs.			
1) Construction, national government offices buildings, provincial capitols, city halls, municipal buildings, markets, slaughter-house, etc	320 buildings	P 11,191,081	19 on-going
2) Construction, hospitals, sanitarium health center, etc	84 buildings	4,229,178	11 on-going
3) Construction/repair/improvement parks, plazas, monuments, sites, etc.	232 projects	1,189,569	3 on-going
4) Repairs/improvement national & local government buildings, hospitals, sanitarium, markets, etc.	405 projects	8,534,325	15 on-going

## b. School Buildings

## 1) "Marcos Type"

Fabricated	73,515 rooms	P'159,614,535	43,484 rooms
Shipped to provinces	61,180 "		from Japanese
Delivered to site	46,189 "		reparations.
Erection completed	30,185 "		This includes
Erection underway	2,504 "		peso cost of
			finished mate-
			rials from
			reparations

## 2) "Army Type"

Fabricated	8,270 rooms	P 22,859,583	
Shipped to provinces	8,228 "		
Delivered to site	8,228 "		
Erection completed	8,228 "		
Erection underway	— "		

## 3) Other types

a) Construction, academic school buildings	1,799 rooms	P 6,391,372	66 on-going
b) Construction, industrial art buildings, H.E. buildings, etc.	288 buildings	2,030,269	10 on-going
c) Repair/improvement, academic school, industrial arts building, H.E. buildings, etc.	2,230 projects	3,451,509	6 on-going
d) Construction, repair, improvement canteens, toilets fences, flagpoles, sites, etc.	107 projects	419,398	3 on-going

**T O T A L** ..... **P 219,910,819**

6. Airports — To support the growth of civil aviation and to meet the needs of modern air travel, the infrastructure program has embarked on an expanded airports development program.

Projects	Physical Measures	Expenditures	Remarks
<b>a. Airport Runways, Taxiways and Aprons</b>			
1) Concrete Paving	397,911 sq. m. 4-projects completed & 6 on-going	P 13,899,000	Includes partial accomplishment on on-going projects.
2) Asphalt Paving	435,000 sq. m. 3 projects completed	2,609,000	"
3) Grading & Sub-base Correction on Macadam Pavement	630,240 sq. m. 21 projects completed 6 on-going	3,118,000	
4) Grading	78,000 sq. m. 3 projects completed	91,000	
5) Site Survey	2 completed	11,000	on going
<b>b. Terminal Building</b>	1 completed	852,000	
<b>c. Air Navigation Facilities</b>	7 projects completed, 2 projects bidded, 1 on-going	1,617,000	
<b>T O T A L</b> .....		<b>P 22,197,500</b>	

7. **Water Supply** — The Manila and Suburbs Waterworks System, a project partly financed with an IBRD loan, is aimed at providing the metropolitan area with a continuous water supply.

Projects	Physical Measures	Expenditures	Remarks
<b>a. Manila &amp; Suburb Water Supply</b>			
Interim Project			
1) Water Supply	3 completed	P 72,095,342	
3 projects	100%		
2) Water Treatment Phase	4 completed	12,077,793	
5 projects	1 — 93%		
3) Water Distribution Phase	12 completed	58,386,172	
50 projects	35 on-going		
	3 not started		
4) Miscellaneous		16,263,486	
	<b>TOTAL (Item I)</b>	<b>P158,822,793</b>	
5) IBRD Loan		<b>\$ 15,353,744</b>	
<b>b. Provincial Waterworks</b>			
1) Improvement/Extension of Existing System	82 systems 8 on-going	P 5,049,081	In addition there were 45 improvement projects & 38 construction projects completed as to program of funds released.
2) Construction New System	88 system 11 on-going		
<b>c. Artesian Wells</b>			
1) Rehabilitation	1,955	P 1,400,228	
2) Minor Repair	8,735	469,250	
3) Drilling	608	3,393,000	
<b>d. Spring Development</b>			
	35	252,400	
<b>TOTAL (Items a, b &amp; c)</b>		<b>P 10,563,960</b>	
<b>GRAND TOTAL</b>		<b>169,386,752</b>	
		<b>\$ 15,353,744</b>	

8. **Power** — Power development and transmission are also being accelerated and feasibility studies are also being made for the construction of power-transmission grids and thermal plants in strategic locations.

Projects	Physical Measures	Expenditures
<b>a. Power Plants</b>		
1) Angat	completed ( 212,000 KW )	\$ 33,286,281 P137,911,466
2) Ma. Cristina No. 3	Substantially completed ( 50,000 KW )	\$ 3,438,668 P 26,534,000
3) Bataan Thermal Plant	23% ( 75,000 KW )	\$ 2,048,521 P 10,045,000
4) Ma. Cristina No. 4	66.3% ( 50,000 )	\$ 718,507 P 6,682,000
<b>b. Power Stations</b>		
	14 completed ( 64,000 KW )	P 6,865,000
	5 on-going	
		<b>P 30,770,300</b>



a. Ilocos Region	357.6 kms.	P 9,094,200
b. Central Luzon	445.6 kms.	P 16,924,800
c. Laguna — Batangas	95.4 kms.	1,454,800
d. Mindanao	102.8 kms.	3,296,400
<b>T O T A L</b> .....	( 262,000 kw. ( 981.4 kms. TL	<b>\$ 39,491,977</b> <b>P218,807,766</b>

9. Telecommunications — The Bureau of Telecommunications is limited to the function of developing projects in areas where the potential traffic is inadequate, so that private enterprises, participating extensively in this industry, may make reasonable profits.

Projects	Physical Measures	Expenditures	Remarks
a. Nationwide Telecom Expansion and Improvement Projects	42.9%	P 6,691,200 \$ 5,264,000	As of June 30, 1969. a. Accomplishments 76.1% b. Expenditures P 11,919,000 \$ 6,604,000
b. Government Telephone	57.9%	P 6,580,089 \$ 1,640,202	As of June 30, 1969 a. Accomplishment 92.8% b. Expenditures P 10,853,520 \$ 6,520,888 (Shipments I-80)
c. Normal Extension of Telegraph Services	52 Stations	P 2,345,370	As of Oct. 6, 1968 — 1,289 stations
<b>T O T A L</b> .....		(P 15,616,659 (\$ 6,904,202	

### PRIVATE BUILDING CONSTRUCTION, 1969-1970

The government, with its multiple responsibilities towards the citizenry does not have all the means to carry out the plans designed for faster growth and successes in the different phases of public activities. The private sector has been motivated to participate in various activities for the general public. In view of the inadequacy of the government to cater to the needs of every sector of society, several private enterprises have participated in construction activities.

Table XVII.7 presents the number, floor area, and value of private building construction in selected areas, by type of building and by year, from 1966 to 1970. For statistical purposes, private building construction is generally classified into three types, namely: (1) residential building, (2) non-residential buildings, and (3) additions, alterations and repairs. In 1966, private construction in Metropolitan Manila amounted to 279,207 thousand pesos, or 71.5 percent of the total; this is higher than that in the 32 chartered cities; which is worth 111,123 thousand pesos, or 28.4 percent. This is in spite of the fact that there are more residential and non-residential buildings in the latter than in the former. This difference may be due to the fact that in Metropolitan Manila there are bigger and more modern buildings than the said chartered cities. However, it should be noted that there were more alterations and repairs done in the greater Manila Area in the amount of 25,740 thousand pesos, or 79.8 percent of the total construction value than those in the selected cities, resulting in a correspondingly higher cost.

Table XVII.7 - NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS, BY TYPE OF BUILDING: 1966-1970  
(Value in thousand pesos, floor area in thousand square meters)

Year	All Selected Areas				Metropolitan Manila				Other (32) Chartered Cities						
	Number 1/	Floor area, 2/	Value	Total	Manila			Suburbs			Number 1/	Floor area, 2/	Value		
					Number 1/	Floor area, 2/	Value	Number 1/	Floor area, 2/	Value					
All Private Building Construction, Total															
1966	17,492	2,793	390,330	8,771	1,740	279,207	3,718	676	122,747	5,053	1,064	156,460	8,721	1,053	111,123
1967	19,007	3,220	511,613	10,557	1,939	355,052	4,208	494	97,011	6,349	1,445	258,021	8,450	1,281	156,961
1968	18,262	3,038	424,440	9,303	1,809	297,212	3,035	408	78,058	6,268	1,401	219,154	8,959	1,229	145,228
1969	18,180	2,993	444,218	8,782	1,835	294,159	2,705	370	71,596	6,077	1,465	232,677	9,398	1,158	150,059
1970	15,971	2,898	420,147	7,485	1,944	284,967	2,314	333	78,812	5,171	1,611	206,155	8,486	954	135,180
Residential Buildings															
1966	9,396	1,369	175,205	4,169	857	126,050	1,096	262	34,137	3,073	595	91,913	5,227	512	49,155
1967	10,033	1,663	211,437	4,901	991	151,956	901	190	24,840	4,000	801	127,086	5,132	672	59,511
1968	10,417	1,534	204,656	4,670	959	146,102	780	159	22,024	3,896	800	124,078	5,741	575	58,554
1969	10,822	1,540	222,887	4,672	951	146,917	818	160	25,852	3,854	791	121,065	5,150	589	7,970
1970	9,343	1,715	197,744	3,982	1,224	135,065	606	126	22,026	3,376	1,098	113,039	5,361	491	62,679
Non-residential Buildings															
1966	3,222	1,160	182,894	1,292	687	127,417	591	357	77,542	691	330	49,875	1,940	473	55,477
1967	3,024	1,252	255,378	1,376	720	166,176	451	241	55,036	925	479	111,140	1,648	532	89,202
1968	2,529	1,209	195,342	912	647	117,014	251	204	43,906	661	443	73,108	1,617	562	78,328
1969	2,400	1,197	183,784	764	692	116,371	211	175	34,578	553	517	81,793	1,636	505	67,413
1970	1,867	905	179,173	574	517	115,316	165	160	42,553	409	357	72,763	1,293	388	63,857
Additions, alterations and repairs															
1966	4,874	264	32,230	3,310	196	25,740	2,031	57	11,068	1,289	139	14,672	1,534	68	6,490
1967	5,950	304	44,797	4,280	227	36,950	2,856	63	17,135	1,424	164	19,815	1,670	77	7,847
1968	5,316	293	42,439	3,715	202	34,094	2,004	45	12,127	1,711	157	21,967	1,601	91	8,345
1969	4,958	254	37,542	3,346	191	30,867	1,676	35	10,963	1,670	156	19,904	1,612	63	6,675
1970	4,761	279	43,229	2,929	204	34,595	1,543	47	14,232	1,386	157	20,353	1,832	75	8,644

1/ Refers to the number of private building construction permits issued.

2/ Excludes floor area of alterations and repairs.

3/ Includes Quezon City, Pasay City, Makati, Mandaluyong, Paranaque and San Juan.

Source: Bureau of the Census and Statistics, Journal of Philippine Statistics 2nd Quarter 1969 p. 47, 5rd Quarter 1970 pp. 41-42, July to Sept. 1968 pp. 35-37, 4th Quarter 1969 pp. 39-41, 4th Quarter 1970 pp. 37-38.

The above trend is consistent from 1966 to 1970. However, the year 1970 ended with a general slump in all selected areas in the number of building permits issued, in floor area, and in the value of all private building construction as compared with those in the previous years. The setback may be due to such contributory factors as rising costs of labor and increasing prices of raw materials, the "floating rate" of the peso, and Central Bank restrictions on imports.

With reference to the same table, there are 9,396 more residential units than non-residential ones (3,222). This is true in both the Metropolitan Manila, with 4,169 for residential and 1,282 for non-residential units, and the 32 selected cities, with 5,227 and 1,940 residential and non-residential, respectively. Yet the values of non-residential buildings are higher (as proved by 175,205 thousand pesos for residential and 182,894 thousand pesos for non-residential buildings) in all selected areas. This is so because residential units are usually smaller than non-residential buildings, which are oftentimes bigger and more costly.

Shown in Table XVII.8 are the number, floor area and value of private building construction in selected areas in the Philippines, by type of building and by month for 1969 and 1970. This is related to the previous table which deals with annual figures from 1966 to 1970. This table shows that the number of private buildings constructed in all selected areas declined from 18,180 in 1969 to 15,971, a fall of around 12.2 percent. Total floor area also dropped from 2,994 thousand square meters to 2,899 square meters; total value declined from ₱444,217 thousand to ₱420,148 thousand, or by 5.4 percent.

Private building construction in 1969 shows the greatest number of permits issued during the months of May, January, March and October. The months of August, October, and December took the first, second, and third places, respectively, for the floor area covered. In 1970 the months of February, March, April and May accounted for the highest number of building permits issued. For floor area and the value of construction, January came in first, with an aggregate total of 622 thousand square meters, or 21.4 per cent of the total floor area valued at ₱46,288 thousand, or 11 percent of the total for the year.

The Greater Manila Area showed the highest expenditures for February, 1969 with ₱30,983 thousands or 10.5 per cent of the total value for the year while in the preceding year, January recorded the highest value, with ₱37,386 thousand (13.1 per cent). Other chartered cities (32) had October with ₱19,309 thousand, or 12.8 percent on top of the list and for 1970, July registered ₱15,698 thousand or 11.6 percent.

It may be noted that in the months in which registered construction activities are at their peak are in the dry season of the country (November-May) or at the time just after the rainy days (October). And as can be expected, expenditures also increase during these months.

For the year 1970 residential building contributed 9,343 permits, or 58.5 per cent of the total permits issued, with an aggregate floor area of 1,716 thousand square meters, valued at ₱197,745 thousand, or 47.1 percent. The suburbs of Manila are still number one in point of floor area and value of residential buildings constructed, while the lumped 32 other chartered cities ranked second. On the other hand, Manila had consistently lagged behind, showing that people who can afford to build new houses tend to move out and build their homes in the suburbs rather than stay in the city which, as commonly recognized, is becoming more polluted everyday.

In the same year (1970) the 32 other chartered cities issued 1,293 permits for non-residential buildings, or a good 69.3 percent, covering a floor area of 388 thousand square meters valued at ₱63,857 thousand. The suburbs of Manila contributed more in terms of value, a total of ₱72,763 thousand, or 40.6 percent of the total for non-residential construction.

Additions, alterations, and repairs had an over-all total of 4,761 permits, involving 279 thousand square meters, valued at ₱43,230 thousand or 10.3 percent of total value for all types of private building construction.

TABLE XVII.—TRENDS, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS IN TYPE OF BUILDING AND BY MONTH 1969 - 1970  
(Value in thousand pesos, floor area in thousand square meters; details do not always add to the totals because of rounding)

Year and month	All selected areas				Metropolitan Manila				Other (28) scattered cities					
	Number	Floor area	Value	Total Number/Floor area	Number	Floor area	Value	Subtotal Number/Floor area	Number	Floor area	Value	Number	Floor area	Value
All private building construction														
1969, total	18,385	2,594	444,217	1,878	2,505	2,432	362	74,326	6,077	1,466	222,762	9,328	1,138	130,077
January	1,652	264	36,632	162	241	221	27	5,999	982	134	18,542	849	101	12,491
February	1,596	265	42,112	178	30,800	220	28	5,550	526	139	23,432	840	68	11,358
March	1,650	232	35,221	151	20,809	283	28	5,253	622	123	20,258	745	61	9,112
April	1,680	241	36,047	172	23,747	265	30	5,474	695	126	18,175	850	94	78,300
May	1,714	251	37,401	193	27,375	264	30	5,474	695	124	21,900	811	78	10,086
June	1,506	234	31,254	172	18,699	219	32	5,711	451	90	12,997	836	112	12,995
July	1,414	244	37,832	134	23,982	239	34	6,200	466	107	17,451	734	104	13,084
August	1,452	244	36,574	131	23,447	220	35	7,215	486	117	15,696	695	81	19,329
September	1,659	285	45,587	171	22,678	225	36	7,282	466	117	18,096	695	81	19,329
October	1,223	208	36,008	174	23,642	153	29	6,405	351	83	14,277	659	78	12,059
November	1,181	232	37,134	179	25,094	161	29	6,895	351	145	18,201	659	78	12,059
1970, total	15,971	2,492	420,148	1,945	284,587	2,314	311	70,812	5,171	1,611	268,115	6,486	924	115,180
January	1,371	222	36,288	166	37,486	180	29	6,501	505	122	30,895	4,695	4,71	4,928
February	1,314	216	34,773	166	25,821	187	30	7,122	542	128	19,722	4,785	4,71	4,928
March	1,500	224	36,533	166	20,204	175	30	5,475	518	135	17,582	4,785	4,71	4,928
April	1,499	224	36,533	166	20,204	175	30	5,475	518	135	17,582	4,785	4,71	4,928
May	1,471	219	34,637	161	24,117	224	26	6,111	455	115	16,006	4,785	4,71	4,928
June	1,588	220	34,637	161	24,117	224	26	6,111	455	115	16,006	4,785	4,71	4,928
July	1,371	203	32,898	161	34,049	234	23	5,685	363	82	13,475	4,785	4,71	4,928
August	1,231	213	34,152	161	36,135	194	23	5,971	377	96	12,364	4,785	4,71	4,928
September	1,240	213	34,152	161	36,135	194	23	5,971	377	96	12,364	4,785	4,71	4,928
October	1,333	213	34,152	161	23,238	222	43	7,154	423	96	14,084	4,785	4,71	4,928
November	1,018	210	33,778	161	29,435	146	35	6,269	354	72	13,164	4,785	4,71	4,928
December	1,075	210	28,098	69	17,069	136	17	3,469	354	72	13,164	4,785	4,71	4,928

## Metropolitan buildings

1969, total	10,822	1,541	222,882	1,672	229	146,002	518	132	25,851	1,856	721	121,062	5,132	282	74,562
January	1,002	138	19,896	139	85	13,705	62	11	1,855	377	74	11,871	563	53	5,890
February	972	137	18,455	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
March	983	134	18,455	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
April	955	128	16,989	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
May	1,049	137	20,571	134	94	15,178	81	13	2,082	413	82	12,898	515	59	5,995
June	870	116	16,697	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
July	947	129	16,697	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
August	878	129	16,697	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
September	763	108	16,181	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
October	933	153	25,275	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
November	754	119	25,275	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
December	718	113	16,444	127	88	13,277	70	11	1,855	377	74	11,871	563	53	5,890
1970, total	9,243	1,276	197,745	1,382	1,221	131,061	506	126	22,086	1,375	1,028	113,082	5,361	431	62,672
January	856	156	29,390	399	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
February	846	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
March	855	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
April	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
May	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
June	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
July	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
August	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
September	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
October	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
November	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622
December	869	155	29,390	411	416	14,769	86	13	2,080	343	405	12,748	4,461	4,49	4,622

See footnotes at end table.

Table XVII.8—PERMITS, FLOOR AREA AND VALUE OF PRIVATE BUILDINGS CONSTRUCTION FOR URBAN AREAS BY TYPE OF BUILDING AND BY MONTH 1969-1970 - Continued

(Values in thousand pesos, floor area in thousand square meters; details do not always add to the totals because of rounding.)

Year and month	All selected areas			Metropolitan Manila												Other (32) chartered cities		
	Number <sup>2/</sup>	Floor area <sup>3/</sup>	Value	Total			Manila			Santo Domingo			Alabang			Number <sup>2/</sup>	Floor area <sup>3/</sup>	Value
				Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value			
Non-residential buildings																		
1969, total	2,400	1,132	181,781	754	628	116,370	211	172	34,778	213	216	81,791	1,636	202	67,412			
January	208	107	14,415	68	64	8,297	20	13	2,897	48	51	5,420	140	43	6,197			
February	269	109	22,899	95	72	17,028	23	20	5,255	72	51	11,772	174	37	5,811			
March	199	75	13,265	69	47	9,798	13	8	1,984	56	38	7,774	130	28	3,907			
April	213	97	16,205	72	59	10,387	17	16	3,315	55	43	7,071	141	37	5,818			
May	192	99	14,289	62	64	10,296	18	11	2,291	44	53	8,005	130	35	3,992			
June	194	91	11,303	54	50	7,510	18	17	2,209	36	32	4,301	140	41	3,772			
July	196	100	16,539	65	49	7,122	22	10	1,798	43	39	5,323	181	50	9,417			
August	210	151	14,381	69	99	8,244	20	22	2,373	49	77	5,871	141	32	6,137			
September	173	82	11,946	54	43	7,761	17	18	3,105	37	24	4,656	139	39	4,18			
October	216	109	16,268	67	52	8,347	14	17	3,109	33	35	5,238	149	37	7,92			
November	166	89	18,438	39	45	12,638	8	7	1,846	31	38	10,792	127	44	5,80			
December	164	87	13,673	50	47	9,021	21	13	3,455	29	33	5,566	114	40	4,85			
1970, total	1,967	904	179,172	774	516	115,316	165	160	44,554	402	326	74,763	1,201	288	61,827			
January	150	120	20,911	46	94	17,354	10	7	1,785	36	87	15,569	104	46	13,57			
February	138	88	14,948	49	37	9,521	12	12	3,128	37	45	6,993	109	31	4,524			
March	107	82	14,300	46	48	8,107	9	10	2,182	37	38	5,925	121	34	4,535			
April	124	57	9,732	37	29	5,008	7	3	668	30	25	4,340	87	28	4,724			
May	161	69	13,089	50	43	9,289	13	12	4,602	37	31	4,687	111	26	3,795			
June	164	94	27,992	56	51	21,572	21	15	4,318	35	35	12,254	108	44	4,424			
July	161	76	15,179	54	26	5,427	18	11	2,972	36	15	2,455	127	50	4,752			
August	165	36	5,488	32	11	2,286	11	4	1,024	21	6	1,262	133	45	3,205			
September	158	58	11,612	52	23	4,538	13	6	1,651	39	16	2,887	106	35	4,774			
October	168	69	12,427	65	40	8,302	25	25	6,032	40	16	2,270	103	39	4,124			
November	142	103	23,586	47	72	18,589	14	50	13,558	33	22	5,031	95	31	4,997			
December	129	50	9,908	40	21	5,322	12	3	633	28	19	4,688	89	29	4,58			
Additions, alterations and repairs																		
1969, total	4,928	256	71,545	1,346	192	30,846	1,676	25	10,363	1,670	186	19,924	1,612	62	6,647			
January	442	18	2,621	296	11	2,178	139	2	907	127	9	1,270	146	6	441			
February	355	19	2,647	234	15	2,220	127	2	112	107	13	1,907	121	4	427			
March	468	23	3,425	352	16	2,724	183	6	1,185	169	10	1,338	116	7	702			
April	452	15	2,853	313	11	2,365	174	1	551	139	9	1,814	139	4	487			
May	473	14	2,540	307	11	1,901	169	3	844	138	7	1,097	166	3	635			
June	442	27	3,353	295	15	2,485	141	4	1,119	154	11	1,366	147	12	864			
July	371	15	2,294	255	11	1,851	143	1	464	112	9	1,387	116	3	441			
August	364	18	2,897	263	14	2,404	136	1	884	127	14	1,319	101	4	433			
September	507	21	4,045	317	16	3,496	143	3	1,472	174	13	2,024	190	5	545			
October	480	23	4,045	298	16	3,354	138	4	1,363	160	12	1,991	182	6	692			
November	303	9	1,647	218	6	1,164	94	3	694	124	3	470	85	3	48			
December	301	51	5,216	198	47	4,725	89	4	1,166	109	43	3,558	103	3	493			
1970, total	4,761	279	43,230	2,929	204	34,586	1,543	47	14,232	1,386	177	20,351	1,618	75	8,644			
January	365	45	4,986	241	40	5,263	114	10	2,699	127	30	2,568	124	5	72			
February	430	30	3,214	289	19	2,676	134	6	1,508	155	13	1,168	111	4	538			
March	478	29	3,757	289	21	2,205	117	2	579	172	18	1,627	189	8	1,255			
April	466	24	2,782	269	20	2,069	106	2	605	163	18	1,463	177	6	711			
May	485	22	3,830	306	13	2,722	191	5	1,899	115	8	823	179	6	1,10			
June	490	19	2,120	263	11	1,428	149	...	469	114	10	929	127	8	69			
July	434	16	2,504	268	8	1,975	149	...	713	119	8	1,232	166	5	52			
August	371	22	4,946	220	16	6,437	145	9	1,981	75	7	4,426	151	6	50			
September	364	15	2,817	200	11	2,290	111	1	664	89	10	1,626	164	4	52			
October	416	27	4,090	251	20	3,191	143	2	824	108	17	2,366	165	7	90			
November	288	15	2,388	164	11	1,991	93	4	1,099	69	7	892	124	4	39			
December	294	16	2,795	169	12	2,338	89	4	1,167	80	8	1,171	125	4	43			

<sup>1/</sup> Includes Quezon City, Caloocan City, Pasay City, Makati, Mandaluyong, Paranaque and San Juan.<sup>2/</sup> Refers to the number of private building construction permits issued.<sup>3/</sup> Includes floor area of alterations and repairs.<sup>4/</sup> Revised.

Source: Monthly Survey of Private Building Construction, Industry Division, Bureau of the Census and Statistics.

Tables XVII.9 and XVII.9a show a complete breakdown of construction activities in the suburbs of Manila and the 32 chartered cities in 1969 and 1970. It is shown, for instance, that Quezon City topped all areas covered in the survey of 1969, with greatest number of building construction permits issued — 2,930 permits or 161.1 percent, with a floor area of 654 thousand square meters valued at ₱94,918 thousand, or 21.3 percent of the over all total. Manila came next with 2,705 permits, or 14.8 percent, valued at ₱71,396 thousand. Makati ranked third in terms of total value, with ₱44,292 thousand, or 9.9 percent, while Paranaque placed third in terms of total permits issued and only fourth in terms of value of construction. For the other chartered cities, Cebu registered the highest number of permits — 1,003 or 10.6 percent of the total for 32 chartered cities. However, estimated construction value of Davao amounting to ₱16,549 thousand, or roughly 11 percent of the total for the chartered cities outranked that of Cebu valued at ₱13,236 thousand.

Although Quezon City still topped the list for the suburbs of Manila in 1970, there was a marked decrease of about 516 building permits issued. However, a slight increase of ₱596 thousand was registered in its construction value. For the other chartered cities, Baguio took the first position with 1,072 building permits issued, or 12.6 percent, while Cebu trailed second, with 877 or 10.3 percent of the over-all total. On the basis of total values, Davao, which is only fourth in the number of building permits issued, ranked first, with ₱18,647 thousand (13.79 percent). Baguio, with an estimated value of construction amounting to ₱15,797 thousands, or roughly 11.6 percent of the total for the chartered cities, was second.

Just like in Metropolitan Manila, the slump in private construction in the chartered cities is also prevalent in all sectors — residential, non-residential, and additions and repairs. Even the number of building permits issued during the period under review suffered a decline except that in additions, alterations, and repairs, with an increase of only 12.46 percent. According to the Philippine Architecture, Engineering and Construction Record (PAENCOR) building construction in the chartered cities is bound to decline, because of the exorbitant cost of real estate, critical shortage of available real estate, and the unabated traffic problem. Because of these problems, more and more people are establishing factories, apartments, and commercial buildings as well as residences in outlying areas outside of Manila and other chartered cities. The construction of the Manila North Diversion Road and the Manila South Diversion Road has resulted in a residential construction boom in areas like Bulacan, Cavite, and Laguna which are now accessible by bus in less than an hour from Manila.

### CONSTRUCTION ESTABLISHMENTS

New landmarks or whatever alterations in the country which eventually improve the view of the surroundings, be it in the urban or in the rural areas, owe much to the activities of the different private construction establishments. This section presents an analysis of these private establishments in the country. The data were gathered from the 1961 Economic Census, the first census of construction establishments conducted by the Bureau of the Census and Statistics; hence, there is no basis for comparisons of results.

Table XVII.10 presents the distribution of construction establishments by size of gross receipts, size of establishment, and industry group. Of the total 648 establishments, 261 or 40.2 percent accounted for large establishments, the greater portion of which is concentrated in gross receipts between ₱100,000 — 499,999. On the other hand, most of the small establishments, numbering 196 or 50.6 percent of the total belonged to the ₱10,000 — 49,999 bracket. Among the industry groups, 402 or 62 percent of the total number of establishments are in general building construction (residential, commercial, industrial and institutional), most of which fall in the group with ₱10,000 — 49,999 gross receipts. Special trade construction, which came second, included decorative works like tile, marble, mosaic work, and printing as the main industry.

Aside from the sizes of establishments determined by their gross receipts, there were also costs and value added for construction by the different industry groups and by industry as presented in Table XVII.11. As shown in this table large establishments had total gross receipts amounting to ₱130,886 thousand, while these gross costs aggregated ₱77,073 thousands. Among the industry groups, the general building construction had the main bulk of gross receipts, ₱30,989 thousand or 61.8 percent of the total, while their total gross costs amounted to ₱50,695 thousand, or 65.2 percent.

Table XVII.9.—NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS, 1949

(Floor area in thousand square meters, value in thousand pesos; details do not always add to the totals because of rounding.)

Area	Total			Residential building			Non-residential buildings			Additions, alterations and repairs		
	Number	Floor Area	Value	Number	Floor Area	Value	Number	Floor Area	Value	Number	Floor Area	Value
All selected areas .....	18,180	2,994	444,218	10,822	1,540	222,889	2,400	1,197	183,784	4,958	256	27,545
Metropolitan Manila	8,782	1,836	284,129	4,872	951	146,919	764	692	116,374	3,346	192	30,889
Manila	2,705	371	71,396	818	160	25,854	211	175	34,578	1,676	36	10,944
Suburbs	6,077	1,465	222,763	3,854	791	121,065	553	517	81,793	1,670	156	19,905
Calocan City	634	89	9,930	332	52	5,729	69	28	3,220	233	9	961
Pasay City	277	73	18,363	197	43	6,496	51	28	11,491	29	2	376
Quezon City	2,930	654	94,918	1,572	341	53,774	221	190	25,971	1,137	122	15,173
Makati	661	279	44,292	493	153	25,324	64	116	16,753	104	10	2,215
Mandaluyong	392	89	12,221	270	46	5,514	46	32	5,817	76	11	890
Paranaque	955	200	33,940	847	117	18,720	69	82	14,978	39	1	212
San Juan	228	81	9,129	143	39	5,508	34	41	3,563	52	1	58
Other (32) chartered cities	9,298	1,158	150,092	6,150	589	75,970	1,636	505	87,413	1,612	54	6,676
Angeles	639	89	9,161	469	56	5,793	84	23	2,940	86	10	428
Baguio	713	89	10,792	423	50	5,539	113	33	4,409	177	6	428
Bacolod	441	51	12,275	292	28	6,925	55	15	4,124	94	8	1,226
Basilan	154	9	1,432	77	4	427	45	3	928	32	2	77
Butuan	184	36	3,394	145	15	1,407	35	21	1,974	4	13	13
Cabanatuan	156	18	2,299	111	12	1,546	29	6	684	16	28	28
Cagayan de Oro	723	92	10,066	569	42	3,845	116	47	5,971	38	3	290
Calbayog	42	2	220	35	1	111	4	1	105	3	4	4
Cavite	266	37	7,210	166	37	6,937	1	1	43	99	230	230
Cebu	1,003	131	13,236	628	67	7,014	198	54	5,407	177	10	815
Cotabato	166	28	4,030	87	12	1,652	43	16	2,118	36	60	60
Dagupan	429	35	4,620	271	17	1,963	64	14	2,439	94	4	218
Davao	448	2	185	17	2	179	1	73	9,664	89	5	362
Davao	868	123	16,549	568	45	6,503	211	73	9,664	89	5	362
Dumaguete	329	27	5,742	204	15	4,370	54	10	1,286	71	2	116
Gingoog	126	7	512	62	4	305	46	2	172	18	1	35
Iligan	200	84	12,400	129	20	2,231	64	63	10,137	7	1	32
Iloilo	424	40	6,091	235	18	2,664	79	20	2,928	170	2	499
Legaspi	114	15	2,727	59	11	2,183	25	2	304	30	2	240
Lipa	86	13	2,331	66	7	1,514	13	6	806	7	11	11
Lucena	228	19	3,108	152	14	1,459	34	5	572	42	77	77
Marikina	36	4	277	31	3	231	5	1	46	18	1	136
Mazda	176	42	6,367	102	14	1,632	56	27	4,999	18	1	136
Meycauayan	31	4	793	23	3	345	8	1	448	33	1	187
Ozamla	125	23	1,650	55	5	336	37	18	1,218	33	96	96
Roxas	103	101	1,261	74	8	700	10	3	374	19	1	187
San Carlos (Neg. Co.)	109	8	591	58	3	203	18	4	336	33	1	52
San Pablo	147	15	2,054	119	6	1,165	25	7	882	3	7	7
Silay	79	13	764	64	6	651	7	6	94	8	1	19
Tacloban	378	34	3,652	284	22	2,409	53	12	1,116	41	1	127
Tolado	58	3	383	55	2	266	2	1	123	1	1	4
Zamboanga	757	54	4,927	450	38	3,474	101	11	990	166	5	463

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division.

Table XVII.9a—NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS, 1970  
(Floor area in thousand square, value in thousand pesos; circles do not always add to the totals because of rounding)

Area	Total			Residential buildings			Non-residential buildings			Additions, alterations and repairs		
	Number	Floor Area	Value	Number	Floor Area	Value	Number	Floor Area	Value	Number	Floor Area	Value
All selected areas	15,971	2,899	420,148	9,343	1,716	197,745	1,887	904	179,173	4,761	279	43,330
Metropolitan Manila	7,483	1,345	284,987	3,982	1,223	135,063	274	516	115,316	2,922	204	34,386
Manila	2,314	334	78,832	606	127	22,026	165	160	42,553	1,543	47	14,239
Suburbs	5,171	1,611	206,155	3,376	1,098	113,039	409	356	72,763	1,386	157	20,353
Caloocan City	406	78	8,448	243	49	5,550	42	21	2,036	121	8	862
Pasay City	298	75	19,624	206	33	4,536	45	37	14,323	47	5	765
Quezon City	2,414	628	95,514	1,224	322	43,774	163	191	36,746	1,027	115	14,994
Marikina	513	558	36,462	366	491	23,967	52	60	10,834	75	7	1,661
Marikinaurong	316	67	8,182	219	37	4,516	37	12	2,245	60	18	1,421
Paranaque	1,067	145	28,549	946	123	24,107	48	21	3,774	33	1	368
San Juan	157	60	9,576	112	43	6,289	22	14	2,805	23	3	282
Other (32) chartered cities	8,486	954	135,181	5,361	491	62,680	1,293	388	63,857	1,832	75	8,644
Angles	426	53	6,401	274	26	2,822	94	23	3,105	58	4	474
Bacolod	491	74	13,428	374	41	6,100	79	32	7,094	38	1	234
Baguio	1,072	97	15,797	777	55	8,796	57	19	4,424	238	22	2,577
Basilan	160	11	1,051	91	5	362	34	4	605	35	2	84
Batuan	203	40	4,017	131	21	2,201	64	19	1,763	8	53	53
Cabatuan	135	20	3,169	77	8	1,200	30	12	1,913	28	3	56
Cagayan de Oro	752	79	9,056	523	43	4,189	119	33	4,670	110	3	197
Calbayog	38	1	152	24	1	123	2	1	14	12	15	15
Cavite	186	11	2,570	115	10	2,213	3	1	199	68	11	88
Cebu	1,777	104	15,574	520	52	5,918	116	41	8,496	241	11	1,160
Cotabato	118	10	1,287	46	4	564	29	6	581	43	3	144
Dagupan	322	31	4,058	205	16	1,792	40	12	1,872	77	3	394
Davao	33	1	103	29	1	89	1	1	10	3	5	4
Davao	724	121	18,647	421	53	8,242	173	63	9,503	130	5	902
Dumaguete	318	27	2,100	171	13	783	48	11	1,235	99	3	82
Iligan	123	7	713	50	4	295	48	2	3,963	25	1	89
Iloilo	161	37	5,739	98	13	1,686	50	22	3,963	13	2	513
Legaspi	387	26	3,561	143	13	1,769	44	11	1,279	200	2	300
Lipa	125	17	2,348	69	9	917	19	6	1,331	37	2	74
Lucena	67	8	1,636	54	5	1,314	7	3	309	65	1	47
Marikina	224	22	3,656	124	10	1,562	35	12	2,020	17	1	76
Marikina	144	21	3,218	101	11	1,475	26	9	1,696	1	1	9
Orico	30	9	2,018	20	2	364	9	7	1,645	20	1	76
Osamis	87	11	782	52	6	486	15	4	189	11	1	90
Roxas	72	7	628	50	4	365	11	3	253	24	1	46
San Carlos (Neg. Oco.)	92	8	780	61	6	617	7	8	126	9	1	34
San Pablo	156	17	2,078	131	9	1,205	16	2	739	11	1	72
Stilay	60	6	558	47	4	515	2	8	1,408	32	1	45
Tacloban	242	23	2,997	172	15	1,517	38	5	1,518	6	10	913
Toledo	58	7	1,823	46	2	260	6	9	1,536	167		
Zamboanga	603	48	5,198	365	29	2,749	71	9				

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Industry Division.



## CAPITAL EXPENDITURES, CONSTRUCTION AND HOUSING.

Table XVII.10—DISTRIBUTION OF CONSTRUCTION ESTABLISHMENTS BY SIZE OF GROSS RECEIPTS AND BY SIZE OF ESTABLISHMENT, BY INDUSTRY GROUP AND INDUSTRY, 1961

(Establishments with employment size of less than ten in the payroll period nearest November 15 are classified as *small*, except those with an average employment of ten or more for four payroll periods ending nearest February 15, May 15, August 15 and November 15, which are classified as *large*. If the average employment is less than ten but the November 15 employment is ten or more, such establishments are classified as *large*.)

Code	Size of Establishments and Industry	Total number of establishments	Establishments with Gross Receipts (gross) of -							
			1,000 - 4,999	5,000 - 9,999	10,000 - 49,999	50,000 - 99,999	100,000 - 499,999	500,000 - 999,999	1,000,000 - & over	
	All Establishments	648	76	77	227	76	135	29	38	
	Large Establishments	261	-	3	21	54	116	29	38	
	Small Establishments	387	76	74	206	22	10	-	-	
	All Establishments									
411	General building construction (residential, commercial, industrial, institutional)	482	43	50	139	50	83	14	23	
412	Heavy construction	70	2	4	20	11	24	9	20	
4121	Highway, street, and related construction	31	2	2	4	5	11	4	3	
4122	Heavy construction, such as sewers, water mains, roads, railroads, piers, tunnels, bridges, viaducts, dams, drainage projects, sanitation projects, hydro-electric plants, water projects, pipelines and all other related heavy construction	25	-	1	4	4	8	3	5	
4123	Marine, harbor and waterway construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation & construction of harbor)	20	-	1	2	2	3	1	1	
4124	Construction of airport, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines and telegraph wires	4	-	-	-	-	2	1	1	
420	Special trade contractor	176	11	23	66	15	20	6	5	
4201	Plumbing air conditioning, elevator, and escalator contractor	33	8	5	13	3	3	-	1	
4202	Electrical work (at site of construction) contractor	46	6	3	12	6	12	4	3	
4203	Water well drilling and water pump installation contractor	7	3	1	-	-	1	1	1	
4204	Turnkey, marble and mosaic work contractor	90	14	14	43	6	12	1	-	
4205	Painting and decorating contractor									
4209	Other trade contractor, n.e.c.									
	Large Establishments	261	-	3	21	54	116	29	38	
411	General building construction (residential, commercial, industrial, institutional)	160	-	1	18	34	75	14	23	
412	Heavy construction	56	-	1	4	20	28	9	20	
4121	Highway, street, and related construction	23	-	-	-	5	11	4	3	
	Heavy construction, such as sewers, water mains, roads, railroads, piers, tunnels, bridges, viaducts, dams, drainage projects, sanitation projects, hydro-electric plants, water projects, pipelines and all other related heavy construction	20	-	-	2	3	6	3	5	
4123	Marine, harbor and waterway construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation and construction of harbor)	20	-	1	2	2	3	1	1	
4124	Construction of airport, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines and telegraph wires	4	-	-	-	-	2	1	1	
420	Special trade contractor	45	-	1	4	20	20	6	5	
4201	Plumbing air conditioning, elevator, and escalator contractor	9	-	-	2	3	3	-	1	
4202	Electrical work (at site of construction) contractor	26	-	1	1	5	12	4	3	
4203	Water well drilling and water pump installation contractor	3	-	-	-	-	1	1	1	
4204	Turnkey, marble and mosaic work contractor	7	-	-	1	2	3	1	-	
4205	Painting and decorating contractor									
4209	Other trade contractor, n.e.c.									
	Small Establishments	387	76	74	206	22	10	-	-	
411	General building construction (residential, commercial, industrial, institutional)	242	43	49	126	16	8	-	-	
412	Heavy construction	14	2	3	6	1	2	-	-	
4121	Highway, street, and related construction	8	2	2	4	-	-	-	-	
	Heavy construction, such as sewers, water mains, roads, railroads, piers, tunnels, bridges, viaducts, dams, drainage projects, sanitation projects, hydro-electric plants, water projects, pipelines and all other related heavy construction	6	-	1	2	1	2	-	-	
4123	Marine, harbor and waterway construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation and construction of harbor)	-	-	-	-	-	-	-	-	
4124	Construction of airport, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines and telegraph wires	-	-	-	-	-	-	-	-	
420	Special trade contractor	131	11	22	64	5	9	-	-	
4201	Plumbing air conditioning, elevator, and escalator contractor	24	8	5	11	-	-	-	-	
4202	Electrical work (at site of construction) contractor	20	6	2	11	1	-	-	-	
4203	Water well drilling and water pump installation contractor	4	3	1	-	-	-	-	-	
4204	Turnkey, tile, marble and mosaic work contractor	69	14	14	42	4	9	-	-	
4205	Painting and decorating contractor									
4209	Other trade contractor, n.e.c.									

Source: Department of Commerce and Industry, Bureau of the Census and Statistics; *Summary Census of the Philippines, 1961, Construction Tables 10.*

Table XVII.11 - GROSS RECEIPTS, GROSS COSTS AND GROSS VALUE ADDED FOR CONSTRUCTION, BY INDUSTRY GROUP AND INDUSTRY, 1961

Code	Industry group and industry	Number of establishments	Gross receipts			Gross costs				Other costs		Gross value added (P1,000)
			Total (P1,000)	'Construction' work done (P1,000)	'Sub-contract' work done for others (P1,000)	Other receipts (including repair and maintenance, etc.) (P1,000)	Total (P1,000)	'Construction' materials (P1,000)	Fuels (P1,000)	Electricity (P1,000)	'(Including rental for machinery and equipment, etc.)' (P1,000)	
LARGE ESTABLISHMENTS												
411	General building construction (residential, commercial, industrial, institutional)	261	130,886	116,946	3,967	7,973	77,073	56,693	3,384	228	16,776	3,789
412	Heavy construction	160	80,989	74,609	1,153	5,227	50,695	40,045	1,008	133	9,509	30,286
4121	Highway, street, and related construction	56	33,861	29,672	3,523	666	18,082	8,935	2,190	62	6,895	15,769
	Heavy construction such as sewers, water mains, roads, railroads, piers, tunnels, bridges, dams, drainage projects, sanitation projects, hydro-electric plants, water power projects, pipelines, and all other related heavy construction	23	13,002	10,966	1,540	496	7,031	4,080	1,003	24	1,924	5,968
4123	Marine, harbor and waterway construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation and construction of harbors)	19	12,209	10,472	1,737	-	5,412	3,098	897	32	1,385	6,794
4124	Construction of airports, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines, and telegraph wires	10	2,796	2,380	246	170	1,316	521	115	5	675	1,479
419	Special trade contractor	4	5,854	5,854	-	-	4,323	1,236	175	1	2,911	1,528
4191	Plumbing, airconditioning, elevator, and escalator contractor	45	16,036	12,665	1,291	2,080	8,296	7,713	186	25	372	7,734
4192	Electrical work (at site of construction) contractor	9	2,476	1,546	494	436	454	433	8	-	13	2,021
4193	Water well drilling and water pump installation contractor	26	9,923	7,950	622	1,351	6,345	5,983	93	20	249	3,575
4194	Terrace, tile, marble and mosaic work contractor	3	2,048	1,921	26	101	713	580	70	4	59	1,333
4195	Painting and decorating contractor	7	1,589	1,248	149	192	782	717	13	1	51	805
4199	Other trade contractor, n.e.c.											

Source: Bureau of the Census and Statistics, 1961 Economic Census of the Philippines, Construction, Vol. IV.

Inasmuch as this chapter deals with capital expenditures, it should be noted that the capital expenditures for new and fixed assets for construction are shown in Table XVII.12. Capital expenditures mainly of large establishments amounted to ₱11,118 thousand, distributed as follows: new fixed assets, ₱4,670 thousand, and used fixed assets, ₱6,448 thousand. General construction again had the highest expenditures, both for new and used fixed assets, with ₱7,141 thousand, or 64.2 percent of the total expenditures. Heavy construction came next, with ₱3,248 thousand, but it was outranked by special trade construction in the expenditures for transport equipment.

In line with the expenditures incurred by the construction establishments, construction materials consumed by the same establishments is worthy of note. Table XVII.13 gives the cost of construction materials for large establishments only. Steel used for reinforcement was first, with ₱8,891 thousand, or 15.6 percent of the total cost of materials (₱56,693 thousand). The same item had the biggest (₱7,546 thousand or 18.6 percent) cost of general building construction. The material used in small amounts proved to be timber, which is used mainly for general construction and never for special trade construction.

Since the emergence of construction establishments, many have been interested in this line of work. Table XVII.14 shows the labor force in construction establishments and the amounts paid to such workers. For 261 large establishments, with a total of 17,880 persons engaged in them (143 are working owners and unpaid family workers), total payrolls and extra benefits had an aggregate of ₱27,678 thousand. General building contractors employed total manpower of 12,068, with payrolls and extra benefits amounting to ₱16,842 thousand. Some 4,018 builders are engaged in heavy construction, receiving ₱7,467 thousand with extra benefits of ₱111 thousand. The special trade contractors consisted of 45 establishments, with a total of 1,794 persons engaged in the different industries of the same type, with a total payroll and extra benefits of ₱3,300 thousand.

Table XVII.12 - EXPENDITURES FOR NEW AND USED FIXED ASSETS FOR CONSTRUCTION, BY INDUSTRY GROUP AND INDUSTRY, 1961

(Value of expenditures in ₱1,000)													
Code	Industry Group and Industry	Number of establishments	Total expenditures	Expenditures for new fixed assets					Expenditures for used fixed assets				
				Total	Buildings and Structures	Machine-ry and other equipment	Transport equipment	Other fixed assets	Total	Land	Buildings and Structures	Machine-ry and other equipment	Transport equipment
	<b>Large Establishments</b>	<b>261</b>	<b>11,118</b>	<b>4,670</b>	<b>1,446</b>	<b>2,264</b>	<b>324</b>	<b>356</b>	<b>6,448</b>	<b>320</b>	<b>1,324</b>	<b>3,510</b>	<b>614</b>
411	General building construction (residential, commercial, industrial, institutional)	160	7,141	1,130	1,167	1,358	421	182	4,011	117	1,237	1,286	471
412	Heavy construction	26	1,248	1,180	209	805	22	124	2,068	413	217	1,241	58
4121	Highway, Street and related construction	23	1,404	315	162	141	-	12	1,089	363	171	507	27
4122	Heavy construction such as sewers, water mains, roadbeds, railroads, piers, tunnels, bridges, viaducts, dams, drainage projects, sanitation projects, hydro-electric plants, water power projects, pipelines, and all other related construction	19	1,234	544	43	463	22	16	690	49	42	554	28
4123	Marine, harbor and waterway construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation, and construction of harbors)	10	96	18	-	18	-	-	78	1	-	77	-
4124	Construction of airports, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines, and telegraph wires	4	514	303	4	203	-	96	210	-	4	203	2
415	Special trade contractor	45	772	360	70	181	72	20	362	-	70	183	55
4191	Plumbing, airconditioning, elevator and escalator contractor	9	22	11	-	1	7	3	11	-	-	1	7
4192	Electrical work (at site of construction) contractor	26	416	204	70	44	69	21	212	-	70	45	75
4193	Water well drilling and water pump installation contractor	3	291	145	-	136	3	6	146	-	-	137	3
4194	Terrazzo tile, marble and mosaic work contractor	7	D	D	D	D	D	D	D	D	D	D	D
4195	Painting, and decorating contractor												
4199	Other trade contractor, n.e.c.												

D - Withheld or combined with other industry groups or geographic areas to avoid disclosure of individual establishment information.

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, *Economic Census of the Philippines, 1961, Construction, Volume IV*.

Table XVII.13—COST OF CONSTRUCTION MATERIALS CONSUMED BY CONSTRUCTION ESTABLISHMENTS  
BY INDUSTRIAL GROUP AND INDUSTRY 1961

Cost of Construction Materials (Cost in thousand pesos)																
Code	Size of Establishment and Industry	Number of establishments	Total cost	Lumber	Timber	Plywood, veneer and wall-board	Cement	Steel for reinforcement	Gravel, sand and stone, etc.	Bricks and tiles	Roofing sheets, corrugated iron, etc.	Electrical fixtures	Plumbing and pipe	Asphalt, malleable, and other waterproofing materials	Other materials	
411	Large Establishments	261	25,697	6,243	718	1,952	7,480	8,891	2,917	4,116	1,486	1,635	2,924	1,929	1,415	6,403
411	General building construction (residential, commercial, industrial, institutional)	160	23,814	5,772	632	1,802	5,261	7,546	2,333	2,522	1,278	1,632	1,647	1,527	631	3,715
412	Heavy Construction	56	8,828	504	265	35	2,148	1,285	660	1,538	95	51	287	232	502	1,378
4121	Highway, street, and related construction	23	4,080	237	166	7	975	300	186	802	33	27	32	58	409	777
4122	Heavy construction such as sewers, water mains, roads, bridges, viaducts, dams, drainage projects, hydro-electric plants, water power projects, pipelines, and all other related heavy construction	39	3,098	182	49	21	762	613	254	478	32	37	89	144	90	279
4123	Marine, harbors and water construction (dredging, underwater, rock removal, pile driving, land drainage and reclamation, and construction of harbors)	10	521	42	69	1	21	63	11	26	26	-	148	18	1	95
4124	Construction of airports, athletic fields, golf courses, swimming pools, tennis courts, parking areas, communication systems such as telephone lines, and telegraph wires	4	1,206	57	-	3	368	228	6	232	4	17	17	12	2	247
413	Special trade contractor	45	7,344	40	-	27	70	60	124	23	12	31	300	140	278	1,308

Source: Department of Commerce and Industry, Bureau of the Census and Statistics, Economic Census of the Philippines: 1961, Construction, Volume IV.

[illegible]

Source: Bureau of the Census and Statistics, Economic Census of the Philippines, 1961; Construction, Volume IV

## GOVERNMENT AID TO HOUSING

In much the same manner that the head of the family takes the responsibility over his dependents, the government does as much for those who have much less in life. As an aid to homeless citizenry, the government has passed and enacted laws and measures for this group of people. Government corporations and agencies were commissioned to fill in this need especially those of the low-salaried employees. This section therefore, will enumerate the different government corporations which would answer to the much-needed help. The accomplishments of those offices would, in turn, speak out for their capacities to cater to the specifications bestowed by planners and policy-makers of the country especially for the intensification of the housing program.

The People's Homesite Corporation was incorporated by the National Development Company on October 14, 1938. Subsequently on June 16, 1941 the National Assembly, by Commonwealth Act 648, created a non-stock Corporation called the National Housing Commission, which was actually organized on September 17, 1945. Then President Sergio Osmeña, Sr. constituted a Governing Council for the Commission. On its 1st meeting on September 29, 1945 one of the policies adopted by the Council and approved by the President on October 17, 1945, was the merger of the People's Homesite Corporation and the National Housing Commission. On October 4, 1947, the late President Manuel Roxas created the People's Homesite and Housing Corporation, by merging the top agencies under Executive Order No. 93.

### Completed Projects on Low-Cost Housing

Projects 1, 2, 3, 4-A and 4-B, 5, 6, and X-6, 7, and X-7, 8-A and 8-B, 9, 12, 13, 14, and 16,<sup>1</sup> were the completed low-cost housing projects. As of the end of 1970, the PHHC has constructed a total of fourteen (14)<sup>2</sup> housing projects located in Manila, Quezon City, Tagaytay City Caloocan City and Visayas (in Tacloban, Iloilo, Bacolod and Roxas Cities) with a total of 10,860 dwelling units and aggregating a total of 531.8 hectares. The Quirino District at Quezon City comprising Projects 2, 3, 4-A and 4-B is the biggest among the projects, occupying 165.4 hectares of land and containing a total of 5,363 dwelling units. This is followed by Project 6 and X-6 in Bagong Pag-asa, Quezon City which occupies 65.6 hectares and contains 1,301 dwelling units. The occupancy status of the above projects are shown in Table XVII.15. Units built during Fiscal Year 1969-1970 totalled to 12,567 in which 8,588 or 68.3 per cent were sold at the start of the said FY with Projects 4A and 4B topping the list with 2,792 units sold followed by Project 2 with 1,094 units.

Table XVII.15 - TENANCY STATUS OF PEOPLE'S HOMESITE AND HOUSING CORPORATION PROJECTS: FY 1969-1970

	Total	1	2	3	4-A,B	5	6-X6	7-X7	8-A,B	9	11	12	13	14	16	Old Villas	DPV Villas	Tenant Ft.	
																		Punta	Monifacio
Units Built	12,567	1,014	1,104	1,220	1,032	490	1,111	1,017	421	63	126	175	214	106	250	162	252	672	672
<u>Status, Start of</u>																			
<u>Fiscal Year</u>																			
Unit Sold	8,588	1,013	1,094	1,066	2,792	-	1,010	628	329	24	125	-	234	-	223	-	-	-	-
Used by PHHC	23	-	-	-	-	4	-	2	1	1	1	2	-	1	-	-	1	4	6
Vacant	49	-	-	-	-	-	-	-	-	7	-	-	-	3	27	-	-	-	12
Leased	3,707	1	10	174	117	76	231	397	21	31	69	273	-	192	-	162	251	668	654
<u>Changes during FY:</u>																			
Unit Sold	542	1	10	100	170	-	69	125	8	7	12	14	-	19	7	-	-	-	-
<u>Status End FY:</u>																			
Unit Sold	9,130	1,014	1,104	1,166	2,962	-	1,079	753	407	31	137	14	234	19	230	-	-	-	-
Used by PHHC	17	-	-	-	-	4	-	-	-	1	-	-	-	-	-	-	2	4	4
Vacant	24	-	-	-	-	-	-	-	-	2	-	-	-	-	20	-	-	-	2
Leased	3,796	-	-	74	77	476	222	262	14	20	58	261	-	177	-	162	250	668	666

Source: PHHC Annual Report FY 1969-1970

<sup>1</sup> Partially completed.

<sup>2</sup> Excluding the Kamuning Housing Project (1940-41) PWDC Housing Project (1946-47) and North Avenue Tenement (1967).

At the end of the year under review, the units sold reached 9,130 or 72.6 per cent of the total units built. Of these, 17 were used by PHHC, 24 were vacant and 3,396 were leased.

Physical maintenance of these buildings is not very significant since most of the tenants in the regular housing projects have already signed their contract of sale thus removing building repairs from the responsibility of the PHHC. Home visits were also made for the purpose of checking illegal occupancy/constructions and increasing collections. Since the implementation of Republic Act 3802, which provides for the sale at cost to registered tenants of all PHHC dwelling units, rental income decreased considerably because there are more houses sold than rented. Income, therefore, has been changed from rental to sales income. Table XVII.16 shows the total sales made by the PHHC as of the end of 1970. A total of 542 dwelling units with lots were sold with an area of 119,357.11 sq. meters at a total cost of ₱3,229,237.00. This, in turn is broken down into ₱815,234.45 as sales price of lots and ₱2,414,002.55 for houses. Of all the low-cost housing projects, projects 4A and B has the biggest number of units with lots sold which is 170, or 31.4 percent.

Table XVII.16 - SALES OF PEOPLE'S HOMESITE AND HOUSING CORPORATION DWELLING UNITS WITH LOTS (BY PROJECTS): FY 1969-1970

Low Cost Housing Projects	No. of Units With Lots Sold	Area (Sq. M.)	Sales Price of		Total Sales
			Lots	Houses	
1	1	114.00	₱ 2,513.70	₱ 2,429.28	₱ 4,942.98
2	10	2,066.90	20,395.55	32,812.00	53,207.55
3	100	15,289.23	137,159.17	301,639.58	438,798.75
4 A & B	170	34,574.28	259,628.02	563,766.02	823,394.04
6	69	19,493.30	112,822.70	351,515.37	464,338.07
7 & X7	125	26,586.10	96,427.50	701,192.36	797,619.86
8	8	2,926.80	26,245.84	58,199.32	85,445.16
9	7	2,808.20	42,789.21	59,275.32	102,064.53
11	12	3,372.60	25,779.26	75,083.00	100,862.26
12	14	4,305.30	25,129.03	124,836.04	149,965.07
14	19	6,055.50	38,347.79	84,260.06	122,634.85
16	7	1,764.90	27,899.68	57,994.20	85,893.88
Total	542	119,357.11	815,234.45	2,414,002.55	3,229,237.00

Source: PHHC Annual Report - FY 1969-1970

### Other Housing Projects

Of the expected 562 housing units, about 250 units have been completed of the Zabarte Housing Project (Project 16). Three tenement building projects constructed by the Department of Public Works located in Vitas, Tondo; Punta, Sta. Ana and Fort Bonifacio, Rizal have been turned over to the PHHC. The apartments therein, have been awarded by lottery to applications previously processed by the Department of Social Welfare.

Corresponding plans have been prepared and/or completed on the following proposed housing projects being considered by the PHHC:

(a) PHHC Employee Housing Village (Liberty Farms) — A portion of the Liberty Farms Subdivisions was set aside for development into a housing project for employees of the PHHC. It is estimated to accommodate 783 two and three-bedroom types of dwelling units involving about ₱20.27 million.

(b) **Naga City Housing Project** — This proposed project contains an area of 31.8 hectares and is estimated to accommodate 758 dwelling units involving about ₱8.29 million when completed.

(c) **San Fernando Housing Project** — this project with an area of 25 hectares located in Pampanga is estimated to cost about ₱15.6 million and will accommodate about 640 dwelling units.

### Landed Estate

Pursuant to R.A. 3840, which provides for the transfer to the PHHC of all Land Tenure Administration functions with respect to expropriation of urban lands, the PHHC has acquired 5 landed estates. Other petitions for purchases of such estate have also been submitted to the President for approval. The PHHC also undertook construction and development of roads and maintenance and repair jobs in its various subdivisions and housing projects. During the FY 1969-1970 the PHHC derived a total income of ₱12,112.00 for building permit fees granted for the construction and/or improvement of buildings. Table XVII.17 shows the number of building permits issued for FY 1969-1970. People's Homesite and Housing Corporation issued a total number of 425 permits for Project 1 to 9 including Fort Bonifacio and Bagong Barangay. Of all the housing projects, 4A and 4B topped the number of permits released with a total of 130. For monthly issuance of permits, the month of March have the greatest number, followed by the months of January, July, November and June. The months of August and December have the least number of permits issued with only a total of 24 each. Variation was employed with regard to the issuance of permits as revealed in the same table.

Table XVII.17 - BUILDING PERMITS RELEASED: FY 1969-1970

Projects	Total	July 1969	Aug. 1969	Sept. 1969	Oct. 1969	Nov. 1969	Dec. 1969	Jan. 1970	Feb. 1970	Mar. 1970	Apr. 1970	May 1970	June 1970
I	32	1	1	3	4	4	4	2	4	3	2	0	4
II	66	5	6	2	2	3	2	9	5	11	2	7	8
III	59	5	2	7	4	4	4	6	9	2	2	7	7
IV (A&B)	130	12	8	10	10	8	11	17	11	15	12	8	9
VI	47	3	0	6	5	7	1	1	3	9	2	4	6
VII	56	5	1	10	5	10	1	3	5	3	4	4	5
VIII	12	1	1	0	1	1	1	2	0	1	3	1	0
IX	9	4	1	1	0	1	0	1	0	0	1	0	0
Fort Bonifacio and Bagong Barangay	14	4	4	4	1	1	0	0	0	0	0	0	0
Total	425	40	24	43	32	39	24	41	37	44	32	31	38

Source: PHHC Annual Report - FY 1969-1970

### Sales of lots

During FY 1969-1970 the corporation sold on installment basis, a total of 775 lots in its various subdivisions; resettlement projects aggregating a total area of 220,995.4 hectares for a total cost of ₱3,143,559.03. This brings to 15,431 the total number of lots sold by the corporation since 1940.

### Undeveloped Landed Estates

The PHHC has seven undeveloped landed estates of varying sizes.

1) **Parañaque Property** — This 130.93-hectare property which is about a kilometer west of Km. 16 of South Super Highway or 8.5 kilometers from E. de los Santos Avenue, was reduced to 25.93 hectares in view of subsequent sales of 105 hectares.



2) **Liberty Farms** — A portion of this property located in San Jose del monte, Bulacan with an area of 40.7 hectares was set aside for development as PHHC Employees Housing Village. The area was subdivided into 783 residential lots and 18 commercial-industrial lots. As a result of a raffle held to determine who among the applicants should be awarded the lots, 496 lots were awarded to PHHC employee-applicants who qualified in accordance with existing rules and regulations, 287 were sold to the public and 16 were left pending approval by the Board.

3) **Dasmariñas Property** — The PHHC purchased this property in Cavite with an area of 2,340,797 square meters for the purpose of relocating deserving squatters south of Manila. However, due to lack of funds, it has not yet been developed. Portions of the property are planted with palay and the PHHC gets 30 percent of the agricultural proceeds.

4) **Carmona Property** — This was purchased by the PHHC as a relocation site for squatters. It has an area of 4,111,845.0 square meters. In 1968, the office of Presidential Assistant on Housing, with the assistance of the PHHC and the coordination of other agencies of the government, relocated a total of 213 families who were evicted from the National Park (East Triangle), Quezon City by the Quezon City government.

5) **Metrico property** — This was purchased on August 9, 1967 for ₱72,000.00. Due to a boundary dispute, the development of the property was suspended but was resumed during the FY 1969-1970. It has been approved by the PHHC Board that the subdivision lots be awarded to the National Bureau of Investigation personnel but there is a request by the NBI Director for the reduction of the price of the lots which is still pending consideration by the PHHC Board of Directors.

6) **San Fernando property** — 25 hectares of this 100-hectare property in Pampanga which was acquired by the PHHC in 1957 for ₱1,600,000.00 has been earmarked for a housing project and the rest has been leased for agricultural purposes. On May 28, 1970, upon recommendation of the PHHC Management for the sale of the whole property because of tight financial position, the Board of Directors gave Management the authority to advertise the sale of said property through public bidding in order to meet its obligations to qualified retireable officials and to generate funds for the development of its other projects.

7) **Naga Property** — This property containing 318,664 square meters was acquired by the PHHC in 1952 for ₱220,000.00. Plans for a housing project consisting of 758 one-storey houses estimated to cost around ₱8.6 million have been prepared by the Corporation.

### THE SOCIAL SECURITY SYSTEM

A non-stock and non-profit government-managed institution, the Social Security System is charged with implementing the Social Security Law. As one of the financial organizations actively participating in our national development efforts, the SSS operates on the basis of social adequacy.

According to the Social Security Act as amended, the System may invest its funds in interest-bearing (deposits in domestic banks designated for this) bonds, or securities of the government or in other specific areas or projects which shall redound to the benefit of the system and its members. Another provision also states "to acquire, receive, or hold, by way of purchase, expropriation, or otherwise, public or private property for the purpose of undertaking housing projects preferably for the benefit of low-salaried employee members . . ." So, as part of the System's investment program, the grant of housing loans to qualified members is a major activity. Housing loans are either directly given the System or given through arrangements whereby the Home Financing Commission guarantees the indebtedness. The releases on housing loans reflect the policy of the SSS to finance a massive low-cost housing program that is designed to bring home ownership within the reach of low-income groups under easier terms of payments. Mass production of low-cost housing units is expected to pave the way for a reorientation of the Filipino attitude toward individuality in housing.

The greatest bulk of the System's investment goes to housing. As a result, in 1970, real estate housing recorded ₱449,643,376 or 41 percent of the total ₱1,085,480,165 investment. These figures had a 10 percent increment over that of the previous year of ₱361,374,248 out of the total investment of ₱919,717,155. Looking at Table XVII.18 will give the comparative housing portfolios in 1970 and 1969.

The biggest amounts to be released were direct loans of ₱269,307,402, or 58.89 per cent of the total investments for housing. This amount was greater by ₱19,806,224 or 7.93 per cent over that of 1969 which recorded ₱249,501,196 or 69.04 of the total investment. However, as far as per cent distribution is concerned, that for direct loans decreased by 10.15 per cent for 1970 in favor of HFC guaranteed loans which was 22.97 percent of the total investment for housing.

On the same year (1970), the SSS approved 2,585 direct housing loans, 1,046 of them as additional loans to help rehabilitate homes of typhoon victims, continued the support for employer and HFC-guaranteed housing, helped finance the National Housing Corporation which was to start on the early part of the preceding year (1971) to produce prefabricated components at the rate of 1,000 units a month, and finalized the plans for the proposed self-contained new town in Montalban, Rizal which will contain some 16,000 low-cost units when completed.

**Table XVII.18.—DISTRIBUTION OF SOCIAL SECURITY INVESTMENTS FOR HOUSING, 1969-70**

	1 9 7 0		1 9 6 9	
	Pesos	Percent	Percent	Percent
Direct loans	₱ 269,307,420	58.89	₱ 249,501,196	69.04
Apartment loans	34,939,950	7.77	38,420,324	10.63
Employer loans	14,214,464	3.16	13,234,699	3.66
HFC guaranteed	103,275,344	22.97	42,454,841	11.75
Land/development	10,063,118	2.24	9,959,250	2.76
NH Corp. stocks	17,803,438	3.96	7,764,766	2.15
Foreclosed mortgages	39,642	.01	39,172	.01
<b>TOTAL</b>	<b>₱ 449,643,376</b>	<b>100.00</b>	<b>₱ 361,374,248</b>	<b>100.00</b>

Source: Social Security System, Real Estate Department

### THE GOVERNMENT SERVICE INSURANCE SYSTEM

The objective for which the system was created . . . "the promotion of the efficiency and welfare of the employee of the government", makes it a national institution that has always done its best to help the government in the multifarious duties of providing for the social improvement and economic security and stability of the country thereby, assuring the contentment of the lowly government employees. Through the years, therefore, it poured all its energies and resources into operations and activities that would lend to the early attainment of this goal. The effects of these operations and activities, pursued with such a single-mindedness of purpose, have been very beneficial.

One of the more important GSIS operations that has created considerable economic activity in the provinces is the real estate mortgage loan. The System now extends real estate mortgage loans to members wherever they may be residing — including third class municipalities. These loans involve not hundreds but thousands of pesos. By the financing standards of so many towns in the country, such amounts are considered enormous. These serve as catalyzers that invariably create minor "booms" in these otherwise "sleepy" towns.

Another important GSIS operation that has contributed much to the stepped-up tempo of economic activity in the provinces is the development of huge tracts of idle land into housing subdivisions. These projects to provide homes for members and non-members of the System are either administered or financed by the GSIS. The progress attained by the System in this particular operation was most pronounced in the development of the GSIS Village in Quezon City and the low-cost housing project in Rizal province. At the start of FY 1964-1965, the System

had constructed 2 concrete bridges over the creek running through the Village. The houses started going up fast and by the middle of the same year, 150 single housing units were constructed and made ready for occupancy. These were turned over to the tenants who had won their rights of ownership in a lottery held the year before.

Of the planned 3,232 housing units to be constructed in the low-cost housing project developed in the 25-kilometer long strip of land formerly traversed by the railroad line that used to connect Montalban and Pasig, Rizal, more than a thousand units have been finished and awarded to tenants. On this site, however, are a number of squatter-families who, having been previously relocated to the area, have already constructed their own houses. Many of these houses are of concrete and strong materials and some lie astride the boundary lines of the subdivided lots. To avoid unnecessary expenses and expensive court litigations, the System has decided to award the lots to the tenants actually occupying them. Some of the illegally constructed houses, however, have been modified or relocated to conform with the subdivision's plans, the expenses of which were shouldered by the said families.

The GSIS has also started developing two other big tracts of land into housing projects. These are the GSIS Heights in Matina, Davao City and the Maligaya Village in Quezon City. The GSIS Heights is a 60-hectare tract of land on which the System will construct 1,071 two and three-bedroom housing units at an estimate aggregate cost of ₱14,866,200.00. The Maligaya Village will be constructed on a 20-hectare tract of land known as the Payatas Estate in Quezon City which was acquired from the PHHC as partial payment of that firm's obligations with the System. Like the other project studies as of 1970 — Buenavista Estate in Baguio City, and the Alegre-Guzman Estate in Trece Martires, Cavite, the Payatas Property is under preparation for approval by the Board of Trustees. On the planning board also is the proposed development of the Palos Verdes subdivision in Novaliches, Quezon City.

The GSIS also engage in the different fields of investments. As in previous years, loans constituted the major part of the System's investment portfolio. This consists of salary and policy loans for members of the System, and real estate mortgage loans availed of by the same policyholders and by public and private corporations, local governments and individual citizens all over the country.

Significantly, of all the other investment and financing outlets of the System, the real estate loan has always occupied the top position. As shown in the table below, real estate loan during FY 1969-70 reached an unprecedented record of ₱1,005,669,599.93 or 68.3 percent of total outstanding loan grants of ₱1,460,887,650.86. Compared with the previous years' total of ₱1,260,854,036.91 and with the sum of ₱859,591,538.52 for real estate loans having a percentage of 68.1 of the aggregate loan investment, the amount is ₱200,033,613.05 or 15.86 percent greater. The almost ₱1.5 billion real estate loans granted reflects the huge financial aid provided by the System not only for home construction purpose but also for the expansion and growth of the business community. Together with the System's various housing projects for low and middle-income brackets, this home construction business had indeed contributed a great deal to the solution of the country's housing problem.

Outstanding Loan Investments	1969-1970	1968-1969
Salary Loan	₱ 298,887,797.30	₱ 269,871,090.87
Policy Loan	156,330,253.63	131,391,407.52
Real Estate Loans	1,005,669,599.93	859,591,538.52
TOTAL	₱ 1,460,887,650.86	₱ 1,260,854,036.91

Source: Government Service Insurance System, 1970 Annual Report.

A combined project of the GSIS and the SSS for low-cost housing is the Moonwalk Housing Project which is located at the junction of Las Piñas, Rizal and Bacoor, Cavite. The site is reached through Las Piñas-Alabang National Road. The total area of the project is estimated to accommodate 20,000 houses at an average of seven members per family. In accordance

with the present housing program, the Government Service Insurance System liberalized its policies on housing loans for its low income members by granting housing loans equivalent to the total cost of house and lot. For the programmed 20,000 housing units that will be constructed over the 4,000 hectare project the Social Security System has earmarked and appropriated a total of ₱260 million for 16,000 housing units while the Government Service Insurance System has earned and appropriated ₱90 million for 4,000 housing units which shall be extended as housing loans to its members.

## HOUSING

The size of the population and its age distribution, birth rates and death rates — all these will continue to affect the country's economy. It will mean higher taxes to support the country's social program, more school drop-outs and other related problems. It will also mean providing more houses for the growing population. According to the report of the Presidential Housing and Resettlement agency, housing situation has reached alarming proportions. A survey conducted on squatter families showed that 30 percent of the squatter and slum dwellings represent 54,000 families comprising 274,000 individuals. In addition, studies made in 1969 showed that the rate of construction in the country is two dwellings per thousand population as compared to 12 per thousand needed annually to cover the fast accumulating backlog, replace dwellings destroyed by obsolescence and calamities, and meet the needs of population growth.

In line with the situation, there was a continuing clamor for the creation of a Department of Housing and Urban Development. The National Housing Council, together with the other proponents of the bill, argue that the creation of the said Department becomes more urgent when the following circumstances are considered:

- 1) The housing need of the Philippines runs to about twelve new dwelling units every year for every one thousand population; government construction and financing account for less than eight thousand dwellings yearly (the equivalent of one eighth of one dwelling for every one thousand population):
- 2) The ever-widening gap between housing needs and home production is in direct proportion to the growth of slum and squatter colonies — a problem which calls for the added effort and expense of squatter resettlement; and
- 3) Although 70 percent of our population can not afford to pay for decent homes without receiving varying degree of government assistance, only a handful of government-owned or controlled corporations have been assisting these groups of people. As such, an integration of the agencies into a single entity responsible for meeting the demands for which it was created should give support and provision for housing in its budget.

### Housing Statistics

The nature of housing in the country can be gauged through the tabular presentations in this section. Selected tables of statistics are taken from the 1960 and 1970 censuses of population and housing.

Table XVII.19 shows the number of buildings containing one or more households by type and by province for the year 1970. These different types of building are as follows: single, duplex, apartment, accessoria, barong-barong, commercial, industrial, agricultural, institutional and others. The table showing 1960 data has almost the same classification, only, the 1960 census covers dwelling units instead of building alone. As such, they are not comparable for a building may contain one or more dwelling units.

In the year 1970 a total of 5,186,873 buildings were constructed in which 4,608,393 or 88.8 percent accounted for the single type, followed by the barong-barong with a total of 389,873 or 7.5 percent. This was in turn, followed by the duplex type with 80,808 or 1.5 per cent of the buildings constructed.

Single types of building made Cebu top the list with a total of 242,224 or 91.1 percent of the total number of buildings for the same province. Negros Occidental had the highest number of duplex buildings amounting to 5,246, or 2.9 percent. The top-grosser for the barong-barong list was Cotabato with 30,360 or 17.4 percent of the total for the province.

Table XVII.19 - NUMBER OF BUILDING CONTAINING ONE OR MORE HOUSEHOLDS, BY TYPE AND PROVINCE: 1970

Province	Total	Type of Building								
		Single	Duplex	Apartment/ Accessoria	Barong-barong	Commercial	Industrial	Agricultural	Institutional	Others
<b>Total</b>	<b>5,186,873</b>	<b>4,608,393</b>	<b>80,808</b>	<b>76,484</b>	<b>389,873</b>	<b>27,164</b>	<b>1,240</b>	<b>2,244</b>	<b>628</b>	<b>39</b>
Abra	24,294	23,645	61	-	568	20	-	-	-	-
Agusan del Norte	43,560	36,956	2,196	820	3,179	388	-	21	-	-
Agusan del Sur	27,969	24,572	462	487	2,114	876	19	19	-	20
Aklan	46,257	44,178	745	62	1,094	157	-	21	-	-
Albay	108,414	95,195	1,545	333	10,730	506	65	40	-	-
Antique	49,949	48,342	307	17	1,229	54	-	-	-	-
Bataan	31,433	29,423	648	119	1,110	87	-	21	25	-
Batanes	2,210	2,169	22	-	19	-	-	-	-	-
Batangas	151,005	143,288	1,571	401	5,473	213	59	-	-	-
Benguet	35,986	28,677	1,208	4,745	1,145	158	-	19	34	-
Bolhol	119,185	113,615	1,064	240	3,789	477	-	-	-	-
Bukidnon	66,115	56,502	1,572	375	6,926	622	62	39	17	-
Bulacan	129,564	120,630	2,682	2,727	2,769	652	18	63	23	-
Cagayan	96,190	90,800	527	197	4,238	369	21	20	18	-
Camarines Norte	38,068	29,396	561	331	7,337	421	22	-	-	-
Camarines Sur	150,605	126,772	1,963	1,317	19,079	1,261	37	159	17	-
Canigui	8,107	7,807	-	40	173	87	-	-	-	-
Capiz	63,160	59,230	741	100	2,967	64	22	36	-	-
Catanduanes	24,860	23,055	180	-	1,425	200	-	-	-	-
Cavite	72,104	66,329	1,203	1,010	3,201	340	-	21	-	-
Cebu	265,800	242,224	3,228	3,380	15,485	1,406	38	-	39	-
Cotabato	173,869	138,605	1,964	1,557	30,360	1,150	117	98	18	-
Davao del Norte	69,291	53,068	1,357	1,630	6,293	793	-	150	-	-
Davao del Sur	106,419	88,187	2,706	1,952	12,735	731	18	69	21	-
Davao Oriental	40,373	33,204	1,105	428	5,285	351	-	-	-	-
Eastern Samar	42,018	37,733	651	107	3,441	86	-	-	-	-
Iligao	19,589	18,783	95	21	468	22	-	-	-	-
Iloos Norte	57,931	56,451	396	100	945	39	-	-	-	-
Iloos Sur	68,603	66,031	568	193	1,609	143	18	22	19	-
Iloilo	190,508	178,696	2,262	1,237	7,286	966	20	41	-	-
Isabela	103,246	93,013	1,229	564	7,790	511	77	62	-	-
Kalinga-Apayao	23,075	21,146	127	30	1,660	112	-	-	-	-
La Union	61,437	58,109	624	96	2,364	244	-	-	-	-
Laguna	101,238	88,914	3,070	2,077	6,395	700	20	62	-	-
Ilanos del Norte	56,446	51,428	882	524	3,338	234	80	-	20	-
Ilanos del Sur	72,559	62,734	2,239	3,333	4,072	121	18	19	23	-
Leyte	183,013	156,027	2,376	1,090	22,624	780	-	74	42	-
Manila	28,910	13,864	953	10,996	2,224	853	-	-	20	-
Marinduque	24,257	23,205	237	158	599	58	-	-	-	-
Masbate	85,340	63,413	418	173	18,751	566	-	19	-	-
Misamis Occidental	49,963	47,200	535	164	1,649	393	-	-	-	-
Misamis Oriental	69,595	60,846	1,363	1,333	5,140	634	60	-	19	-
Mountain Province	18,731	17,901	217	173	418	22	-	-	-	-
Negros Occidental	176,951	158,125	5,246	1,575	11,423	459	-	60	63	-
Negros Oriental	122,159	113,266	1,429	665	6,198	601	-	-	-	-
Northern Samar	50,520	43,908	484	202	5,780	126	20	-	-	-
Nueva Ecija	128,571	121,055	1,266	376	5,224	613	-	19	18	-
Nueva Vizcaya	36,581	32,301	315	219	3,373	355	-	-	18	-
Occidental Mindoro	24,074	22,384	207	114	1,194	155	-	20	-	-
Oriental Mindoro	54,383	47,863	459	388	5,346	287	19	21	-	-
Palawan	42,243	32,879	383	369	8,156	322	89	24	21	-
Pampanga	122,602	114,178	3,572	1,924	2,532	338	39	19	-	-
Pangasinan	233,987	222,668	1,632	1,392	7,580	573	60	40	42	-
Quezon	153,936	131,277	2,045	1,065	18,774	717	41	17	-	-
Rizal	56,972	37,732	3,401	13,222	1,957	660	-	-	-	-
Romblon	27,606	25,054	240	19	2,197	77	-	19	-	-
Sorsogon	64,110	56,008	554	119	7,082	326	-	21	-	-
South Cotabato	75,886	66,006	1,630	916	6,076	1,019	61	178	-	-
Southern Leyte	42,271	39,344	509	146	1,964	289	-	-	-	19
Sulu	66,210	51,101	583	869	13,945	222	-	90	-	-
Surigao del Norte	39,966	35,152	699	389	3,502	206	-	18	-	-
Surigao del Sur	44,368	36,661	480	639	5,861	411	-	316	-	-
Tarlac	80,319	75,104	839	407	3,617	314	38	-	-	-
Western Samar	73,051	63,946	882	99	7,864	147	45	-	68	-
Zambales	51,876	42,057	2,152	5,427	1,752	451	37	-	-	-
Zamboanga del Norte	66,259	59,308	935	113	5,434	350	20	99	-	-
Zamboanga del Sur	159,126	139,653	3,006	1,793	13,546	879	40	188	21	-

Source: Department of Commerce and Industry, Bureau of the Census and Statistics: Advance Report on 1970 Census on Population and Housing.

Table XVII.20 presents statistics for the year 1960 based on the number of dwelling units classified by the type of building in which they are located and not on the number of buildings for a particular area. The housing census showed that there were 4,790,954 dwelling units enumerated, 85.2 percent of which goes to single types of buildings and the remaining 14.8 percent distributed to the other types. Cebu accounted for 254,560 or 5.4 percent of the single types of buildings, followed by that of Rizal with an amount of 228,246, 4.7 percent.

The single types of buildings had 224,034 dwelling units for Cebu which lodged in first place. Negros Occidental turned in 190,991 dwelling units or 86.5 percent of the total for the province to stay in second position.

The 12,120 duplex type of dwelling units, or 5.3 percent made the thickly populated province of Rizal start the list. Trailing in second was Manila with 5,414, or 3 percent. Manila, grossing in 35,146 and 3,842 dwelling units for the accessoria and apartment types, respectively outnumbered the other places in the country. Notably, no accessoria were reported in Abra, Batanes and Romblon. The province of Samar lorded over the barong-barong type with 35,890 dwelling units which is 22.2 percent of the total in the province.

Table XVII.20—DWELLING UNITS BY TYPE OF BUILDING AND BY PROVINCE 1960

Province	Total	Types of Building						
		Single	Duplex	Accessoria	Apartment	Barong-barong	Commercial	Others
<b>Total</b>	<b>4,790,954</b>	<b>4,081,546</b>	<b>51,144</b>	<b>81,993</b>	<b>11,455</b>	<b>515,896</b>	<b>36,420</b>	<b>6,350</b>
Abra	22,465	22,374	12	—	—	36	40	3
Agusan	47,701	40,083	1,134	728	89	4,678	938	51
Aklan	42,615	40,162	28	9	—	2,444	261	11
Albay	87,470	72,673	382	166	34	13,465	701	49
Antique	45,196	43,525	38	3	—	1,554	61	13
Bataan	24,120	21,707	46	71	3	2,153	128	12
Batanes	2,164	2,154	1	—	—	5	—	1
Batangas	123,962	115,203	726	310	17	6,928	577	151
Bhohol	112,422	103,983	522	29	18	7,310	506	34
Bukidnon	35,396	29,734	642	659	28	3,711	445	37
Bulacan	97,099	92,796	368	299	14	2,790	696	136
Cagayan	84,388	75,066	258	55	3	8,363	569	74
Camarines Norte	31,966	21,901	424	319	42	8,751	306	23
Camarines Sur	131,663	100,853	650	386	9	28,337	1,354	74
Capiz	96,800	92,777	200	118	19	3,491	177	18
Catanduanes	25,038	19,646	104	54	3	4,833	392	6
Cavite	65,602	60,809	438	239	26	3,434	654	22
Cebu	254,560	224,034	1,082	1,577	85	25,465	1,984	333
Cotabato	176,912	138,116	866	735	34	33,277	1,526	138
Davao	158,316	120,348	3,476	3,643	57	28,689	2,094	209
Iloilo	57,453	55,747	92	43	—	1,321	180	70
Iloilo Sur	64,446	62,634	238	47	7	1,286	132	102
Iloilo	167,449	153,233	1,600	771	27	11,228	854	94
Ispaña	79,063	66,448	432	73	—	11,585	796	131
La Union	53,516	51,516	206	264	14	1,474	175	9
Laos	86,125	74,550	1,568	739	53	6,465	683	67
Larao del Norte	50,151	40,703	980	581	95	7,346	531	45
Larao del Sur	65,719	52,132	1,196	5,809	164	3,615	153	50
Leyte	221,787	184,906	1,366	788	82	33,114	1,449	82
Manila	177,825	120,677	5,414	35,146	3,842	6,297	5,760	389
Marikina	21,170	19,713	32	12	—	1,209	182	22
Masbate	60,634	46,757	580	161	16	12,643	299	18
Misamis Oriental	43,246	37,113	906	371	12	3,860	444	40
Misamis Oriental	67,264	53,495	472	612	29	7,304	592	60
Muntal Province	96,550	81,940	844	3,719	3,346	6,496	151	64
Negros Occidental	220,756	190,991	2,998	2,439	268	22,667	1,318	75
Negros Oriental	110,407	93,443	472	449	40	12,758	772	473
Nueva Ecija	107,124	99,427	312	171	24	8,437	578	58
Nueva Vizcaya	25,949	23,536	64	24	—	1,421	92	12
Occidental Mindoro	15,714	13,583	96	14	9	1,313	90	4
Oriental Mindoro	41,793	39,036	124	129	3	3,118	302	21
Paisan	33,728	24,755	110	133	—	7,799	165	56
Pangasinan	96,769	89,148	598	462	25	7,523	736	77
Panay	169,492	144,128	536	365	77	12,213	1,105	128
Quezon	120,222	102,510	698	796	31	15,113	1,000	74
Rizal	228,246	183,040	12,120	18,034	2,203	9,418	2,178	313
Romblon	22,469	22,180	18	—	—	2,404	53	14
Samar	141,337	123,333	624	251	13	35,890	694	42
Sorsogon	59,510	45,943	190	72	13	6,463	419	10
Sulu	52,129	36,813	58	218	22	14,623	102	99
Surigao	67,716	56,931	618	280	26	9,794	555	14
Tarlac	74,204	67,275	180	318	29	6,010	452	30
Zambales	36,400	32,130	595	1,783	172	3,506	428	15
Zamboanga del Norte	47,150	42,705	154	221	15	5,790	344	15
Zamboanga del Sur	129,804	107,087	1,796	1,498	397	22,485	1,355	186

1/ Includes Agusan del Norte and Agusan del Sur.

2/ Includes South Cotabato.

3/ Includes Davao del Norte, Davao del Sur, and Davao Oriental.

4/ Includes Southern Leyte.

5/ Includes Camarines Islands.

6/ Includes Benguet, Ifugao and Kalinga-Apayao.

7/ Includes Eastern Samar, Western Samar and

Northern Samar.

8/ Includes Surigao del Norte and Surigao del Sur.

Source: Department of Commerce and Industry, Bureau of the Census and Statistics 1960 Census on Population and Housing.

### Classifications of Occupied Dwelling Units

All dwelling units were classified according to the kind of materials used in the construction of the building. The basis for this classification was the actual observation of the enumerator. However, for 1970, data collected refer to the buildings only. With a total of 5,186,873 buildings in 1970 as revealed in the Table below, buildings made of light materials proved to be dominating in this classification with 2,186,375 or 42.15 percent. Of these, almost four-fifths were concentrated in the rural areas having 1,956,672 buildings. Buildings of mixed construction materials or a combination of strong and light materials represented 1,255,817 or 24.21 per cent of all buildings, while the remaining 82,309 were made of other kinds of materials which do not fall under any of the above-mentioned classifications.

Kind of Construction Materials	1970	Per cent
<b>TOTAL</b>	<b>5,186,873</b>	<b>100.00</b>
Strong	1,662,372	32.05
Urban	607,929	11.73
Rural	1,054,443	20.32
Mixed	1,255,817	24.21
Urban	246,286	4.75
Rural	1,009,531	19.46
Light	2,186,375	42.15
Urban	229,703	4.43
Rural	1,956,672	37.72
Others	82,309	1.59
Urban	5,410	.11
Rural	76,899	1.58

Sources: Department of Commerce and Industry, Bureau of the Census & Statistics:  
Advance Report on 1970 Census of Population and Housing.

A total of 2,755,888 dwelling units enumerated in 1960 which represented 57.52 percent of all dwelling units of 4,790,954 were of light construction materials (see table below). Only 584,765 or 12.21 per cent of the total number of dwelling units were constructed of strong materials while mixed materials represented 30.24 percent of all dwelling units.

Kind of Construction Materials	1960	Per cent
<b>TOTAL</b>	<b>4,790,954</b>	<b>100.00</b>
Strong	584,765	12.21
Mixed	1,448,924	30.24
Light	2,755,888	57.52
Others	1,377	0.03

Sources: Department of Commerce and Industry, Bureau of the Census & Statistics:  
1960 Census of Population and Housing.

### Kind of Lighting, 1960

All occupied dwelling units are classified according to the different types of energy or fuel used for lighting such as electricity, kerosene, oil, etc. The table below shows the data for 1960. Of the 4,648,245 dwelling units enumerated, kerosene represents the greatest bulk of 3,806,907 or 81.88 per cent. This has been so far the reason that during that time, the electrification program has not yet reached most rural areas which has a widespread use of kerosene for light or for fuel. Electricity comes next with 765,935 or 16.49 percent of the total dwelling units.

Kinds of Lighting	1960	Per cent
<u>TOTAL</u>	<u>4,648,245</u>	<u>100.00</u>
Electricity	765,935	16.49
Kerosene	3,806,907	81.88
Oil	20,495	0.43
Others	54,908	1.19

Source: Department of Commerce and Industry, Bureau of the Census and Statistics:  
1960 Census of Population and Housing

### Source of Water Supply, 1960

Data on source of water supply relate to the number of families securing their water supply from a water pipe system, or an artesian well, or other sources of water supply, as rain-water, spring, river, surface well, lake, etc. In 1960, if a household gets its water from two or more sources throughout the year, the one counted is the source availed of during the greater part of the year. As can be gleaned from the table below 930,800 or 20 percent depended on piped water supply for 1960 and 1,070,869 dwelling units or 23.1 percent used the force pump. The open wells, which was predominantly used in the rural areas accounted for 1,464,581 or 31.5 percent of the total dwelling units.

Sources of Water Supply	1960	Per cent
<u>TOTAL</u>	<u>4,648,245</u>	<u>100.00</u>
Piped water	930,800	20.0
Artesian well	271,609	5.8
Force Pump	1,070,869	23.1
Open well	1,464,581	31.5
Spring	632,842	13.6
Rain Water	54,503	1.2
Others	223,041	4.8

Source: Department of Commerce and Industry, Bureau of the Census and Statistics:  
1960 Census of Population and Housing

### Type of Toilet Facilities, 1960

All occupied dwelling units are classified according to the type of toilet facilities used by the occupants. Of the over-all total of 4,648,245 dwelling units enumerated, the table below shows that almost one-half of 45 percent were reported as not utilizing toilet facilities. Still not affected by modern facilities, the rural areas cling to the open pit which comprises 1,664,573 or 35.81 percent of the total while that of the flush system represented a meager 353,721 or 7.61 percent total of the over-all total of toilet facilities used.

Type of Toilet Facility	1960	Per cent
<u>TOTAL</u>	<u>4,648,245</u>	<u>100.00</u>
Flush	353,721	7.61
Antipolo	429,498	9.24
Open Pit	1,664,573	35.81
Public Toilet	108,432	2.33
None	2,092,021	45.01

Source: Department of Commerce and Industry, Bureau of the Census and Statistics;  
1960 Census of Population and Housing



**Type of Cooking Fuel, 1960**

All occupied dwelling units are classified according to the kind of heat-generating substance used for cooking and these are electricity, kerosene, gas, wood, charcoal and others. The table below reveals that wood was found to be the kind of cooking fuel most used in the Philippines by 4,312,110 or 92.8 percent of the total 4,648,245 occupied dwelling units. Although wood was the most extensively utilized cooking fuel, charcoal, a by-product was the least consumed represented by 25,481, or 0.5 percent. Kerosene came out second with 151,348 or 3.3 percent while the modern cooking convenience, electricity was used by only 1.3 percent or 60,509 occupied dwelling units.

<b>Types of Cooking Fuel</b>	<b>1960</b>	<b>Per cent</b>
<b>TOTAL</b>	<b>4,648,245</b>	<b>100.00</b>
Electricity	60,509	1.3
Kerosene	151,348	3.3
Gas	53,067	1.1
Wood	4,312,110	92.8
Charcoal	25,481	0.5
Others	45,730	1.0

Source: Department of Commerce and Industry, Bureau of the Census and Statistics; 1960 Census of Population and Housing

## CHAPTER XVIII — LABOR

Employment growth is rather slow and is failing to keep pace with the growth of the labor force. Employment in 1969 was estimated to be eleven million as against an estimated labor force of twelve million, which suggests that about one million was unemployed. In addition, it was estimated that nearly one-fourth of those employed suffered from underemployment. This situation is not surprising for an economy that is basically agricultural like the Philippines.

### CONTRIBUTION OF WAGES TO THE NATIONAL INCOME<sup>1</sup>

In 1965 compensation for labor accounted for ₱10,405 million, representing 40.5 percent of the total gross national product of ₱25.7 billion of the Philippines.

The greatest bulk of compensation for labor was accounted for by the manufacturing sector comprising 59 industries which contributed ₱2.9 billion or 27.98 percent of the total, followed by agriculture, then forestry which contributed ₱2.6 billion, or 25.02 percent.

Among the agricultural sectors the greatest bulk of labor compensation was accounted for by palay and corn, with ₱682.9 million, or 6.56 percent of the total national wage income; followed by coconut (copra), ₱333.5 million, or 3.20 percent. Other agricultural sectors which contributed at least ₱100 million to the compensation of labor includes sugarcane with ₱195.8 million, or 1.88 percent; fruits and vegetables, ₱288.3 million, or 2.77 percent; livestock and poultry, ₱299.6 million, 2.88 percent.

Forestry contributed ₱333.4 million, or 3.21 percent; fishing ₱392.5 million, 3.77 percent; while mining accounted for a mere ₱134.8 million, or 1.29 percent.

Of the total contribution of 27.98 percent made by 59 manufacturing industries to the total compensation of labor, only grain mill products accounted for a sizable portion, contributing ₱355.6 million, or 3.42 percent, followed by other food products, ₱275.6 million or 2.65 percent. Other manufacturing sectors which contributed at least ₱100 million to the total compensation of labor include meat products with ₱141.7 million or 1.36 percent; bakery products, ₱118.7 million or 1.82 percent. The remaining 54 manufacturing industries together accounted for ₱1.8 billion, each representing less than 1 percent contribution to the total wage bill.

Among the service sectors, transportation and communications ranked first in contribution to the total wage income, accounting for ₱1.2 billion, or 11.13 percent, of which transportation accounts for ₱1.09 billion, or 10.52 percent, and communications, ₱63 million or 0.61 percent. Wholesale and retail trade followed, contributing ₱792 million, or 7.61 percent, and third public and private construction, accounting for ₱332.5 million, or 3.20 percent. Banking, insurance and real estate ranked fourth, with ₱315 million, or 3.03 percent.

On the other hand, households, and non-profit private institutions absorbed approximately ₱148.9 million, or 1.43 percent of the total wage income, while the government accounted for ₱15 billion, or 14.07 percent.

On the whole, intermediate sectors contributed approximately ₱8.8 billion, or 84.50 percent of the total wage income, while final demand sectors directly absorbed a wage bill of ₱1.6 billion, or 15.50 percent.

If industries were classified into three major sectors with agriculture, forestry, fishing and mining forming the primary industries, all manufactures as secondary industries, and all services as tertiary industries, the resulting distribution will be indicative of a somewhat clearer structure of the Philippine economy at the time. Thus the primary industries account for ₱2.7 billion, or 26.32 percent of the total payments to labor; manufactures, ₱2.9 billion, or 27.98 percent; and services (including final demand), ₱4.8 billion, or 45.70 percent.

<sup>1</sup> Derived from the 1965 Input-Output Transaction Table of the Philippine Economy prepared by the Central Research Division of the Bureau of the Census and Statistics.

Although the manufacturing industry accounted for the greatest bulk of the total returns for labor, with 27.98 percent, it employed only approximately 11.6 percent of the total labor force during the period. On the other hand, agriculture, fishing and forestry, which employed approximately 57.4 percent of the total labor force, accounted for only 25.02 percent of the total labor compensation, thus suggesting to some extent the type of economic structure prevailing then in the country. This reflects the fact that a high percentage of our labor force in agriculture is still poorly educated, largely unskilled, poorly housed, and has high incidence of disease and malnutrition arising from subsistence wage income. This shows the need for better education, training, and manpower development, as well as for incentives in order to make agricultural as well as industrial workers work more efficiently and contribute more effectively to the economy.

### PHILIPPINE LABOR POLICY

Philippine labor policy, is broadly defined in the Constitution of the Republic. It emanates from several constitutional mandates, such as:

- 1) The promotion of social justice to insure the well-being and economic security of all the people should be the concern of the State (Article II, Section 5).
- 2) The State shall afford protection to labor, especially to working women and minors, and shall regulate the relations between landowner and tenant, and between labor and capital in industry and in agriculture. The State may provide for compulsory arbitration. (Article XIII, Section 6).

The Bureau of Labor was created by Act No. 1863, enacted on June 10, 1908. The activities of labor during the American regime started the move to promote the welfare of workers. On December 8, 1933, Act No. 4121 raised the Bureau of Labor to cabinet status and has been known since then as the Department of Labor. This executive agency administers and enforces labor policy to this day.

The adoption of the Constitution in 1935 enlarged the scope of public policy on labor. Under the Commonwealth Government, the first established under the Constitution, several laws were passed: a statute creating a Court of Industrial Relations and adopting a policy of compulsory arbitration; another prescribing proceduring of registration and regulation of labor organizations; a law on industrial safety; and another governing tenancy contracts.

After the Philippines became independent in 1946, labor policy received significant new features — creating a dynamic policy adhering closely to liberal and democratic precepts.

The objectives of labor policy in the Philippines are:

1. To promote the adoption of the programs for the development and utilization of manpower;
2. To enhance living standards and working conditions;
3. To protect the right of the workers to self-organization;
4. To promote industrial peace through collective bargaining;
5. To protect workers and their heirs in cases of compensable death, injury, sickness or retirement;
6. To assist employers and employees in the formulation of cooperatives, mutual aid system, recreational and housing facilities; and finally;
7. To pursue, in general, such governmental programs and projects designed to assure the fullest life to workers in freedom and democracy, and enable them to participate effectively in the affairs of the community and the nation.

In the Four-Year Economic Program of the government for the fiscal years 1966 to 1970, the basic labor problems of the country are stated as follows:

1. Dualistic economy, two thirds of population is supported by the agricultural sector.
2. Population growth rate of 3.2 percent annually, one of the highest in the world.
3. Substantial and growing unemployment; about 12 percent of labor force including under-employed converted to equivalent number of fully unemployed.

The labor program of the Administration states that "objective of the labor program is the introduction of new functions consistent with the requirements of a developing industrial sector while maintaining traditional enforcement and conciliation services. Thus, the larger proportion of increments allocated to the labor budget will be spent in the creation of five additional employment offices in key labor market areas over a period of four years. Training activities of the Department of Labor will be currently limited to apprenticeship of workers and technicians badly needed by the economy. A Manpower Development Council will be created to coordinate these activities with those of other agencies."

The program directs integration of manpower training for industrial skills, such as:

1. **Skills training** — Manpower training for industrial and technical trades and occupations takes the form of government sponsored practical skills training and youth conservation, in addition to apprenticeship and other limited training schemes.
2. **Employment exchanges** — The Government assists labor mobility from geographical and industrial areas of demand. Facilities are set up for the establishment of labor exchanges in the defined labor market areas where non-agricultural employment is relatively dense.
3. **Employment of Filipino technicians** — The Government encourages employment of Filipino technicians to assist in social and economic development in foreign countries and to help broaden their outlook and productive efficiency. Methods and procedures applicable to the travel of desired workers to different countries are being simplified.

## Protection to Labor

Labor policy assures observance of fair working conditions prescribed by statutes, rules and regulations, such as those involving minimum wages, hours of work, industrial safety, special treatment of working women and minors, and free emergency medical and dental treatment. The aim is to assure the workers the minimum requirement of decent living.

Although the new policy has established parity between farm workers and non-agricultural labor in rights and privileges, compliance with labor laws among agricultural establishments merits thorough scrutiny. Labor laws designed to protect the workers are:

1. **Minimum wages** — Effective July 1, 1970, Republic Act No. 6129 was approved enforcing the payment of ₱8.00 daily wages for non-farm workers and ₱4.75 for farm workers. Payment of premium pay of not less than 25 percent in addition to regular wage rates for work in excess of eight hours and for work on Sundays and legal holidays is the required remuneration in nonpublic utilities.
2. **Industrial health and safety** — The Government affords workers the protection of the law requiring free emergency medical and dental treatment, and ensures obedience to rules and regulations prescribing the use of safety devices for workers. Safety campaigns are maintained to cope with the pace of industrialization. Employees are enjoined to adopt safety codes, programs and activities for the abatement of industrial accidents and conservation of skilled technical manpower in their firms as well as recreational facilities for their workers.
3. **Speedy disposition of claims** — Legislation is envisioned to re-invest the Labor Standards Commission with administrative (quasi-judicial) function to hear and adjudicate money claims cases filed by workers against their employers, to make possible speedy disposition of such cases with least expenses and delay to the parties.

4. **Operation of private employment agencies** — Close supervision is maintained over the operation of private employment agencies and recruiters in order to protect labor recruits.

5. **Indirect wage payments** — Indirect wage payment practices under the "sabo sacada" and other systems is discouraged while payment of wages is fostered. The feasibility of prescribing standard rates of payment for piece-work, needle work and other special cases merits continuing attention.

6. **Labor protection in foreign countries** — Filipinos working in foreign countries receive the protection of the Philippine Government through the Philippine foreign service and labor attaches therein.

7. **Insurance coverage campaigns** — Employers are encouraged to provide for insurance coverage for their workmen's compensation liability under the compulsory insurance requirements of the Workmen's Compensation Act in order to ensure speedy settlement of death, disability or sickness claims by workers in compensable cases. This employer liability is insured through a scheme allowing the employer to choose between self-insurance or through an insurance carrier.

8. **Social Security** — The Social Security System coverage, like the case of Workmen's Compensation, is made more universal and an intensified employer compliance of the law is being undertaken by the System. A general review of provisional requirements is being finalized to avoid under delay in servicing the members of the system. The System, to this end, is regionalizing its operations.

9. **Unemployment Insurance** — Through the Department of Labor and Social Security System, the economic feasibility of adopting an unemployment insurance system has received high priority especially for the defined labor market areas of the country, to guard against total loss of income among laid-off or separated workers.

10. **Public information and worker's education** — Much of the burden of labor law enforcement should be lightened with a well-informed working class aware of its duties and rights. Labor education has been confined for the last 12 years to the development of democratic trade union leadership under the Asian Labor Education Center of the University of the Philippines. The Department of Labor strives to broaden the base of knowledge through information campaigns, seminars, workshops and conferences among both unionist and non-unionists in the active labor force. Leadership in trade unions should receive better support from an informed membership. Facilities of the Department of Labor help workers in the remote areas to receive up-to-date information about the labor welfare program of the Government.

11. **Codification of labor laws** — The codification of labor and social legislation would simplify methods for improved enforcement standards. Efficacious management of public activities in labor predicate on a systematic arrangement of duties and functions among implementing agencies. The Department of Labor seeks early integration of labor policy into a Social Justice Code of the Philippines.

12. **Labor in the government service** — Government employment has been claimed immune to worker participation in the determination of salary and wage scales and civil servants performing public functions are generally, regarded disqualified from engaging in strikes. Nevertheless, the government service in the Philippines suffers from varying dislocation in pay rates and different laws. Some agencies pay their employees inferior salary fees.

Under the principle of "equal pay for work of equal value", labor policy seeks to ascertain the possibility of effecting upward adjustments in salary and wage structures in the government service consistent with the progressive demands of decent living.

## THE DEPARTMENT OF LABOR

The Department of Labor is the agency of the Philippine Government which enforces and administers public policy and statutes on labor. Its central headquarters consists of the Office of the Secretary, two offices and four bureaus, the latter rendering policy advice and consultative functions to the Secretary of Labor. Labor law enforcement and administration are entrusted to 12 regional offices with four sub-regional offices and provincial and local offices in the country, under the line supervision of the Secretary.

The Department of Labor was first created as a Bureau of Labor under Act 1868 of the Department of Commerce and Police. With the passage of Act No. 4007 on December 8, 1933, the Bureau was raised to the level of an executive department in the Philippine government.

Several legislations enlarged the Department of Labor through the creation of different specialized agencies and the following statutes created the corresponding agencies in the Department, as follows: a) Commonwealth Act No. 104, approved on October 29, 1936, created an Advisory Safety Council; b) Republic Act No. 602, approved on April 6, 1951, created a Wage Administration Service, forerunner of the present Bureau of Labor Standards; c) Republic Act No. 761, approved on June 20, 1952, created a National Employment Service Advisory Council, the former being now the Office of Manpower Services; d) Republic Act No. 772, approved on June 20, 1952, created a Workmen's Compensation, now the Bureau of Workmen's Compensation and Workmen Compensation Commission; and e) Republic Act No. 875, approved on June 18, 1953, created a Conciliation Service Registrar of Labor Relations and authorized creation of any Advisory Labor-Management Council.

The present organization of the Department of Labor is largely the work of the Government Survey and Reorganization Commission created under Republic Act No. 997, approved June 9, 1954. The reorganization of the Department was made effective by Reorganization Plan No. 20-A, which was implemented by Executive Order No. 218, dated December 10, 1956. After the reorganization, the Office of Apprenticeship and a National Apprenticeship Council were created under Republic Act No. 1826, approved on June 22, 1957, and amended by Republic Act No. 2628 on June 18, 1960; and a Women and Minors Bureau (now the Bureau of Women and Minors) was established under Republic Act No. 2714, approved on June 18, 1960.

The Secretary of Labor administers the affairs of the Department. He advises the President on policy promulgation and administration on labor, directs and coordinates the Government's labor services and activities, and promulgates rules calculated to carry out policy objectives. The Secretary in turn receives advice from different ad hoc advisory councils and boards, such as the Advisory Labor-Management Council and Advisory Safety Council. The Advisory Labor-Management Council composed of members drawn from the public-labor and management on the prevention and voluntary settlement of labor disputes.

The Secretary is assisted by an Undersecretary of Labor in the management of the administrative affairs of the Department. The Undersecretary sees to the implementation of administrative policies approved by the Secretary.

The Secretary and Undersecretary are served by a Head Executive Assistant (Assistant to the Secretary) who directs the Staff, Internal Labor Office Affairs Staff, Administrative Services, Internal Management Services, Labor Statistics Services and Special Operations Service.

The Legal Staff handles litigation of cases brought by the Department, provides legal counsel and interpretation on specific problems, assists in the preparation of proposed statutes, formulates rules and regulations on a review and consultative capacity. Internal Labor Office Affairs Staff makes recommendations to the Secretary for implementation by the Philippine government of ILO conventions and acts on matters related to labor programs and projects sponsored by the International Labor Organization. The Administrative Service provides administrative service on personnel and fiscal matters and takes charge of general house-keeping, while the Internal Management Service reviews and evaluates performance and efficiency of operating staff entities, recommends improved policies and procedures, and prepares annual and other periodic operational reports of the Department.

Labor Statistics Service gathers statistical data on labor, maintains a technical reference library for the Department, conducts economic research and issues the publications of the Department and the Special Operations Service inspects the books and records of financial transactions of labor organizations, give assistance to employers and workers in providing mutual benefit systems, cooperatives, housing, and other welfare facilities.

The Department of Labor has four other bureaus and two offices which render policy guidance and consultation services as bases for enforcement activities by the regional offices. The Bureaus under the Department are the Bureau of Labor Relations, Bureau of Labor Standards, Bureau of Workmen's Compensation and Bureau of Women and Minors while the offices are Office of Manpower Services and Office of Apprenticeship which perform services on manpower development and utilization.

The Bureau of Labor Relations is the registration and licensing agency for labor organizations and fosters collective bargaining as the principal vehicle between labor and management in the settlement of labor disputes. It provides mediation and conciliation facilities to prevent or settle strikes and lockouts and promotes voluntary arbitration as the final step in the processing of grievances and the administration of collective bargaining agreements. It supervises the conduct of representation elections among workers on orders by the Court of Industrial Relations, and files collective contracts between employers and unions.

The Bureau of Labor Standards initiates policy instructions, plans and programs and procedures in the enforcement of statutes relating to wages, hours of work, and health and safety of workers. It likewise provides technical assistance in the interpretation of laws designed to protect workers, issues learner's certificate and special rules and regulations in cases of piece work and other cases calling for the need to define fair labor standard.

The Labor Standard Commission, originally created as an intermediate review body with quasi-judicial functions over money claims cases, also performs quasi-legislative functions. In that capacity, it formulates rules and regulations to implement existing labor standards legislation.

The Bureau of Workmen's Compensation is the planning, policy making, consultative and advisory agency in the administration of the Workmen's Compensation Act. It promulgates rules and procedures governing the operation of regional offices on workmen's compensation and employers liability. Attached to the Bureau is Workmen's Compensation, which receives appeals from aggrieved parties in workmen's compensation cases heard by the regional offices. Its decisions on reviews are final and may be appealed to the Supreme Court only on questions of law.

The Bureau of Women and Minors is the agency charged with the functions of planning, policy making, advice and consultation on all matters affecting the employment of women and children while the Office of Manpower Services was created originally as the National Employment Service, renders vocational guidance, listing, counseling and placement services to applicants for employment; issues seamen's certificates and clears contracts for overseas employment of Filipino nationals; administers the Private Employment Agency Law; and through its pilot Manila Employment Office directly assists job applicants in seeking suitable work.

The Office of Apprenticeship is charged principally with the promotion of apprenticeship programs and the development of skills through registered apprenticeship standards, carried out through on-the-job training and related classroom instruction. The Office also acts as secretariat to the National Apprenticeship Council, a policy proposing body to the Secretary of Labor. For its regional and field operations the Department operates the Office of Field Operations and the Regional Offices. Line supervision and authority of the Secretary of Labor over the affairs of regional and local offices are carried out through an Office of Field Operations in the Office of the Secretary. This office coordinates the activities of regional, provincial and local offices, reviews their work, and issues policy directives to insure efficient implementation of labor laws.

The Department of Labor has twelve regional offices distributed in key centers of population throughout the Philippine archipelago. These regional offices directly implement and enforce the mandates of laws, rules and regulations for the protection of labor, such as wages, hours, and health and safety requirements; provide conciliation facilities in labor disputes within their area jurisdictions; hear and dispose of workmen's compensation cases, and in general carry out work plans of the Department regarding enforcement of labor laws. Under the regional offices, four sub-regional offices and about 50 provincial and local offices are dispersed in the cities and provinces.

Different problems exist in the present organization of the Department of Labor, such as the re-examination of fiscal policy to afford a higher share of public revenue of labor welfare, based on a consideration of geographical distribution and a labor force of 13 million workers as well as of recent enactment of labor standard laws to agricultural enterprises. The ₱6 million annual budget of the Department of Labor in 1968 is far too inadequate for the performance of its vital tasks. By conservative projection, the sum of ₱13 million (barely one peso each in the labor force) should approximate the minimum financial requirements to carry out the objectives of labor policy.

### **Related Government Agencies**

Two welfare institutions, the Government Service Insurance System (GSIS) and the Social Security System (SSS), provide for insurance and retirement protection to employees in the government and private sectors of the economy, respectively.

Labor cases fall within the competence of the Court of Industrial Relations composed of five judges who dispose of cases involving unfair labor practices, representation elections among workers, labor disputes in industries indispensable to the national interest when certified to the Court by the President of the Philippines and injunctions. Money claims are heard by the regular courts of justice and agricultural labor disputes are heard by the Court of Agrarian Relations. Non-agricultural cooperatives are encouraged through the Cooperatives Administration Office and farm cooperatives through the Agricultural Credit Administration.

The Court of Appeals is the review agency in cases of denial of registration or licensing of labor organizations, while the Supreme Court reviews questions of law and decisions of the Workmen's Compensation Commission and of the Secretary of Labor in issuing wage orders on recommendation of industry wage-boards.

### **Activities of the Department of Labor**

Several needs of labor are recognized by the Department of Labor. One is the need for legal aid for indigent workers filing their cases or claims in the courts after efforts towards administrative settlement have failed; and second, the need for labor prosecutors with authority to file and prosecute cases in the proper courts for violation of labor laws. The third is the need for receiving, investigating and adjudicating claims of works against employers. For these reasons, the following steps have been taken: (a) the Legal Aid function of the Department was reviewed and a bill creating the Public Defenders Office in the Department of Labor was introduced in Congress; (b) Department of Labor Attorneys were designated Special Prosecutors by the Department of Justice; (c) The Complaints and Action Unit was organized in the Office of the Secretary of Labor.

The work of the Legal Staff includes, among others, the handling of appealed cases to the Supreme Court, as well as social civil actions filed with the Court of First Instance wherein officials of the Department and the Regional Offices are being used in their official capacities; and conducting hearings of administrative investigations against erring employees, cases resulting from investigations by the Complaints and Action Unit and the Special Enforcement Projects. On the other hand, the Complaints and Action Unit handles various cases, most of which are claims for underpayment, separation pay and overtime pay. Cases are settled within two weeks to one month saving litigants time and money.

After the grant of Independence in 1946, the Philippines formally established diplomatic and other ties with foreign countries and gained membership in the United Nations and other specialized agencies. Membership in the International Labor Organization (ILO) in 1949 marked the beginning of Philippine participation in international labor affairs.

The Department of Labor was given the task of handling the country's membership obligations with the ILO, an organization dedicated to the continuing promotion of peace based on social justice. It has sought the ratification by the Government of international labor standards known as Conventions and Recommendations.



The Philippines has ratified 18 important Conventions of the ILO. The substance of these instruments has permeated into laws and national policies on wages, workmen's compensation, women and child welfare, and others which are continuously being modified for consistency therewith. The annual international labor conferences in Geneva are attended by Philippine tripartite (Government, labor and management) delegations. Participation at these conferences and other ILO gatherings is facilitated by the Department's International Labor Affairs Secretariat.

Besides handling ILO matters, the Secretariat coordinates the Department's relation with other international groups such as the Colombo Plan and U.S. Aid on labor matters. It has recently been entrusted with a new responsibility — the management of the labor attache program. The presence of thousands upon thousands of Filipino workers abroad, particularly in the Pacific area (Vietnam, Guam, Laos and Indonesia), and elsewhere in the United States and Europe (West Germany), has necessitated the assignment of labor attaches in these places to look after the protection of the worker's interests. A labor attache is posted at Geneva to work closely with the ILO.

The main thrust of ILO's recent efforts has been in the field of technical cooperation. Several ILO-assisted projects are in operation in the Philippines, the biggest of which is the National Industrial Vocational Training Program. Other projects are in employment service, occupational health and safety, and cooperatives. With the adoption of an Asian Manpower Plan, a regional project involving the Philippines is being launched to help cope with the problem of unemployment.

### **Compliance, Inspection and Investigation of Complaints**

One of the important functions of the Department of Labor is the inspection of establishments for safety, law enforcement, and general inspection. Safety inspections are made to enforce the Industrial Safety Law where boilers, pressure vessels and elevators are inspected for the benefit of all workers. Violators are reported and some cases are amicably settled to the benefit of all workers while the others are investigated and referred to courts for prosecution. All kinds of complaints are also investigated by the Department of Labor including those on maternity claims.

Various civil and criminal cases are filed with different courts some of which are on administrative grounds while others on the enforcement of the Workmen's Compensation Act.

### **Promotion and Maintenance of Industrial Peace**

The maintenance of industrial peace is a vital function of the Department of Labor. Despite the unsettling effect of the floating rate, the new minimum wage law and price instability, industrial relations remained relatively stable. It is the duty of the Department of Labor to prevent the strike notices filed, from flaring into labor disputes and exploding into strikes. About 47 percent of all strike notices arise from inter-union rivalries while 53 percent of all strikes rise from the renewal of existing collective bargaining agreements and the rest arise from miscellaneous causes.

### **Bureau of Labor Relations**

This Bureau helps in the negotiation of collective bargaining agreements to grant additional wages and other benefits, handles preventive mediation cases which when properly settled may result in the reinstatement of employees and the granting of payment of separatory pay claims and other benefits. This Bureau also supervises the registration of new unions, conducts cancellation of registration permits, supervises the certification and consent elections and observes the election of offices. It also renders consultative services to parties involving the interpretation and implementation of collective bargaining agreements, the new minimum wage law and other labor laws and assists in voluntary arbitration cases.

The increase in the number of strike notices filed with the Department of Labor may be attributed to the increased confidence of unions in the conciliation arm of the department. Even when the disputes arise from unfair labor practices, in which case no strike notices are needed, unions still file strike notices today, as a rule, in order to avail of the conciliatory assistance of the department. Another reason in the increase of strike notices is the increase in the number of unions, which naturally result in more disputes. The establishment of the floating rate and the enactment of the new minimum wage law which disturbed almost all pre-existing labor relations, including those embodied in collective bargaining agreements is also a reason for the strike notice increase.

### HISTORY OF UNIONISM IN THE PHILIPPINES

Unionism, although a relatively new movement in the Philippines, is growing. The number of unions registered has doubled during the last four years from 2,200 in 1967 to 4,600 this year. About 35 per cent of the new unions was organized in the agricultural sector, especially in the Visayas and Mindanao. About 15 per cent was organized in new areas: construction, industry, educational institutions, the jeepney industry, nurses and doctors, U.S. military bases in the Philippines and others. The rest from the manufacturing sector, waterfront workers, the mining industry and other already unionized sectors. The latest areas to be opened to unionism are educational institutions, both private and public.

Although Philippine organized labor is still divided into several functions, they have been acting as one with the support of the Department of Labor in dealing with common problems. For instance, all functions in the labor movement joined forces in the fight for the increase of the minimum wage, from P6.00 to P8.00 industry and from P4.00 to P4.75 in agriculture. They also fought against anti-labor bills introduced in Congress, among them, one seeking to restore compulsory arbitration in place of the present free collective bargaining systems especially in government corporations and public utilities.

The latest development in the labor movement is the direct participation of student activists of the right and the left in union activities. The unions which these two wings have organized are militant and have declared a number of strikes in various establishments during the period. Militant priests and nuns have joined the picket lines during the strikes.

Another new development in the Philippine labor movement is the increasing support of foreign groups in the field of labor education. The Asian-African Free Labor Institute, the AFL-CIO, the Frederick Ebert Foundation, and the Adenauer Foundation are working directly with the unions while ILO and UNDP are working through the Asian Labor Education Center and the Department of Labor. These foreign labor education programs constitute a major innovating force in the Philippine labor movement. Their activities may bring about changes from the present personality-centered unions to real broadly-based democratic unions.

The government encourages and protects unionism as an agent of democratization in Philippine society. Until now, however, most of the unions are led by the lifetime presidents and the union masses hardly participate in the union decision-making process. Union decisions are made most often by union presidents or union lawyers. Even collective bargaining in the Philippines usually consists of a dialogue between the management and union lawyers while the general union membership is being kept largely ignorant of what is happening inside the unions and its relations to the management.

This situation could be rectified by the Department of Labor by increased policing of union activities. In the absence of adequate financial and manpower resources, an effective labor education program remains to be an alternative. There is no substitute for mass labor education as a means of broadening the base of trade union democracy; hence, the labor department's policy of encouraging mass labor education.

#### Causes of Labor Disputes

Current labor disputes arise mainly from the deadlock in negotiations arising from the renewal of collective bargaining agreements which expire during the year. Inter-union or intra-union rivalries often give rise to refusal to bargain or to recognize any of the contending unions. The problem is aggravated by the failure of the CIR to act expeditiously on petitions for cer-

tification of election or representation cases. Inter-union rivalries also result in dismissals under the union security clause providing for maintenance of membership union shop or closed shop.

Other causes of labor disputes are unfair labor practices, including discrimination, harassment and coercion, against employees on the part of management who until now is unable to accept unionism as a fact; external factors such as leadership struggles within the union or within the management, the traditional legalistic approach to unionism, on the one hand, and the activists approach to a free collective bargaining, on the other; and lastly, the floating rate, the new minimum wage law, and the rising prices of commodities.

### Manpower Services

The Manpower Services of the Department of Labor, despite the lack of adequate funds, personnel, facilities and necessary equipment, was able to improve and increase its overall activities as provided by law. Through the concerted efforts of the Staff of the Office of Manpower Services with the backing of the officials of the Department of Labor and ILO, the Manila Employment Office has been remarkably improved, particularly through the introduction of new procedures and methods and revision of forms used.

There is a substantial increase of placement activities, practically all aspects of the placement activities such as the registrations interviews, referrals, solicitation of job openings, lapsing, revalidation of applicants, inactive files and employers visits, have not only increased in number but have also improved significantly. The vocational guidance program of the office has also been revitalized. More applicants have been given occupational tests and counseling interviews. The Office of Apprenticeship and some private employers have utilized testing facilities with satisfaction.

A more dynamic market program was set up. Aside from the labor market quarterly analysis of employment reports from major industries all over the country, which could give a picture of employment situation by sex, age and skill levels, rate of turnover in industries, increases and decreases of labor force, it also projects future needs for new jobs in various industries. The labor market program has also embarked on new projects and studies which could help provide the needed data for manpower planning and utilization. The Manpower Services is presently conducting a series of area skill survey which will establish a source of data by count and class, the reservoir of skilled and semi-skilled labor force, and undertaking occupational composition pattern study as its yearly activity. This study aims to find the proportion of worker categories existing in industries. It undertakes surveys of major occupational families in order to establish mobility rates by industry, occupation, and geographical area.

The labor market information program also provides the basic data for a realistic assessment of the extent and nature of unemployment and of labor supply and demand. This data is supplemented by periodic study and research projects being undertaken by the Office.

The Office of Manpower Services has developed an up-to-date and acceptable Philippine Occupational Classification and will continue updating and reviewing this standard occupational title of jobs through continuous studies of job descriptions in various industries. The Philippine Occupational Classification plus other Occupational Monograms have been distributed to the different regional employment offices and are also in demand by private offices, universities and colleges and other agencies of the government. The preparation of the third volume of the Philippine Occupational Classification will soon be undertaken.

The most noteworthy accomplishment of the Overseas and the Fee Charging Agencies Unit is the apprehension of some illegal recruiters for overseas employment and illegal recruitment of domestic helpers. The Unit has increased the number of issued licenses to agency operators, recruiters and labor contractors and has collected the amount of ₱28,468.00 as fees for the issuance of licenses. Investigations of cases regarding illegal recruitment and unpaid wages of domestic helpers have been done judiciously, resulting in the prosecution of some illegal recruitment of domestic helpers, and in the restitution of unpaid wages amounting to ₱3,778.00

covering 37 (domestic helpers) claimants. In order to safeguard the crew members of ocean-going and inter-island vessels, the overseas unit approved and formalized 271 shipping articles for ocean-going vessels and 480 shipping articles for inter-island vessels.

### Special Projects

The Information Labor Law Enforcement Project was conceived for the purpose of extending the benefits of the new Minimum Wage Law to the workers of commercial and industrial establishments that are not organized. It began operation on July 1, 1970, and inspection activities terminated on November 7, 1970. There were, 1,208 establishments owned by at least seven nationalities inspected with a total force of 92,085 workers. Filipinos owned 657 establishments; Chinese, 505 establishments; Americans, 14; Indian, 3; Spaniards, 2; Australian and German, 1 each, while 25 establishments inspected did not report ownership by nationality.

More than half of the establishments inspected, (656 of them) were found violating one or more provisions of the applicable labor laws. Restitution in the amount of ₱225,636.09 was paid to 3,629 workers.

Another special project launched was the "SAPRO", a continuation of Operation Sacada Protection.

## THE WAGE COMMISSION

The Wage Commission is a body created primarily to establish a multi-sectoral or industry-wide minimum wage system as an effective instrument on national policy in rationalizing the fixing of minimum wages. The Congress delegated this specific function to the Commission conscious of the fact that industry-wide minimum wages fixing is a more effective and a more democratic approach to the problem of adjusting wages under variable conditions than having to legislate, from time to time, statutes raising floor wages on a uniform national scale.

The Commission has three defined objectives. The first objective is the fixing of minimum wages by industry higher than the statutory minima. This objective contemplates raising, as far as economically feasible, the minimum wages in the different industries, agricultural and non-agricultural, to such a level as would be adequate to maintain the workers concerned in health, efficiency and general well-being, considering the cost of living; the wages established for work of like or comparable character by collective agreement or wage orders; the wages paid for work of like or comparable character by employers who voluntarily maintain reasonable standards, fair returns of the capital invested and the size, location and fertility of the agricultural farms.

Another objective is the promotion of industry and wide collective bargaining. This objective reinforces the state policy established in the Magna Carta of Labor to foster the growth of free, strong and democratic unionism for purposes of collective bargaining. It encourages the formulation of national and industrial unions as against craft or general unions and at the same time the organizations of employers associations by industry. It also recognizes the desirability of having labor-management relations on an industry-wide basis. This objective is to be attained by the legal injunction that, once the Wage Commission, in the course of its continuing studies, ascertains that a substantial number, or about ten per cent of the employees in a given industry are receiving inadequate wages, it should first recommend to the industry concerned, after notice and hearing, the fixing of a minimum wage through voluntary collective bargaining between representatives of the employers and employees with the industry.

As soon as the parties agree upon the minimum wage, it becomes incumbent on the part of the Commission once it finds the agreement to be in accordance with law and its Rules of Procedures to incorporate the same into a wage order in appropriate proceedings. Only where no wage agreement is reached for any reason within the allotted time, or a substantial majority of the parties petition the Commission to assume its wage-fixing authorities does the latter proceed to fix the appropriate minimum wage in the industry, after notice and hearing and in compliance with the other requirements of procedural due process.

The third objective of the Commission is to provide assistance in national wage policy formulation. Inasmuch as wage fixing has repercussions on such critical variables as economic growth, employment, and distribution of income, such function must be correlated with and integrated into a national wage policy in the context of national development. By the very nature of its functions, the Wage Commission is inevitably implicated in wage policy formulation.

The objectives of the Wage Commission are operationalized through the continuing study of wage rates in various agricultural and non-agricultural industries to ascertain whether a substantial number or about ten per cent of the employees in a given industry are receiving wages which are considered inadequate based upon the criteria mentioned above and other relevant indicators. Should such condition be found by the Commission to exist in an industry, it sets into operation the machinery for fixing a minimum wage.

It recommends after notice and hearing, the fixing of a minimum wage through collective bargaining between representatives of the employers and employees within such industry. In the course of such proceedings, mutual collective agreement may be hampered by problems relating to representation of either or both parties for purposes of collective bargaining, which make it indispensable on the part of the Wage Commission to exercise its function of conducting representation election and mediating in industry-wide collective bargaining as a whole.

The Commission then issues a wage order incorporating the agreement duly arrived at as a result of industry-wide collective bargaining; and fixes the appropriate minimum wage to be paid by employers in an industry if the parties themselves so petition, or if, for any reason an industry wage agreement is not arrived at through collective bargaining within the period prescribed by law and the implementing rules for the purpose. In the latter case, prior notice and hearings are again necessary.

Any wage order issued by the Commission fixing a minimum wage shall have the force and effect of the law, which the Commission may not disturb within two years from its effectivity, except to incorporate, should it so decide, new wage rates arrived at in subsequent industry agreements resulting from voluntary negotiations or collective bargaining.

It collects and/or compiles, analyses and periodically disseminates information, as a continuing activity essential to the effective administration of the Minimum Wage Law, as amended, including but not limited to employment, wages, hours, and other conditions of work, by locality, industry or occupation; wage practices; cost of living; family income and expenditures; production costs; labor productivity; investments and returns; and such other general economic indicators and non-economic data necessary for the accomplishment of objectives of the Commission. To insure that there is no duplication of effort and that the data especially collected are in a form which can be as useful as possible to other governmental statistical services, it is a function of the Wage Commission to conduct and coordinate with such services the collection and analysis of relevant data and statistics.

The Commission also serves as a consultative and advisory body in the formulation and execution of a wage policy within the context of national plans and policies.

### THE PHILIPPINE LABOR FORCE

The Bureau of the Census and Statistics conducts a nationwide survey on Philippine labor force twice a year. One is usually during the month of May and another in October. Of the two sets of statistics, however, the one in October is considered more representative of the conditions during the year inasmuch as school classes are in session during this month which falls within the season for harvesting and planting. For the purpose of comparison and to give users a choice of data to use both sets of data are presented hereunder.

The minimum age by which a person can be considered as part of the labor force varies from country to country. In the Philippines, one should be at least 10 years of age. As shown in

the October surveys, the country's population 10 years old, and over is increasing at a rate of 3.6 percent, that is, 15.1 million in 1956 to 22.9 million in 1968, (See Table XVIII.1). Within the same period the employed increase a rate of only 2.3 percent, or from 7.7 million in 1956 to 10.5 million in 1969. These figures show the much slower rate of increase in employment than that of increase in the population 10 years old and over.

The slow employment growth in recent years has been caused by the failure to speed up industrialization. The slow progress of industrialization has partly been due to the persistence of

**Table XVIII.1.—HOUSEHOLD POPULATION BY LABOR FORCE AND EMPLOYMENT STATUS URBAN AND RURAL:  
OCTOBER 1956 TO OCTOBER 1968**

(In thousands)

Year	Total persons 10 yrs. old and over	In the labor force	Fully and Partially Employed			Totally unem- ployed	Not in the labor force <sup>b/</sup>
			Total	In agricul- ture	In non- agricul- tural in- dustries <sup>a/</sup>		
Philippines							
1956	15,066	8,561	7,702	4,548	3,154	859	6,505
1957	15,518	8,829	8,199	4,997	3,202	630	6,688
1958	16,022	8,976	8,329	5,276	3,052	647	7,046
1959	16,463	9,116	8,575	5,298	3,278	540	7,347
1960	16,957	9,116	8,539	5,224	3,315	577	7,841
1961	17,465	9,713	9,095	5,514	3,580	618	7,753
1962	17,989	10,266	9,603	5,898	3,706	662	7,723
1963	18,529	10,233	9,764	5,779	3,985	469	8,296
1964 <sup>c/</sup>	19,361	10,485	9,927	5,752	4,176	558	8,876
1965	20,261	10,764	10,101	5,725	4,376	663	9,497
1966	21,336	11,757	10,936	6,290	4,646	821	9,579
1967	21,524	11,776	10,867	6,330	4,537	909	9,748
1968	22,932	11,371	10,471	5,631	4,839	900	11,561
Urban <sup>d/</sup>							
1965	6,496	3,313	2,958	481	2,477	355	3,183
1966	7,084	3,579	3,223	590	2,633	357	3,505
1967	7,194	3,483	3,124	537	2,587	359	3,711
1968	7,917	3,679	3,347	491	2,856	333	4,238
Rural <sup>d/</sup>							
1965	13,765	7,451	7,143	5,243	1,900	308	6,314
1966	14,252	8,178	7,714	5,700	2,014	464	6,074
1967	14,330	8,293	7,742	5,792	1,950	551	6,037
1968	15,015	7,692	7,124	5,141	1,983	568	7,323

<sup>a/</sup> Includes persons for whom no industry was reported.

<sup>b/</sup> Includes persons whose labor force status could not be determined.

<sup>c/</sup> No October survey was taken in 1964, figures for this year are based on the annual geometric growth rate for the period 1963-1965 and applied on 1964 figures.

<sup>d/</sup> No urban-rural breakdown of labor force figures are available from the survey results for 1956 to 1964.

Sources: Bureau of the Census and Statistics Survey of Households (BCSSH) known as the Philippine Statistical Survey of Households (PSSH), before July 1, 1958.

feudal elements and practices in our society. In the absence of a comprehensive development plan and of initiative on the part of the Government, investment in industry has too many uncertainties to be attractive to our entrepreneurs. Private capital finds it more profitable to go into trade (particularly export trade or trade imported luxuries), into securities speculation, or into construction and real-estate development. Causes of unemployment such as high population growth rate, low per capita income, and excessive inequality in income distribution are conditioned by the failure to shift the agricultural economy to an industrial one.

The rate of increase in employment during May was the same as that during October (See Table XVIII.2). The trend shows a very gradual shift of the agricultural employment to the non-agricultural. The rate of increase in agricultural employment was 2.0 percent as compared to 3.4 percent in the non-agricultural sector. The trend also shows that the rate of increase in the labor force was 2.4 percent per year, while that outside the labor force was 4.5 percent. This can be explained by the fact that more young members of the total number, 10 years of age and over, tend to continue their schooling with the growing availability of educational facilities.

Table XVIII.2—HOUSEHOLD POPULATION BY LABOR AND EMPLOYMENT STATUS, URBAN AND RURAL: MAY, 1957 TO MAY, 1969

(In thousands)

Year	Total : persons : 10 yrs. : old and : over :		In the : labor : force :		Fully and Partially Employed :			Totally : Unem- : ployed :		Not in : the labor : force <sup>b/</sup>	
					Total :	In : agricul- : ture :	In non- : agricul- : tural in- : dustry <sup>c/</sup>				
<b>Philippines</b>											
1957	15,327	8,922	8,149	4,938	3,211	773	6,405				
1958	15,787	9,659	8,732	5,325	3,457	878	6,128				
1959	16,260	9,575	8,836	5,450	3,387	739	6,685				
1960 <sup>a/</sup>	16,748	9,920	9,111	5,533	3,577	808	6,828				
1961	17,251	10,277	9,395	5,617	3,778	883	6,974				
1962	17,724	10,592	9,680	5,910	3,770	1,012	7,032				
1963	18,355	11,137	10,315	6,131	4,184	871	7,169				
1964	18,850	11,296	10,572	6,188	4,384	724	7,554				
1965	20,000	11,491	10,543	6,052	4,491	947	8,510				
1966	20,950	11,886	11,032	6,275	4,757	854	9,064				
1967	21,703	13,274	12,185	6,993	5,192	1,089	8,429				
1968	22,108	13,534	12,481	7,202	5,280	1,053	8,574				
1969	23,167	12,046	11,235	6,326	4,909	812	11,121				
<b>Urban<sup>d/</sup></b>											
1965	6,393	3,410	3,016	507	2,509	394	2,983				
1966	6,928	3,555	3,136	521	2,615	419	3,372				
1967	7,271	3,943	3,426	593	2,833	517	3,328				
1968	7,555	4,125	3,602	635	2,967	523	3,430				
1969	7,976	3,596	3,267	540	2,727	329	4,380				
<b>Rural<sup>d/</sup></b>											
1965	13,607	8,080	7,527	5,545	1,932	553	5,527				
1966	14,022	8,331	7,896	5,754	2,142	435	5,691				
1967	14,432	9,331	8,759	6,400	2,359	572	5,101				
1968	14,553	9,409	8,379	6,567	2,312	530	5,143				
1969	15,191	8,450	7,693	5,785	2,132	483	6,741				

<sup>a/</sup> Includes persons for whom no industry was reported.

<sup>b/</sup> Includes persons whose labor force status could not be determined.

<sup>c/</sup> No May survey was taken in 1960. Figures for this year are based on the annual geometric growth rate for the period 1959-1961 and applied on 1959 figures.

<sup>d/</sup> No urban-rural breakdown of labor force figures are available from the survey results for 1956 to 1964.

Sources: Bureau of the Census and Statistics Survey of Households (BCSSH) taken on the dates indicated in the table. Before July 1, 1958, the survey was known as the Philippine Statistical Survey of Households (PSSH).

Low per capita income in the rural areas makes it necessary to have more members of the family join the labor force. This partly explains the fact that the rural areas have a higher rate of increase in employment than the urban areas. The totally employed in urban areas has a rate of increase of 4.3 percent per year while that in the rural areas has 5.5 percent. More agricultural employment can of course be found in the rural areas than in the urban areas.

The percentage of men in the labor force was much larger than the percentage of women, the majority of whom are still occupied with household duties. Moreover, for both sexes, the participation rates for people in the years 25-64 were much higher than those in the younger-age groups (most of whom are in school), and those among older people (most of whom are retired from active work).

From 1961 to 1969 the average percentage of the population 10 years old and over in the labor force was 5.9 percent, with the male accounting for an average of 77 percent while the female, about 40 percent (See Table XVIII.3). Percentage of male participation was higher than that of the female at all age levels.

Labor participation for both sexes dropped to a level of 52 percent in 1969. This was the lowest ever recorded in the period 1961-1969. This could have resulted from the continued stay in school of the younger-age groups and the increasing dependence, particularly among the female population.

Table XVIII.3—LABOR FORCE PARTICIPATION RATES, BY AGE GROUP AND SEX  
MAY 1961 TO MAY 1969

Age group and sex	Percent of the population 10 years old and over in the labor force								
	1961	<sup>a/</sup> 1962	1963	1964	1965	1966	1967	1968	1969
Both Sexes	59.6	60.3	60.9	59.2	57.5	56.7	61.2	61.2	52.0
10 - 24 years	51.8	50.9	51.6	49.3	46.1	45.6	51.9	50.3	38.8
25 - 44 years	68.9	70.9	72.0	71.9	71.2	69.7	72.0	74.4	66.9
45 - 64 years	70.3	72.1	71.8	71.5	68.8	69.6	72.4	73.1	66.4
65 years old and over	35.4	36.1	36.1	38.6	36.9	34.9	38.3	39.9	36.6
Male	78.8	78.6	78.7	78.2	76.4	75.9	78.8	77.8	70.6
10 - 24 years	64.5	62.3	62.5	61.3	57.3	57.7	63.3	60.8	48.7
25 - 44 years	97.2	97.8	97.7	97.7	97.9	96.8	97.9	98.6	96.2
45 - 64 years	93.3	94.5	94.5	94.9	95.2	94.7	94.5	95.2	92.6
65 years old and over	50.8	54.0	53.5	52.7	57.7	53.5	54.4	59.3	56.5
Female	40.3	42.5	43.6	42.0	38.7	37.7	43.5	44.8	33.8
10 - 24 years	38.7	39.5	40.8	37.2	35.0	33.7	40.3	39.5	28.8
25 - 44 years	43.0	46.8	48.2	48.0	45.3	43.8	47.8	52.2	40.5
45 - 64 years	45.3	48.3	48.6	47.3	41.7	43.0	49.2	51.3	39.4
65 years old and over	20.0	18.7	17.4	24.3	17.3	15.4	21.2	16.7	14.9

<sup>a/</sup> Nationwide sample survey of households for 1962 was conducted in April.

Sources: Data from 1961 to 1963 was taken from the BCS Survey of Households Bulletin, May 1966, Series No. 20. Data from 1964 to 1969 was taken from the BCS Survey of Households Bulletin, May 1969, Series No. 27.



Labor force participation rate of the 10-24 age groups as shown in October surveys showed a declining trend from 1956 to 1968 (See Table XVIII.4). Again this was because of the increasing number of persons in this age group who were going to school. However, the participation of this age group showed little variation in the May Survey (See Table XVIII.5), simply because school classes are not in session at this time. About one-third percent of the labor force 65 years and over remained economically active.

Table XVIII.4—LABOR FORCE PARTICIPATION RATES BY AGE GROUP:  
OCTOBER 1956 - OCTOBER 1968

Year	Age group			
	10 - 24	25 - 44	45 - 64	65 years
	YEARS	YEARS	YEARS	and over
1956	45.3	71.4	69.0	31.6
1957	45.6	70.0	69.7	35.6
1958	43.1	70.0	71.3	34.4
1959	41.9	68.7	71.8	39.6
1960	40.4	67.8	69.9	36.4
1961	41.8	70.2	71.6	37.6
1962	42.4	72.3	73.2	37.8
1963	40.1	71.4	71.6	35.3
1965	38.4	69.6	69.5	38.5
1966	40.2	71.8	71.0	40.0
1967	37.5	73.9	71.7	40.6
1968	33.1	68.6	66.3	34.7

Sources: Bureau of the Census and Statistics Survey of Households (BCSSH) taken on the dates indicated in the table. Before July 1, 1958, the survey was known as the Philippine Statistical Survey of Households (PSSH).

Table XVIII.5—LABOR FORCE PARTICIPATION RATES BY AGE GROUP:  
MAY 1957 TO MAY 1969

Year	Age group			
	10 - 24	25 - 44	45 - 64	65 years
	YEARS	YEARS	YEARS	and over
1957	51.2	67.2	67.6	33.9
1958	53.2	70.6	71.7	38.0
1959	49.4	69.1	71.2	37.0
1961	51.8	68.9	70.3	35.4
1962	50.9	70.9	72.1	36.1
1963	51.6	72.0	71.8	36.1
1964	49.3	71.9	71.5	38.8
1965	46.1	71.2	68.8	36.9
1966	45.6	69.1	69.6	34.9
1967	51.9	72.0	72.4	38.3
1968	50.3	74.4	73.1	39.9
1969	47.2	66.9	66.8	36.6

Sources: Bureau of the Census and Statistics Survey of Households (BCSSH). Before July 1, 1958, the survey was known as the Philippine Statistical Survey of Households (PSSH).

Persons employed in agriculture, forestry, hunting and fishing comprised the largest group in the labor force accounting for 6,325,000, or 56.3 percent of the entire labor force in 1969 (See Table XVIII.6). Manufacturing came next accounting with 1,291,000 or 11.5 percent.

Government, community, business and recreational services accounted for 884,000 of the total employment in 1969; domestic services, 527,000; construction, 349,000; personal services other than domestic, 245,000; mining and quarrying, 51,000; and electricity, gas, water, and sanitary services, 29,000. Other industries not reported accounted for 40,000.

The general decrease in employment in 1969 brought about a similar decline in almost all industries especially agriculture, forestry, hunting, and fishing, registering a drop in the proportion from 57.7 percent in 1968 to 56.3 percent in 1969. Commerce decreased from 11.1 percent to 9.7 percent within the same period.

Farmers, farm laborers, fishermen, hunters, loggers and related workers constitute the main bulk among all major occupation groups accounting for about 6,294,000 in 1969, or 56.0 percent of the labor force (See Table XVIII.7). Craftsmen and related workers ranked second, accounting for 1,442,000 or 12.8 percent. Sales workers came next, accounting for 1,039,000 or 9.2 percent.

Other occupation groups had the following numbers: professional and related workers, 447,000; administrative, executive and managerial works, 122,000; manual workers and laborers, 208,000; workers in transport and communication, 367,000; clerical workers, 332,000; miners, quarrymen and related workers, 39,000

Table XVIII.6—EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP MAY 1961 TO MAY 1969

(Number in thousands. Data refer to household population)

Major Industry Group	1961		1962		1963		1964		1965		1966		1967		1968		1969	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>TOTAL</b>	11,113	100.0	10,822	100.0	10,314	100.0	10,376	100.0	10,288	100.0	11,021	100.0	12,186	100.0	12,682	100.0	12,398	100.0
Agriculture, forestry, hunting and fishing	5,627	50.6	5,910	54.6	6,131	59.4	6,169	59.5	6,082	59.4	6,275	56.9	6,993	57.4	7,302	57.7	6,325	56.3
Mining and quarrying	34	0.3	38	0.3	38	0.3	38	0.3	38	0.3	38	0.3	38	0.3	46	0.4	51	0.5
Construction	251	2.3	269	2.5	284	2.8	304	2.9	303	2.9	303	2.7	367	3.0	370	2.9	349	2.8
Manufacturing	1,113	10.0	1,088	10.0	1,029	10.0	1,045	10.0	1,022	10.0	1,031	9.3	1,089	9.0	1,087	8.6	1,291	10.4
Electricity, gas, water, and sanitary services	28	0.2	31	0.3	33	0.3	33	0.3	33	0.3	33	0.3	33	0.3	37	0.3	39	0.3
Commerce	896	8.0	909	8.4	1,076	10.4	1,095	10.5	1,120	10.9	1,397	12.6	1,398	11.5	1,379	10.8	1,309	10.6
Transport, storage and communication	310	2.8	325	3.0	325	3.1	331	3.2	307	3.0	307	2.8	303	2.5	300	2.4	303	2.4
Government, community, business and recreational services	489	4.4	501	4.6	526	5.1	509	4.9	500	4.9	507	4.6	506	4.2	521	4.1	527	4.3
Domestic services	334	3.0	390	3.6	373	3.6	370	3.6	475	4.6	482	4.4	504	4.2	507	4.0	507	4.1
Personal services other than domestic	197	1.8	207	1.9	215	2.1	229	2.2	251	2.4	268	2.4	245	2.0	268	2.1	246	2.0
Industry not reported	122	1.1	(a)	0.1	20	0.2	14	0.1	(a)	0.1	23	0.2	20	0.2	20	0.2	40	0.3

<sup>a/</sup> Nationwide sample survey for 1962 was conducted in April.

Source: Data from 1961 to 1964 was taken from the BLS Survey of Household Population, May 1964, Series No. 80. Data from 1964 to 1969 was taken from the BLS Survey of Household Population, May 1969, Series No. 77.

Table XVIII.7—EMPLOYED PERSONS BY MAJOR OCCUPATION GROUP MAY 1961 TO MAY 1969

(Number in thousands. Data refer to household population)

Major Occupation Group	1961		1962		1963		1964		1965		1966		1967		1968		1969	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>TOTAL</b>	11,113	100.0	10,822	100.0	10,314	100.0	10,376	100.0	10,288	100.0	11,021	100.0	12,186	100.0	12,682	100.0	12,398	100.0
Professional, technical and related workers <sup>1/</sup>	378	3.4	380	3.5	368	3.6	315	3.0	377	3.6	379	3.4	435	3.6	471	3.7	467	3.8
Administrative, executive and managerial workers	331	3.0	343	3.1	350	3.4	435	4.2	373	3.6	426	3.9	439	3.6	386	3.1	332	2.7
Clerical workers	296	2.7	268	2.5	297	2.9	280	2.7	361	3.5	367	3.3	332	2.8	334	2.7	332	2.7
Sales workers	966	8.7	994	9.2	1,076	10.4	1,095	10.5	1,120	10.9	1,397	12.6	1,398	11.5	1,379	10.8	1,309	10.6
Farmers, farm laborers, fishermen, hunters, loggers and related workers	5,627	50.6	5,910	54.6	6,131	59.4	6,169	59.5	6,082	59.4	6,275	56.9	6,993	57.4	7,302	57.7	6,325	56.3
Miners, quarrymen and related workers	27	0.2	27	0.2	21	0.2	29	0.3	23	0.2	24	0.2	40	0.3	38	0.3	39	0.3
Workers in transport and communication	310	2.8	325	3.0	325	3.1	331	3.2	307	3.0	307	2.8	303	2.5	300	2.4	303	2.4
Craftsman production-process workers and related workers	1,113	10.0	1,088	10.0	1,029	10.0	1,045	10.0	1,022	10.0	1,031	9.3	1,089	9.0	1,087	8.6	1,291	10.4
Manual workers and laborers, n.e.c.	184	1.7	204	1.9	207	2.0	268	2.6	218	2.1	191	1.7	202	1.7	195	1.6	208	1.7
Services, sports and related workers <sup>2/</sup>	615	5.5	605	5.6	665	6.4	701	6.8	826	8.0	814	7.4	753	6.2	710	5.6	727	5.9
Occupation not reported	114	1.0	(a)	0.1	18	0.2	14	0.1	(a)	0.1	23	0.2	20	0.2	20	0.2	40	0.3

<sup>1/</sup> Nationwide sample survey of households for 1962 was conducted in April.

<sup>2/</sup> Included in the estimates for May 1968 and earlier rounds but excluded from the May 1969 estimate for this group are (a) athletes, sportsmen and related workers, and (b) photographers and related camera operators. See also the third footnote.

<sup>3/</sup> Included in the estimates for May 1968 and earlier rounds but excluded from the May 1969 estimate for this group are working proprietors in wholesale and retail trade including proprietors of mail-order stores. See also the third footnote.

<sup>4/</sup> Excluded from the estimates for May 1968 and earlier rounds, but included in the May 1969 estimate for this group are working proprietors in the wholesale and retail trade including proprietors of mail-order stores. See also the third footnote.

<sup>5/</sup> Excluded from the estimates for May 1968 and earlier rounds but included in the May 1969 estimate for this group are (a) athletes, sportsmen and related workers and (b) photographers and related camera operators. See also the third footnote.

Source: Data from 1961 to 1964 was taken from the BLS Survey of Household Population, May 1964, Series No. 20. Data from 1964 to 1969 was taken from the BLS Survey of Household Population, May 1969, Series No. 27.

The percentage of salaried workers in the labor force gradually increased from 30.9 percent in 1956 to 37.7 percent in 1968 (See Table XVIII.8). On the other hand, the percentage of the unpaid family workers (usually in agriculture) decreased from 23.9 percent in 1956 to 19.1 percent in 1968. This indicates that an increasing number of agricultural workers leave the farm to become salaried workers in towns and cities. However, the percentage of the self-employed workers showed very little change with an average of 0.6 percent increase during the last 12 years. There was no October survey of employed persons by class of worker in 1969.

In the 1968 May survey, the number of salaried and self-improved workers were both lower than that in the October survey by 3.4 and 5.5 percent, respectively (See Table XVIII.9). The percentage of unpaid family workers was higher by 9.1 percent.

The money wage rate index of skilled laborers in industrial establishments in Manila and suburbs showed a gradual increase of 47.2 percent, that is from 95.8 percent in 1951 to 143.0 percent in 1969 (See Table XVIII.10). However, the declining trend of the real wage rate (besides being lower as compared to the money wage rate) was not very encouraging. In the 1969 the money wage rate was 143.0 percent while the real wage rate was only 89.2 percent.

Table XVIII.8—EMPLOYED PERSONS BY CLASS OF WORKERS OCTOBER, 1957  
TO OCTOBER, 1968

Year	(Percent)				
	Total	Salaried Workers	Self- employed workers	Unpaid family workers	Not reported
1956	100.0	30.9	44.7	23.9	0.5
1957	100.0	31.8	42.3	25.6	0.3
1958	100.0	30.9	42.1	26.6	0.4
1959	100.0	31.6	43.5	24.6	0.3
1960	100.0	32.8	42.3	24.5	0.4
1961	100.0	33.5	42.3	23.9	0.3
1962	100.0	34.7	40.2	24.8	0.3
1963	100.0	34.7	40.9	24.1	0.2
1964	100.0	36.5	41.2	21.9	0.4
1966	100.0	37.4	38.6	23.8	0.2
1967	100.0	37.4	39.7	22.8	0.1
1968	100.0	37.7	42.8	19.1	0.4

✓ Includes employers.

Source: Bureau of the Census and Statistics Survey of Households (BCSSH). Before July 1, 1958, the Survey was known as the Philippine Statistical Survey of Households (PSSH).

Table XVIII.9—EMPLOYED PERSONS BY CLASS OF WORKERS MAY, 1957  
TO MAY, 1969

Year	(Percent)				
	Total	Salaried Workers	Self- employed workers	Unpaid family workers	Not reported
1957	100.0	26.4	43.4	29.5	0.2
1958	100.0	27.0	42.6	30.1	0.3
1959	100.0	27.0	42.8	30.0	0.2
1961	100.0	29.1	40.5	29.3	1.0
1962	100.0	30.3	40.3	29.2	0.2
1963	100.0	30.8	40.4	28.6	0.2
1964	100.0	31.7	39.6	28.5	0.1
1965	100.0	34.9	41.0	24.1	0.1
1966	100.0	34.4	37.7	27.4	0.5
1967	100.0	36.2	37.0	26.7	0.1
1968	100.0	34.3	37.3	28.2	0.1
1969	100.0	34.8	39.6	25.4	0.2

✓ Includes employers.

Source: Bureau of the Census and Statistics Survey of Households (BCSSH). Before July 1, 1958, the survey was known as the Philippine Survey of Households (PSSH).

The money wage rate index of the unskilled laborer increased by 70.9 percent from 89.4 percent in 1951 to 160.3 percent in 1969. The real wage rate of the unskilled laborer was however much lower than their money wage rate. In 1969, his money wage rate was 160.3 percent while his real wage rate was only 100.00 percent.

As shown by the October 1965 survey, 14.1 per cent of the labor force never had the chance to go to school (See Table XVIII.11) The highest percentage, which was 40.9 percent, completed only the first 5 years of schooling. Those who reached grade six up to third year of high school was 29.6 percent. Those in fourth year high school to third year college was 10.4 percent, while those who reached fourth year college and higher was only 5.0 percent. It is interesting to note that there were more unemployed among those who reached higher levels of education, as evidenced by the 41.6 percent unemployed compared to 28.8 percent employed among those who reached grade six up to third year of high school. Among those who reached fourth year high school to third year college 20.7 percent was unemployed, while 9.7 percent was employed. The percentage of the unemployed (0.47 percent) among those who reached fourth year and higher was almost equal to the percentage of the employed (4.9 percent).

There were more females (17.3 percent) in the labor force among those who did not complete any grade in school as compared to the male (12.5 percent). In the group that completed 5 years of schooling, there were more males (42.2 percent) than females (38.5 percent). The percentage of males (29.9) who reached grade six up to third year of high school was almost equal to that of females (29.2). There were more males in the labor force (11.6 percent) among those who reached fourth year high school to third year college as compared to females (8.1 percent.) Among those who reached fourth year college and higher, there were more females (6.9 percent) than males (4.0 percent).

Table XVIII.10—WAGE RATES INDEX OF LABORERS IN INDUSTRIAL ESTABLISHMENTS  
IN MANILA AND SUBURBS: 1951 TO 1969  
(1955=100)

Year	Money wage rates		Real wage rates <sup>1/</sup>	
	Skilled laborers	Unskilled laborers	Skilled laborers	Unskilled laborers
1951	95.8	89.4	84.5	78.8
1952	97.4	95.6	91.8	90.1
1953	99.5	98.3	97.1	95.9
1954	100.0	97.1	99.0	96.1
1955	100.0	100.0	100.0	100.0
1956	100.3	101.5	97.7	98.8
1957	100.0	100.4	95.7	96.1
1958	103.5	101.0	95.8	93.5
1959	105.3	101.8	98.4	95.1
1960	105.1	101.9	94.3	91.4
1961	104.8	104.4	92.6	92.2
1962	106.1	107.5	88.6	89.7
1963	109.3	113.4	86.4	89.6
1964	111.2	114.4	81.2	83.6
1965	114.4	112.5	81.5	87.3
1966	120.1	131.4	80.6	88.2
1967	125.7	137.6	79.8	87.3
1968	135.8	153.1	86.0	96.9
1969	143.0	160.3	89.2	100.0

<sup>1/</sup> Obtained by deflating money wage rate index by the consumer price index (1955=100) in Manila.

Source: Central Bank of the Philippines.

Table XVIII.11—PERCENTAGE OF PERSONS IN THE LABOR FORCE BY EDUCATIONAL ATTAINMENT LEVEL, EMPLOYMENT STATUS, AND SEX: MAY 1961 AND OCTOBER 1965

Educational attainment and sex	May 1961			October 1965		
	In the	labor	Unem-	In the	labor	Unem-
	force	Employed	ployed	force	Employed	ployed
Both Sexes	100.0	100.0	100.0	100.0	100.0	100.0
No grade completed	15.9	16.9	5.8	14.1	14.7	6.3
Grade 5 or lower	43.2	44.4	31.2	40.9	41.8	26.8
Grade 6 to 3rd year high school	28.3	27.2	39.3	29.6	28.8	41.6
4th year high school to third year college	9.3	8.3	20.6	10.4	9.7	20.7
4th year college or higher	3.2	3.2	3.0	5.0	4.9	4.7
Male	100.0	100.0	100.0	100.0	100.0	100.0
No grade completed	14.4	15.1	3.5	12.5	12.9	6.0
Grade 5 or lower	44.3	45.3	28.9	42.2	42.9	25.0
Grade 6 to 3rd year high school	28.7	27.9	41.0	29.9	29.4	40.7
4th year high school to third year college	9.6	8.8	23.7	11.6	10.9	23.3
4th year college or higher	3.0	3.0	2.9	4.0	4.0	4.9
Female	100.0	100.0	100.0	100.0	100.0	100.0
No grade completed	19.0	20.6	7.9	17.3	18.3	6.5
Grade 5 or lower	41.1	42.4	33.3	38.5	39.5	29.0
Grade 6 to 3rd year high school	27.4	25.8	37.9	29.2	27.8	42.4
4th year high school to third year college	8.7	7.4	17.8	8.1	7.3	17.6
4th year college or higher	3.8	3.8	3.1	6.9	7.2	4.5

Source: The Philippine Statistical Survey of Households Bulletin, Series No. 9, Table 36, p. 38, and the BCS Survey of Households Bulletin, Series No. 19, Table 37, p. 38.

## CHAPTER XIX — TRANSPORTATION

### RAILWAYS

On January 1, 1887, concession for the construction of a railway line from Manila to Dagupan, Pangasinan, was awarded by a Royal Decree of the Spanish Crown to an English Company, the Manila Railway Company Ltd. This Company completed the construction of the 42-inch gauge Manila-to-Dagupan line of 195.4 kilometers and on November 24, 1892, the railway was in operation.

During the Filipino revolution against the Spanish government in 1896 and the Filipino struggle against the United States of America, portions of the railway lines were controlled in succession by the Filipino forces and the American military authorities until the early part of 1900 when the railway was returned to its owner. On December 8, 1902, the Philippine Commission authorized the construction of additional railway lines and between 1902 and 1909, other Acts were passed authorizing further railway construction and the issuance of bonds. From 1902 to 1916, a total of 792.5 kilometers of new lines built by the English Company of New Jersey.

During World War I the railroad company experienced financial difficulties and, as a result, the Philippine government was able to negotiate the purchase of the entire railway on very favorable terms, pursuant to Act No. 2574 approved on February 4, 1916. The transfer of ownership was consummated in January, 1917, when the Philippine Government paid the sum of ₱8,000,000 in cash and over ₱53,900,000 in bonded indebtedness. The management of the railroad was passed first from the hands of the English to the American executives, and in 1923 from American to Filipino management. From 1917 to 1940 the railroad was modernized and extended so that by the end of this period the company was operating lines from Dagupan to San Fernando, La Union, in northern Luzon, and from Manila to the Port of Legaspi in southern Luzon. A number of branch lines were also constructed during this period.

The charter of the Manila Railroad Company included authority to own and operate hotels and marine equipment and facilities. Hence by 1940 the railroad owned and operated the Manila Hotel, the Manila Port Terminal Building, and Taal Vista Lodge in Tagaytay City, together with a large fleet of buses, trucks, and shipping facilities.

World War II brought considerable destruction to the property and facilities of the railroad. In December 1941 properties were placed under U.S. military control and the military authorities directed the management to destroy all rolling equipment and facilities as the Japanese Army threatened to take over the lines.

During the Japanese occupation, portions of the railroad lines were temporarily rehabilitated by the Japanese Army, but these portions in turn suffered destruction when the American military forces returned to the Philippine in 1945. The estimated damage suffered by the railroad as a result of World War II was about ₱30,000,000 at pre-war level of prices.

From January 1945 to the end of January 1946, the United States Army restored and operated about 40 percent of the pre-war lines, mostly on temporary repairs. From January 1946 until the end of 1953, the railroad was slowly rehabilitated and its operation was gradually restored even though the company faced severe financial difficulties and losses.

The railroad management and the Philippine Government were not indifferent to the precarious financial condition of the company. In 1951, under the auspices of the Philippine Council for United States Aid (PHILCUSA), the firm of De Leon, Cather and Company was engaged to survey, report and submit recommendations not only for the improvement of the Manila Railroad Company, but also for the proposed railroad development in the island of Mindanao. From 1954 to 1956, the railroad management succeeded both in rehabilitating most of the lines and in completely using diesel engines. Because of the poor financial condition of the railroad company after World War II and until the end of 1953, amortization payments on the bonded indebtedness had been defaulted. The new management, however, succeeded in retiring the debenture

bonds held by the English which is a fraction of the total indebtedness and in transferring this obligation to the Rehabilitation Finance Corporation of the Philippines (now the Development Bank of the Philippines). In 1965 comprehensive study of Philippine domestic transportation was undertaken by the Stanford Research Institute of California for the National Economic Council of the Republic of the Philippines.

Operations were intensified and conditions improved so the railroad company showed a profit of about ₱3.6 million for the fiscal year 1956-1957, the first remarkable gain ever recorded by the Company. In 1957 the Philippine Congress passed the following Acts:

1. Act No. 1923 appropriating ₱15,000,000 for the extension of the Manila Railroad line from Daraga, Albay to Matnog, Sorsogon.
2. Act No. 1867 appropriating ₱6,000,000 annually for five (5) years and authorizing the allocation of ₱12,000,000 of reparations from Japan annually for four (4) years for the extension of the Manila Railroad Company from San Jose, Nueva Ecija to Tuguegarao, Cagayan.
3. Act No. 1801 appropriating the sum of ₱3,800,000 for the rehabilitation of the Manila Railroad Company line from Plaridel, Bulacan to Cabanatuan City

During the succeeding years after 1957, the financial conditions of the railroad and its operations again slowly deteriorated so that by the end of 1963 the company management and the Office of the Economic Coordination, cognizant of this precarious conditions, invited proposals from reliable foreign consulting firms for the immediate survey and study towards revitalizing and modernizing the railroad. Several proposals were received from different consulting firms from various countries. After a very careful study and deliberation of these proposals, the government authorities decided to award and entrust this important task to Japan Engineering Consultants Company Ltd. The formal contract was agreed and signed between the Manila Railroad Company, represented by its General Manager, and the Japan Engineering Consultants Company Ltd.

On June 20, 1964, Republic Act No. 4156 was passed by Congress and approved by the President, creating the Philippine National Railways (PNR), prescribing its powers, functions and duties and providing for the necessary funds for its operations. By this Act, the Manila Railroad Company ceased to exist and in its stead the Philippine National Railways was established.

### Railway Operations

The total railway operating revenues for fiscal year 1970 amounted to ₱34.7 million; this is slightly higher than the 1969 level of ₱34.5 million. This increase was effected in spite of significant decline in receipts from freight and first-class passengers, because of increased revenues from the third-class passengers and a pronounced improvement in express earnings.

The main component of revenues from passenger trains are the passenger revenues and earnings from the shipment of express goods. Passenger revenues improved from ₱24.87 million in 1969 to more than ₱26 million in 1970. The increase in passenger revenues, in spite of a decrease of 11.51 per cent in passenger trains operated and 6.40 per cent in passenger-train kilometers run, was due to the increase in the number of passengers carried, a record of passenger kilometers that was 6.09 per cent higher than the previous years' performance and a longer average passenger journey in 1970.

Express passenger revenues for the fiscal year 1967-68, 1968-69 and 1969-70 were ₱2.86 million, ₱2.95 million and ₱3.5 million, respectively. This increase in express passenger revenues, however, was overshadowed by a spectacular increase of 18.90 per cent in express tonnage transported.

Income realized from other sources levelled down from ₱1,091,654 in 1969 to ₱916,966 in 1970, decreasing by 10.07 per cent. The non-operating income dropped to a low ₱2.04 million, which was 53.7 per cent less than the 1969 record of ₱4.4 million.

An acute shortage of locomotive power brought about the decision to further reduce the daily scheduled passenger trains. The number of passenger trains operated in 1970 both motor cars and diesel-run passenger trains, added up to 10,764, or an 11.51 per cent decrease from that in 1969. Shift in passenger service were aimed at an increased utilization of passenger trains, improved seat occupancy ratio, more passengers per train, and market exploitation which would give more revenue per passenger-kilometer as well as prolong the average passenger journey. Train kilometers for both diesel and motor car passenger trains had a consolidated total of 2.7 million kilometers in 1970, compared to 2.9 train-kilometers in 1969.

Rail freight suffered a continuing slump in business. The reassignment of inadequate locomotive power caused the cancellation of freight train schedules between Manila and Tagkawayan and between Manila and Naga where daily train capacity represented 58 per cent of what used to be a daily 1,310 freight-train kilometers in the south. Classified into types of commodities, freight loadings in 1970 were dominated loadwise by sugar cane, lumber, cement, flour, centrifugal sugar, manufactured goods, wood-fuel and carload shipment, which all combined to give a total freight loading of 381,116 tons, out of the total of 441,152 tons of revenue freight carried in fiscal year 1969-70.

The demand for transport facilities for freight continued to increase steadily and yet the capacity to meet this demand diminished steadily. This situation, together with other factors, forced some shippers to move their goods even at higher rates required of express shipments, thus resulting in improvement of revenues from express service.

### Deraillments and Accidents

For the period from July 1, 1969, to June 30, 1970, there were recorded nine (9) cases of trains being derailed, representing 0.04 per cent of the total 22,181 trains run, causing damage to rolling stock, railroad tracks, and bridges. There were other minor accidents such as a pair or more wheels of wagons or of coaches slipping off the rails, which numbered 92 or 0.42 per cent of the total number of trains run during the period. For the same period, 12 cases of trains struck or burned by privately owned vehicles at railway-highway intersections were noted, causing injuries to some 39 people, most occupants of these vehicles.

### BUS LINES OPERATIONS

The Philippine National Railways (PNR) is also operating the Luzon Bus and the Benguet Auto lines. The combined total revenues from both the Luzon Bus and the Benguet Auto Lines for the year 1970 added up to ₱3.092 million which was ₱493 thousand short of 1968-69's record of ₱3.6 million or 13.75 per cent.

Table XIX.1 - BUS OPERATION STATISTICS

	1969-70	1968-69	Absolute Increase (Decrease)	Percentage Increase (Decrease)
<b>LUZON BUS LINE</b>				
Number of passengers carried	77,456	114,652	(37,196)	(32.50)
Total Bus/Car Kilometers	873,863	1,065,386	(191,503)	(14.76)
Freight and Express Carried (Tons)	555.03	447.53	(107.50)	24.02
Total Luzon Bus Line Income	₱ 542,943.05	₱ 769,546.64	₱(226,643.59)	(24.45)
<b>BENGUET AUTO LINE</b>				
Number of passengers carried, 1st class	45,505	61,603	(16,100)	(26.13)
Number of passengers carried, 2nd class	883,053	944,967	(61,914)	(7.18)
Number of passengers, automobile service	10,263	16,455	(6,192)	(37.63)
Freight and Express Carried (Tons)				
Total Benguet Auto Line Income	₱ 509,797.87	₱ 816,289.23	₱(306,491.36)	(30.46)
<b>TOTAL BUS LINE INCOME</b>				
Total income from both LBL AND BAL	₱5,092,740.92	₱5,585,835.87	₱(493,134.95)	(13.75)
Total number of passengers carried by both LBL and BAL	1,016,275	1,137,677	(121,402)	(10.67)

Source: Philippine National Railway.



## TRANSPORTATION

Table XIX.2 - MISCELLANEOUS INFORMATION ON MAINTENANCE, STOCKS AND RAIL OPERATION:  
1968-69 AND 1969-70

	1969-70	1968-69	Absolute Increase (Decrease)	Percentage Increase (Decrease)
<b>MAINTENANCE OF WAYS AND STRUCTURES</b>				
Kilometers of road operated	1,052.679	1,052.679	-	-
Tracks kilometer of new 75# rails, placed	24.18	40.01	(15.83)	(39.70)
Number of ordinary ties placed	68,035	44,514	23,521	52.84
Number of bridges and switch ties placed	3,892	3,513	379	10.78
Cubic meters of ballast placed	27,589	29,274	(1,685)	(5.75)
Number of permanent bridges repaired	77	250	(173)	(69.20)
Number of temporary bridges repaired	94	230	(136)	(59.13)
Projects completed	8	22	(14)	(63.63)
Backlog in ordinary ties replacement	557,177	545,212	11,965	2.19
Backlog in cubic meter of ballast placement	610,284	567,430	42,854	7.55
<b>NUMBER OF ROLLING STOCKS OPERATED AND MAINTAINED</b>				
Steam engine	1	1	-	-
Diesel electric locomotives				
Type 1000 (1,200 HP)	10	10	-	-
Type 1500 (1,200 HP)	10	10	-	-
Type 2000 (1,200 HP)	20	20	-	-
Type 2500 (1,050 HP)	13	13	-	-
Type 3000 (700 HP)	10	10	-	-
Type 4000 (500 HP)	10	10	-	-
Diesel hydraulic locomotives	3	3	-	-
Diesel rail motor and trailer cars	70	70	-	-
Passenger coaches	178	182	(4)	(2.20)
Baggage, mail & caboose cars	64	64	-	-
Service cars	86	86	-	-
<b>MAINTENANCE OF EQUIPMENT</b>				
Number of heavy repairs on DEL	23	32	(9)	(28.20)
Number of light repairs on DEL	33	61	(28)	(46.00)
DEL repair cost 100-kms. run	P 55.00	P 52.33	P 2.67	5.12
Diesel fuel consumed (gals.)	1,726,057	1,889,934	163,877	
Bunker fuel oil consumed (gals.)	62,612	88,620	(26,008)	(29.35)
Average diesel fuel consumed 100-kms. run (DEL)	59.0	57.4	1.6	2.77
Total locomotive kilometers (DEL)	1,938,268	3,168,796	(1,230,528)	(7.27)
<b>MAINTENANCE OF WAYS AND STRUCTURES</b>				
Number of heavy repairs, passenger cars	47	63	(16)	(25.40)
Number of light repairs, passenger cars	26	53	(27)	(50.94)
Passenger car repair cost/100-kms. run	P 6.80	P 8.61	(1.81)	(21.04)
Total passenger car kilometers run	P16,686,048	P15,859,620	P 826,428	5.21

Table XIX.2 - MISCELLANEOUS INFORMATION ON MAINTENANCE, STOCKS AND RAIL OPERATION;  
1966-69 AND 1969-70 - Continued

	1969-70	1968-69	Absolute Decrease (Decrease)	Percentage Increase (Decrease)
Number of heavy repairs on freight cars	13	5	8	160.00
Number of light repairs on freight cars	2	36	(34)	(94.44)
Freight car repair cost/100-kms. run	P 8.82	P 4.89	P 3.93	80.36
Total freight car kilometers	6,613,559	8,990,517	(2,376,958)	(26.44)
NUMBER OF TRAINS SCHEDULED DAILY				
Passenger trains north	41	22	(8)	(36.36)
Freight trains north	2	2	-	-
Passenger trains south	12	10	2	20.00
Freight trains south	4	8	(4)	(50.00)
Total scheduled trains daily	32	42	(10)	(23.81)
ACTUAL NUMBER OF TRAINS OPERATED				
Freight trains	8,363	10,905	(2,542)	(23.31)
Passenger trains	10,704	12,097	(1,393)	(11.51)
Total revenue trains	19,067	23,002	(3,935)	(17.10)
Other non-revenue trains	3,114	3,868	(754)	(19.05)
Total number of trains operated	22,181	26,870	(4,689)	(17.45)
TRAIN KILOMETERS				
Passenger train-kilometers (DEL)	1,475,090	1,461,159	13,931	00.95
Passenger train-kilometers (MC)	1,245,312	1,435,106	(189,794)	(13.23)
Total passenger train-kilometer	2,720,402	2,896,265	(175,863)	(6.40)
Freight train-kilometers	617,425	823,760	(206,335)	(25.04)
Total revenue train-kilometers	3,337,827	3,720,025	(382,198)	(10.27)
Non-revenue train-kilometers	94,254	121,368	(27,114)	(22.34)
Total train-kilometers	3,432,254	3,841,393	(409,312)	(10.65)
PASSENGER REVENUES				
Passengers revenues, 3rd class	P20,040,998.11	P18,329,989.70	P 1,711,008.41	9.33
Passenger revenues, 1st class	5,999,544.54	6,543,161.44	(543,616.90)	(8.30)
Total passenger revenues	P26,040,542.65	P24,873,151.14	P(1,167,391.51)	4.70
RAIL PASSENGER TRAFFIC				
Passengers carried, 3rd class	5,768,258	5,587,235	181,023	3.24
Passengers carried, 1st class	283,880	300,212	(16,332)	(5.44)
Total passengers carried	6,052,138	5,887,447	154,691	2.80
Passenger-kilometers, 3rd class	668,694,093	635,277,212	33,416,881	8.40
Passenger-kilometers, 1st class	105,440,150	113,228,645	(7,788,495)	(6.88)
Passenger-kilometers, Total	794,134,243	748,505,857	45,628,386	6.09
AVERAGES, PASSENGER SERVICE				
Revenue per passenger, 3rd class	P 3.474	P 3.281	P .193	5.88
Revenue per passenger, 1st class	P 21.134	P 21.795	P (.661)	(3.03)

## TRANSPORTATION

Table XIX.2 - MISCELLANEOUS INFORMATION ON MAINTENANCE, STOCKS AND RAIL OPERATION:  
1968-69 AND 1969-70 - Continued

	1969-70	1968-69	Absolute Increase (Decrease)	Percentage Increase (Decrease)
Revenue per passenger, both classes	P 4.302	P 4.225	P .077	1.82
Passenger journey, 3rd class (kms.)	119.39	113.70	5.69	5.00
Passenger journey, 1st class (kms.)	371.42	337.16	(5.74)	(1.52)
Passenger journey (kms.)	131.21	127.14	4.07	3.20
RAIL FREIGHT TRAFFIC				
Freight revenues	P 4,230,306.82	P 5,673,066.25	P (1,442,759.43)	(25.43)
Tons carried, revenue	441,152	564,238	(123,086)	(21.81)
Tons carried, non-revenue	31,008	18,836	12,172	64.62
Total tons carried, freight	472,160	583,174	(111,014)	(19.03)
FREIGHT TON-KILOMETERS				
Ton-kilometers, revenue freight	71,694,158	104,870,426	(33,176,268)	(31.63)
Ton-kilometers, non- revenue freight	4,335,398	2,105,820	2,229,578	105.87
Total ton-kilometers, freight	76,029,556	106,976,246	(30,946,690)	(28.93)
FREIGHT CAR LOADING AVERAGES				
Loaded cars per train	8.41	8.05	.36	4.47
Percent of average number of loaded cars to total cars per train	72.77	73.17	(.40)	(0.54)
Net tons per loaded car	13.81	15.80	(1.99)	(13.22)
Average revenue per ton	P 9.589	P 10.054	P (0.465)	(4.62)
Average revenue per ton- kilometer	0.0590	0.05441	0.0049	9.05
Average distance carried revenue freight (kms.)	162.52	185.86	(23.34)	(12.55)
REVENUE TONNAGE CARRIED BY CLASS OF COMMODITIES				
Agricultural products	154,370	248,232	(99,862)	(38.12)
Animal products	535	1,153	(618)	(53.60)
Mineral products	13,175	15,107	(1,932)	(12.79)
Forest products	94,022	99,768	(5,746)	(5.76)
Manufactures	152,053	157,999	(5,946)	(3.73)
Less carload	26,967	41,979	(15,012)	(35.76)
Total revenue freight	441,152	564,238	(123,086)	(21.81)
RAIL EXPRESS GOODS TRAFFIC				
Express revenues	P 3,515,168.65	P 2,954,679.56	P 560,489.09	18.96
Tons carried	76,598	62,171	14,427	23.20
Ton-kilometers, Express	25,556,928	18,974,058	6,582,870	34.69
Average distance carried, (kms.)	333.65	305.19	28.46	9.32
SUMMARY OF RAILWAYS OPERATING REVENUES				
Passengers revenues	P 26,040,542.65	P 24,873,151.14	P 1,167,391.51	4.70
Freight revenues	4,230,306.83	5,673,066.26	(1,442,759.43)	(25.43)
Express revenues	3,515,169.65	2,954,679.56	560,489.09	18.96
Other transportation revenues				
TOTAL RAILWAYS OPERATING REVENUES	P 34,702,985.11	P 34,520,551.29	P 182,433.82	0.53

Source: Philippine National Railway.

The inadequacy of bus units undermined the efforts to form an integrated rail-bus service that could approximate a door-to-door service for passengers and their luggage. The Benguet Auto Lines is still maintaining seven (7) freight and tank trucks in the service of full transport for most of the mining firms around Baguio while the Luzon Bus Lines operates (5) freight trucks with some delivery trucks complementing the freight and express service.

### LAND TRANSPORTATION

The Land Transportation Commission was created under Republic Act No. 4136, otherwise known as the Land Transportation and Traffic Code. The Commission is under the administrative supervision and control of a Commissioner who is charged with the enforcement of registration and traffic rules throughout the Philippines. The Commission is composed of Commissioner and one Deputy Commissioner who are appointed by the President with the consent of the Commission on Appointments of the Congress of the Philippines.

The Commissioner shall be responsible for the administration of this act and shall have the following powers and duties:

(1) with the approval of the Secretary of Public Works and Communications, to issue rules and regulations not in conflict with the provisions of R.A. 4136, prescribing the procedure for the examination, licensing and bonding of drivers, the registration and re-registration of motor vehicles, transfer of ownership, change of status, the replacements of lost certificates, licenses and badges, permits or number of plates; and to prescribe the minimum standards and specifications including allowable gross weight, allowable loads on tires, change of tire sizes, body design or carrying capacity subsequent to registration.

(2) To compile and arrange all applications, certificates, permits, licenses, and to enter, note and record transfers, notifications, suspensions, revocations, or judgment of conviction rendered by competent courts concerning violations of this Act.

(3) to examine and inspect any motor vehicle to determine whether such motor vehicle is registered, or is unsightly, unsafe, overloaded, improperly marked or equipped, or otherwise unfit to be operated because of possible excessive damage to highways, bridges and or culverts.

#### Motor Vehicle Registration

No motor vehicle shall use or operate on or upon any public highway of the Philippine unless it is registered with the Land Transportation Commission for the current year. Any registration of motor vehicles not renewed on or before the date fixed for different classifications, shall become delinquents and invalid:

(1) For hire vehicles — on or before the last working day of February.

(2) Private-owned motor vehicles — from March 1 to the last working day of May.

(3) All other motor vehicles — from June 1 to the last working day of June; except when the plates of such motor vehicles are returned to the Commission, or to the Office of the Motor Registrar.

The Commissioner of the Land Transportation Commission shall require dealers of motor vehicles to furnish him with such information and reports concerning the sale, importation, manufacture, number of stocks, transfer or other transactions affecting motor vehicles. No repair or change in the motor vehicle involving the exchange, elimination, effacing, or replacing of the original or registered serial or motor number as stamped or imprinted shall be allowed; and any motor vehicle with a trace of having its motor number altered or tampered with shall be refused registration or re-registration, unless such is satisfactorily explained and approved by the Commissioner.

Except as otherwise specifically provided in this Act, each application for renewal or registration of motor vehicles shall be accompanied by an annual registration fee in accordance with the following schedule:

Private automobiles with pneumatic rubber tires, an amount based on their respective shipping weight or factory weight as follows:

1,000 kilos or less .....	P 75.00
1,001 to 1,500 kilos .....	100.00
1,501 to 2,000 kilos .....	125.00
2,001 kilos and above .....	180.00

The factory or shipping weight of a private automobiles shall be obtained from the Red Book edited by the National Market Report, Inc. of the United States of America.

Private motor trucks, passenger buses and trailers with pneumatic tires, the sum of five pesos for every hundred kilograms of maximum allowable gross weight or fraction thereof.

Private motorcycles and scooters of two three wheels and bicycles with motor attachments, the sum of thirty pesos.

The fee for registration of motor vehicles for hire shall be sixty per cent more than the fee prescribed for private motor vehicles of the same category.

### Issuance of Certificate of Registration

A properly numbered certificate of registration shall be issued for each separate motor vehicle due for inspection and payment of corresponding registration fees. The said certificate shall be preserved and carried in the car by the owner as evidence of the registration of the motor vehicle described therein, and shall be presented with subsequent application for re-registration, transfer of ownership, or recording of encumbrances.

At all times, every motor vehicle shall display in conspicuous places, one in front and one in the rear thereof, the plate number issued for it. The plate number shall be kept clean and cared for, and shall be firmly affixed to the motor vehicle in such a manner as will make it entirely visible and always legible. Except in the case of dealer's number plates which may be used successively on various motor vehicles in stock, no person shall transfer number plates from one motor vehicle to another. No dealer's number plates shall be used on any motor vehicle after said vehicle has been sold and delivered to a purchaser, and no dealer shall allow such dealer's number plates to be used on any motor vehicle after its sale and delivery to a purchaser.

### Traffic Rules

Any person driving a motor vehicle on a highway shall drive the same at a careful and prudent speed, not greater nor less than is reasonable and proper, having due regard for the traffic, the width of the highway, and of any other condition then and there existing; and no person shall drive a motor vehicle upon a highway at such a speed as to endanger the life, limb and property of any person, nor at a speed greater than will permit him to bring the vehicle to a stop within the assured clear distance ahead. Subject to the provision of the preceding paragraph, the rate of speed of any motor vehicle shall not exceed the following:

	Maximum Allowable Speeds	
	Passenger Cars and Motorcycles	Motor Trucks and Buses
1. On open country roads with no "blind corner" not closely bordered by habitations.	50 km. per hour	30 km. per hour
2. On "through streets" or boulevard, clear of traffic, with no "blind corners", when so designated	40 km. per hour	20 km. per hour
3. On city and municipal streets, with light traffic, when not designated "through streets".	30 km. per hour	20 km. per hour
4. Through crowded streets, approaching intersections at "blind corners", passing school zones passing other vehicle which are stationary, or for similar circumstances.	20 km. per hour	20 km. per hour

The rates of speed prescribed above shall not apply to the following:

1. A physician or his driver when the former responds to emergency calls;
2. The driver of a hospital ambulance on the way to and from the place of accident or other emergency;
3. Any driver bringing a wounded or sick person for emergency treatment to a hospital, clinic, or any other similar place;
4. The driver of a motor vehicle belonging to the Armed Forces while in use for official purposes in time of riot, insurrection, or invasion;
5. The driver of a vehicle, when he or his passengers are in in pursuit of a criminal;
6. A law-enforcement officers who is trying to overtake a violator of traffic laws; and
7. The drivers officially operating motor vehicles of any fire department, provided that exemption shall not be construed to allow useless or unnecessary fast driving of drivers mentioned above.

### Classification of Highways

Public highways shall be properly classified for traffic purposes by the provincial board, municipal board or city council having jurisdiction over them, and said provincial board, municipal board or city council shall provide appropriate signs therefor, subject to the approval of the Commissioner. It shall be the duty of every provincial, city or municipal secretary to certify to the Commissioner the names, locations, and limits of all "through streets" designated as such.<sup>1</sup>

The Philippines, as of June 30, 1971, has a total road network of 73,531.56 kilometers compared to 67,525.50 kilometers the previous fiscal year. There was an increase of 6,006.06 kilometers. This is broken down as follows:

	1970	1971	Increase
Earth	16,327.54	19,699.80	3,372.26
Gravel	37,211.81	38,254.50	1,042.69
Asphalt	10,454.20	10,947.05	492.85
Arable	3,047.35	3,353.43	306.08
Miscellaneous	484.00	1,276.78	792.18
T O T A L	67,525.50	73,531.56	6,006.06

More than half a million motor vehicles ply the myriad streets and highways of the Philippines. Motor vehicles include cars, trucks, motorcycles, and trailers. Of these four categories, cars lead the way in numbers, totalling 285,063; trucks 183,097; motorcycles 97,679; and trailers 14,316; or a total of 580,155 motor vehicles registered as of fiscal year 1970-1971.

The increase of automobiles over a ten-year period is shown in the following tabulations:

Year	Number	Increase
1961	94,204	
1962	100,232	6,028
1963	127,475	27,243
1964	138,933	11,458
1965	150,345	11,412
1966	174,394	24,049
1967	219,957	45,563
1968	248,328	28,371
1969	272,183	23,855
1970	279,172	6,989

1/ R.A. 4136, Land Transportation and Traffic Code.

While the increase in number is to be expected year after year, the annual rate of growth is fluctuating. Calendar year 1967 appears to be the peak year as far as car sales are concerned. That year registered a record increase of 45,563 over the year immediately preceding. However, for the year 1968, a drop of about 40 per cent was noted. That year had only an increase of 28,371 over the year 1967. But it was in 1970 that the rate of increase really went on a slump. That year saw only an increase of 6,989 over the previous year. The figure for the fiscal year 1970-1971 is 285,063, as stated earlier. This means that as of June, 1971, there had been an increase of 5,891 over that in 1970.

Of the ten (10) regional agencies maintained by the Land Transportation Commission, Region #4, comprising the greater Manila Area, easily topped them all with a total of 178,166 registered cars, 78,525 registered trucks, 23,993 registered motorcycles, and 7,761 registered trailers; or a total of 288,445 registered vehicles.

Next is Region 2 which includes, among other places the cities of Angeles, Baguio, Dagupan and Olongapo, with a total of 71,659 registered motor vehicles. Third is Region 10, a portion of Mindanao which includes the cities of Butuan, Cotabato, Davao, and Marawi, with a total of 44,911. A close fourth is Region 7, which includes the cities of Calbayog, Cebu, Danao, Ormoc, and Tacloban, with a total of 43,092.

The rest are Region 5 with 31,063; Region 8 with 28,863; Region 9 with 26,864; Region 1 with 21,045; Region 6 with 12,868 and Region 3 with 11,345. (Table XIX.3). The following tables XIX.4, XIX.5, XIX.6, XIX.7, show the number of cars, trucks, motorcycles and trailers, registered by region according to type or classification.

Table XIX.3 -- MOTOR VEHICLE REGISTRATION,  
FISCAL YEAR 1970-1971

AGENCIES	TOTAL	CARS	TRUCKS	MC	TRAILERS
<b>GRAND TOTAL</b>	<b>285,155</b>	<b>285,063</b>	<b>181,097</b>	<b>97,679</b>	<b>14,316</b>
<b>REGION 1</b>	<b>21,045</b>	<b>6,756</b>	<b>3,128</b>	<b>4,770</b>	<b>1,391</b>
1. Batanes-Basco	21	5	2	14	-
2. Cebuana City	4,914	1,610	1,379	1,506	337
3. Cagayan-Tuguegarao	2,233	809	1,003	362	59
4. Cagayan-Ibalog	828	169	483	114	62
5. Ilocos-Iligan	4,639	1,540	2,225	632	242
6. Nueva Ecija-Balao	4,271	1,490	1,331	1,065	385
7. Nueva Ecija-Dagupan	2,470	684	362	553	271
8. Nueva Visayas-Baybong	1,669	449	735	442	25
<b>REGION 2</b>	<b>71,659</b>	<b>33,247</b>	<b>21,382</b>	<b>15,258</b>	<b>1,772</b>
1. Angeles City-Balibago	6,138	3,823	1,519	692	104
2. Angeles City Clark	9,901	8,172	700	956	73
3. Baguio City	4,329	3,057	1,117	139	16
4. Butuan-Palanga	3,275	1,228	1,194	727	126
5. Pangasinan-La Trinidad	1,282	410	789	74	9
6. Dagupan City	9,297	2,416	1,981	4,616	284
7. Kalina-Apayao-Taluk	454	95	233	118	8
8. Mt. Province-Bontoc	230	93	115	22	2
9. Olongapo City	9,059	3,493	4,257	1,188	121
10.	-	-	-	-	-
11. Pangasinan, San Fernando	8,925	4,191	3,394	832	508
12. Pangasinan, Lingayen	4,000	1,154	1,803	349	114
13. Pangasinan, Urdaneta	1,543	388	425	278	52
14. Tarlac, Tarlac	9,266	3,310	2,632	3,045	279
15. Zamboanga, Iba	3,386	1,266	1,079	1,006	35
16. San Carlos, Pangasinan	574	171	146	216	41
<b>REGION 3</b>	<b>11,345</b>	<b>4,235</b>	<b>3,814</b>	<b>2,878</b>	<b>418</b>
1. Abra, Bangued	1,055	428	271	341	15
2. Iloilo, Sur-Vigan	2,736	1,236	1,063	352	85
3. La Union-San Fernando	3,588	1,049	1,206	1,196	137
4. Laoag City	3,966	1,522	1,274	989	181
<b>REGION 4</b>	<b>288,445</b>	<b>178,166</b>	<b>78,525</b>	<b>23,993</b>	<b>7,761</b>
1. Bulacan, Malolos	12,301	5,608	3,867	1,387	1,439
2. Caloocan City	18,832	9,145	5,228	3,867	592
3. Cavite City	9,129	3,635	3,301	2,011	182
4. Cavite, Bacoor	2,549	1,132	1,003	352	62
5. Manila East Agency	23,947	16,135	5,660	2,019	133
6. Manila North Agency	23,629	16,530	7,308	1,253	538
7. Manila South Agency	23,622	17,319	5,184	1,075	244
8. Manila West Agency	14,352	9,117	4,207	644	384
9. Quezon City Old City Hall	20,254	12,876	6,123	1,368	487
10. Quezon City - La Loma	24,888	18,701	5,053	856	278
11. Rizal-Pasig	24,847	12,790	9,270	2,388	399
12. Rizal-Makati	14,634	10,251	3,081	1,193	109
13. Rizal-Marikina	11,545	6,765	3,385	1,310	85
14. Pilot-Central Office	48,531	30,003	12,813	2,956	2,757
15. Pasay City	12,585	8,159	3,042	1,314	70

# MOTOR VEHICLE REGISTRATION

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Table XIX.5 - MOTOR VEHICLE REGISTRATION,  
FISCAL YEAR 1970-1971 - Continued

AGENCY	TOTAL	CARS	TRUCKS	BUS	TRAILERS
<b>REGION 5</b>	<b>21,063</b>	<b>10,328</b>	<b>13,116</b>	<b>6,463</b>	<b>326</b>
1. Batangas-Batangas	3,971	1,438	1,918	517	78
2. Laguna-Sta. Cruz	4,114	1,606	1,662	697	149
3. Marikina-Bene	823	173	414	224	12
4. Lipa City	4,899	1,497	1,790	791	181
5. Mindoro Occ.-San Jose	1,899	213	646	434	6
6. Mindoro Oriental-Calapan	1,549	236	683	600	30
7. Palawan-Puerto Prinsesa	807	162	338	306	7
8. Quezon-Sanzen	874	192	344	383	15
9. San Pablo City	6,678	2,366	2,383	1,706	283
10. Lucena City	4,761	1,919	2,172	568	102
11. Lumbay, Batangas	1,978	736	832	297	63
<b>REGION 6</b>	<b>12,868</b>	<b>3,378</b>	<b>4,880</b>	<b>3,831</b>	<b>231</b>
1. Albay-Sinabotan	1,535	342	547	610	36
2. Albay-Tubao	1,253	311	517	403	22
3. Camarines Norte-Dao	1,677	378	645	633	21
4. Catanduanes-Virao	461	85	155	221	0
5. Legaspi City	2,135	882	644	547	62
6. Masbate, Masbate	610	103	310	196	1
7. Naga City	3,134	1,388	1,149	541	56
8. Sorsogon, Sorsogon	1,335	336	520	472	7
9. Camarines Sur-Iriga	728	153	333	212	30
<b>REGION 7</b>	<b>43,028</b>	<b>15,234</b>	<b>13,062</b>	<b>14,216</b>	<b>317</b>
1. Bulak, Tagbilaran	3,391	738	766	1,879	9
2. Cebu City	416	58	100	255	3
3. Cebu City	18,735	9,164	5,977	3,335	259
4. Davao City	4,541	1,308	2,024	961	48
5. Davao-Corriga	477	166	239	52	0
6. Davao-Palampas	264	40	84	129	3
7. Davao del Sur-Masina	1,735	249	484	994	8
8. Davao Oriental-Panagasa	6,547	1,339	1,335	3,807	46
9. Zambo City	2,632	647	963	967	75
10. Zambo-Catbalagan	485	154	211	40	0
11. Zambo-Northern-Sorsogon	539	82	182	275	0
12. Zambo-Northern-Catamban	594	59	164	371	0
13. Zambo City	2,782	1,002	512	1,141	127
14. Zambo, Davao Oriental	14	0	4	10	0
<b>REGION 8</b>	<b>28,863</b>	<b>8,211</b>	<b>13,492</b>	<b>6,846</b>	<b>301</b>
1. Aklan-Kalibo	1,623	305	520	896	2
2. Antique-San Jose	1,271	262	443	563	3
3. Bicol City	9,865	2,685	5,372	1,538	270
4. Bicol, Bicol	607	67	111	421	8
5. Bicol City	2,092	663	772	657	0
6. Cebu City	1,133	485	446	282	0
7. San Carlos City	2,085	583	912	587	3
8. Iloilo City	10,187	3,241	5,023	1,902	21
<b>REGION 9</b>	<b>26,864</b>	<b>3,307</b>	<b>2,175</b>	<b>8,242</b>	<b>340</b>
1. Basilan City	1,143	386	374	337	26
2. Cagayan de Oro City	6,008	2,391	2,158	1,369	90
3. Iligan City	3,341	1,618	1,122	534	67
4. Misamis Occidental-Oroquieta	1,949	514	643	786	6
5. Misamis Oriental-Cingog City	931	209	401	316	5
6. Zambo City	2,310	537	833	906	14
7. Zambo-Jale	822	393	294	134	1
8. Zamboanga City	4,342	1,337	971	1,365	69
9. Zamboanga del Norte-Dipolog	2,547	476	635	1,378	38
10. Zamboanga del Sur-Pagadian	1,649	372	590	674	13
11. Zamboanga del Sur-Ipil	1,822	274	1,114	423	11
<b>REGION 10</b>	<b>44,911</b>	<b>15,371</b>	<b>17,563</b>	<b>11,178</b>	<b>522</b>
1. Butuan, Malaybalay	2,368	350	1,680	229	9
2. Butuan City	4,233	1,205	1,278	1,739	11
3. Cotabato City	3,984	1,643	1,763	544	34
4. Cotabato-Kidapawan	2,041	461	818	746	16
5. Cotabato-Tasurong	2,568	245	912	1,392	13
6. Davao City	15,470	7,910	4,671	2,534	335
7. Davao del Norte-Sagay	719	182	375	175	27
8. Davao Oriental-Mati	1,382	475	689	336	22
9. Davao del Sur-Digos	2,124	680	845	579	38
10. General Santos	5,277	1,081	2,224	1,930	42
11. Lungsod del Sur-Malabang	686	289	346	49	11
12. Marawi City	764	274	549	136	5
13. Marawi del Sur-Surigao	1,126	289	814	284	19
14. Marawi del Norte-Surigao	1,341	319	541	489	12
15. San Francisco-Agusan del Sur	834	228	438	165	3

SOURCE: Land Transportation Commission



## TRANSPORTATION

Table XIX. 4 - TOTAL NUMBER OF CARS REGISTERED BY REGION; FISCAL YEAR 1970-1971

Region/Province	Total	H	L	B	J	RP	TX	AC	PV	G	EX-C	OFF	DIP	TOT.
<b>Grand total</b>	<b>285,063</b>	<b>33,272</b>	<b>67,234</b>	<b>67,915</b>	<b>95,602</b>	<b>6,195</b>	<b>9,766</b>	<b>10,957</b>	<b>392</b>	<b>152</b>	<b>1,990</b>	<b>947</b>	<b>605</b>	<b>22</b>
<b>REGION 1</b>	<b>6,756</b>	<b>337</b>	<b>813</b>	<b>637</b>	<b>4,675</b>	<b>210</b>	-	<b>52</b>	<b>6</b>	-	<b>6</b>	-	-	-
1. Batanes-Isao	5	-	-	1	1	3	-	-	-	-	5	-	-	-
2. Cabanatuan City	1,610	74	236	229	999	67	-	-	-	-	-	-	-	-
3. Cagayan-Pagadian	809	34	92	34	512	67	-	-	-	-	-	-	-	-
4. Cagayan-Idiog	169	5	15	9	136	-	-	-	-	-	-	-	-	-
5. Isabela-Ilagan	1,540	106	174	87	1,095	25	-	47	6	-	-	-	-	-
6. Nueva Balile-Baloo	1,490	72	137	138	1,111	31	-	-	-	-	1	-	-	-
7. Nueva Balile-Capan	684	25	68	52	535	4	-	-	-	-	-	-	-	-
8. Nueva Vizcaya-Bayombong	449	21	91	57	284	13	-	-	-	-	-	-	-	-
<b>REGION 2</b>	<b>33,247</b>	<b>6,320</b>	<b>7,730</b>	<b>5,328</b>	<b>10,514</b>	<b>958</b>	<b>687</b>	<b>1,103</b>	<b>3</b>	<b>33</b>	<b>471</b>	-	-	-
1. Angeles City-Balibago	3,823	431	840	613	1,636	44	-	257	-	-	2	-	-	-
2. Angeles City-Clark	8,172	3,627	2,954	1,062	18	407	-	-	-	-	104	-	-	-
3. Baguio City	3,057	272	553	808	336	107	235	645	3	20	78	-	-	-
4. Batuan-Balanga	1,228	152	228	211	607	26	-	-	-	-	-	-	-	-
5. Benguet-IA Trinidad	410	61	116	74	151	6	2	-	-	-	-	-	-	-
6. Benguet City	2,416	210	365	376	1,582	44	-	39	-	-	-	-	-	-
7. Kalinga-Apayao-Tabuk	95	10	20	10	44	11	-	-	-	-	-	-	-	-
8. Mt. Province-Bontoc	93	13	14	15	41	10	-	-	-	-	-	-	-	-
9. Olongapo City-Subic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Olongapo City	3,493	696	890	620	774	51	430	48	-	13	11	-	-	-
11. Pangasinan-San Fernando	4,191	383	722	650	2,345	51	20	20	-	-	-	-	-	-
12. Pangasinan-Iligayen	1,134	122	171	172	635	25	-	2	-	-	7	-	-	-
13. Pangasinan-Urdaneta	388	40	75	54	217	2	-	-	-	-	-	-	-	-
14. Tarlac-Maricao	3,310	369	563	470	1,766	51	-	88	-	-	3	-	-	-
15. Zamboales-Iba	1,266	111	230	173	489	21	-	-	-	-	266	-	-	-
16. San Carlos, Pangasinan	171	23	29	20	97	2	-	-	-	-	-	-	-	-
<b>REGION 3</b>	<b>4,235</b>	<b>354</b>	<b>624</b>	<b>427</b>	<b>2,667</b>	<b>111</b>	<b>8</b>	<b>43</b>	-	-	-	<b>1</b>	-	-
1. Abra-Bangued	428	26	51	44	276	31	-	-	-	-	-	-	-	-
2. Ilocos Sur-Vigan	1,236	105	193	109	816	10	-	3	-	-	-	-	-	-
3. IA Union-San Fernando	1,049	139	231	180	475	16	8	-	-	-	-	-	-	-
4. Ilocos City	1,522	84	149	94	1,100	54	-	40	-	-	-	1	-	-

Table XIX. 4 - TOTAL NUMBER OF CARS REGISTERED BY REGION, FISCAL YEAR 1970-71 - Continued

Region/Province	Total	H	L	B	J	RP	TX	AC	FV	G	EX-C	OFF	DIP	TOT.
<b>REGION 4</b>	<b>178,166</b>	<b>21,139</b>	<b>47,273</b>	<b>49,303</b>	<b>42,185</b>	<b>3,409</b>	<b>7,317</b>	<b>4,541</b>	-	<b>40</b>	<b>1,382</b>	<b>943</b>	<b>605</b>	<b>29</b>
1. Batangas-Batangas	5,608	311	783	694	3,747	57	8	-	-	-	6	2	-	-
2. Caloocan City	9,145	873	2,311	1,984	3,859	14	23	81	-	-	-	-	-	-
3. Cavite City	3,635	541	952	742	1,276	58	10	56	-	-	-	-	-	-
4. Cavite-Bacoor	1,132	165	258	200	509	-	-	-	-	-	-	-	-	-
5. Manila East Agency	16,135	2,131	5,621	5,953	2,012	6	86	324	-	2	-	-	-	-
6. Manila North Agency	16,530	2,678	2,901	3,039	5,239	6	1,331	313	-	-	3	-	-	-
7. Manila South Agency	17,519	2,462	6,488	5,648	2,055	5	424	229	-	10	-	-	-	-
8. Manila West Agency	9,117	1,090	2,053	2,827	2,467	81	578	97	-	19	15	-	-	-
9. Quezon City (Old City)	12,876	1,544	3,953	3,595	2,546	48	676	647	-	9	11	-	-	-
10. Quezon City (La Loma)	18,701	1,321	4,000	5,146	7,741	114	392	250	-	-	-	-	-	-
11. Rizal-Pasig	12,790	1,528	3,862	3,854	2,781	32	75	146	-	-	-	-	-	-
12. Rizal-Makati	10,251	1,483	3,569	4,007	1,139	10	58	39	-	-	-	-	-	-
13. Rizal-Markina	6,765	572	1,173	3,454	1,459	2	69	369	-	-	1,343	941	605	29
14. Pilot Central Office	30,003	3,234	6,149	5,473	4,142	2,973	3,287	1,856	-	-	4	-	-	-
15. Pasay City	8,159	1,206	2,400	2,687	1,393	2	69	369	-	-	-	-	-	-
<b>REGION 5</b>	<b>10,558</b>	<b>1,229</b>	<b>1,929</b>	<b>1,594</b>	<b>5,175</b>	<b>163</b>	<b>12</b>	<b>74</b>	<b>68</b>	<b>68</b>	<b>114</b>	<b>-</b>	<b>-</b>	<b>-</b>
1. Batangas-Batangas	1,458	210	335	355	396	34	-	51	68	-	9	-	-	-
2. Laguna-Sta. Cruz	1,606	206	356	235	696	90	-	-	-	-	105	-	-	-
3. Boca-Marinduque	173	11	27	19	95	20	-	1	-	-	-	-	-	-
4. Mindoro Occidental-San Jose	213	6	21	13	157	16	-	-	-	-	-	-	-	-
5. Mindoro Oriental-Calapan	236	14	30	28	156	6	-	2	-	-	-	-	-	-
6. Lipa	1,497	154	299	222	815	7	-	-	-	-	-	-	-	-
7. Palawan-Puerto Princesa	162	18	15	13	106	9	-	1	-	-	-	-	-	-
8. Quezon-Guimara	192	24	43	29	94	2	-	-	-	-	-	-	-	-
9. San Pablo City	2,366	313	330	325	1,361	23	12	10	-	-	2	-	-	-
10. Iloilo City	1,919	220	354	247	1,072	16	-	9	-	-	-	-	-	-
11. Iloilo-Batangas	736	51	135	110	427	-	-	-	-	-	-	-	-	-
<b>REGION 6</b>	<b>3,978</b>	<b>438</b>	<b>921</b>	<b>810</b>	<b>1,454</b>	<b>110</b>	<b>11</b>	<b>161</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
1. Albay-Quinsaban	342	31	92	73	137	8	-	1	-	-	-	-	-	-
2. Albay-Jabaco	511	49	87	67	108	-	-	-	-	-	-	-	-	-
3. Camarines Norte-Dao	578	44	90	48	186	10	-	-	-	-	-	-	-	-
4. Catanduanes-Virao	85	5	12	17	36	15	-	-	-	-	-	-	-	-
5. Legaspi City	882	94	234	213	309	8	11	10	3	-	-	-	-	-
6. Masbate-Masbate	109	11	6	6	71	9	-	-	-	-	-	-	-	-
7. Sorsogon	1,388	136	316	271	462	53	-	150	-	-	-	-	-	-
8. Sorsogon-Sorsogon	336	35	104	63	131	3	-	-	-	-	-	-	-	-
9. Samar-Les Bus-Driga	153	33	50	52	14	4	-	-	-	-	-	-	-	-

Table XIX. 4 - TOTAL NUMBER OF CABS REGISTERED BY REGION: FISCAL YEAR 1970-71 - Continued

Region/Province	Total	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
<b>REGION 7</b>	<b>15,234</b>	<b>1,132</b>	<b>2,957</b>	<b>2,491</b>	<b>2,372</b>	<b>429</b>	<b>1,045</b>	<b>716</b>	<b>62</b>	<b>10</b>																	
1. Bohol-Tagbilaran	738	67	214	73	336	48	-	-	-	-																	
2. Calbayog City	58	2	2	8	42	4	-	-	-	-																	
3. Cebu City	9,164	747	2,022	2,316	2,375	139	906	397	62	-																	
4. Davao City	1,508	85	242	398	528	29	139	67	-	-																	
5. Leyte-Carigara	166	8	2	21	90	10	-	-	-	-																	
6. Leyte-Palampog	48	1	7	1	39	-	-	-	-	-																	
7. Leyte-del Sur-Masina	249	9	28	25	154	33	-	-	-	-																	
8. Negros Oriental-Dumaguete	1,279	129	270	271	599	58	-	-	-	-																	
9. Ormoc City	647	41	56	51	433	10	-	-	-	-																	
10. Samar-Catbalogan	134	4	5	4	130	9	-	-	-	-																	
11. Samar-Eastern-Borongan	82	-	3	4	56	17	-	-	-	-																	
12. Samar-Northern-Catmanan	59	4	6	8	33	8	-	-	-	-																	
13. Tacloban City	1,002	42	105	113	960	64	-	-	-	-																	
14. Zamboanga Oriental	-	-	-	-	-	-	-	-	-	-																	
<b>REGION 8</b>	<b>8,211</b>	<b>760</b>	<b>2,033</b>	<b>1,927</b>	<b>2,139</b>	<b>179</b>	<b>467</b>	<b>32</b>	<b>31</b>	<b>40</b>																	
1. Abilan-Capiz	305	35	122	39	106	3	-	-	-	-																	
2. Antigua-San Jose	262	18	52	41	131	20	-	-	-	-																	
3. Bacolod City	2,685	271	570	691	776	117	162	27	31	40																	
4. Zamboanga	67	3	6	1	47	5	-	-	-	-																	
5. Zamboanga City	665	38	210	148	237	8	-	-	-	-																	
6. San Carlos City	585	70	141	85	285	4	-	-	-	-																	
7. Ocala City	405	37	63	132	173	4	-	-	-	-																	
8. Tiedlo City	3,241	268	871	792	983	22	305	-	-	-																	
<b>REGION 9</b>	<b>9,107</b>	<b>411</b>	<b>1,162</b>	<b>1,313</b>	<b>4,027</b>	<b>336</b>	<b>76</b>	<b>3,507</b>	<b>67</b>	<b>2</b>																	
1. Basilan City	386	7	27	24	183	39	-	-	-	-																	
2. Cagayan de Oro City	2,391	141	313	492	794	183	23	532	12	-																	
3. Iligan City	1,618	67	194	282	516	46	10	458	36	5																	
4. Misamis Occidental-Croquieta	314	15	25	38	371	12	-	-	-	-																	
5. Misamis Oriental-Gingoog City	209	8	25	30	102	4	-	-	-	-																	
6. Ozamis City	537	19	79	82	962	26	-	-	-	-																	
7. Sulu-Yolo	393	8	67	58	231	95	-	-	-	-																	
8. Zamboanga City	1,337	96	265	342	723	33	43	364	9	-																	
9. Zamboanga del Norte-Dipolog	476	22	55	45	339	17	-	-	-	-																	
10. Zamboanga del Sur-Pagadian	372	14	47	44	232	32	-	-	-	-																	
11. Zamboanga del Sur-Ipil	274	14	35	48	174	3	-	-	-	-																	

Table XII. 4 --TOTAL NUMBER OF CARS REGISTERED BY REGION: FISCAL YEAR 1970-71 - Continued

Region/Province	Total	H	L	B	J	RP	TX	AC	FV	O	EX-C	OFF	DIP	TOT.
<b>REGION 10</b>	<b>15,271</b>	<b>945</b>	<b>1,710</b>	<b>2,865</b>	<b>6,592</b>	<b>390</b>	<b>143</b>	<b>2,728</b>	<b>152</b>	<b>41</b>	<b>4</b>	<b>1</b>	<b>-</b>	<b>-</b>
1. Bukidnon-Malaybalay	350	26	60	59	167	30	-	8	-	-	-	-	-	-
2. Butuan City	1,205	111	153	190	682	21	1	45	2	-	-	-	-	-
3. Cotabato City	1,643	71	149	248	630	57	6	482	-	-	-	-	-	-
4. Cotabato-Kidapawan	461	14	37	34	263	20	-	92	-	-	1	-	-	-
5. Cotabato-Panay	245	14	35	32	161	5	-	-	-	-	-	-	-	-
6. Davao City	7,910	443	879	1,776	2,777	139	136	1,759	-	-	1	-	-	-
7. Davao del Norte-Tugum	182	14	10	15	55	15	-	58	1	41	-	-	-	-
8. Davao Oriental-Mati	475	35	42	75	231	11	-	82	-	-	1	-	-	-
9. Davao del Sur-Digos	680	47	84	97	360	17	-	75	-	-	-	-	-	-
10. Gen. Santos City	1,081	96	185	140	610	12	-	98	-	-	-	-	-	-
11. Lanao del Sur-Malabang	229	9	9	25	98	3	-	-	85	-	-	-	-	-
12. Marawi City	274	3	28	65	100	14	-	-	65	-	1	-	-	-
13. Surigao del Sur-Tundag	289	28	41	56	154	9	-	-	-	-	-	1	-	-
14. Surigao del Norte-Surigao	319	13	35	41	181	22	-	29	-	-	-	-	-	-
15. San Francisco-Agusan del Sur	228	21	27	18	145	17	-	-	-	-	-	-	-	-

Source: Land Transportation Commission

## TRANSPORTATION

Table XIX.5 - TOTAL NUMBER OF TRUCKS REGISTERED, BY REGION, FISCAL YEAR 1970-1971

Region/Agency	Total	T	S	RPT	TH	FUJ	FOB	SB	U	EX-TRUCK	OFF	TC	RPS	LSB	TOT BUS
<b>Grand Total</b>	<b>183,097</b>	<b>89,175</b>	<b>35,817</b>	<b>4,088</b>	<b>7,253</b>	<b>33,116</b>	<b>11,598</b>	<b>537</b>	<b>749</b>	<b>672</b>	-	<b>7</b>	<b>2</b>	<b>2</b>	<b>13</b>
<b>REGION 1</b>	<b>8,138</b>	<b>5,856</b>	<b>1,074</b>	<b>62</b>	<b>200</b>	<b>537</b>	<b>329</b>	-	<b>30</b>	-	-	-	-	-	-
1. Batanes-Basco	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-
2. Cabaatuan City	1,379	943	211	22	31	65	97	-	-	-	-	-	-	-	-
3. Cagayan-Pagadian	1,003	673	34	10	84	90	108	-	10	-	-	-	-	-	-
4. Cagayan-Abulog	483	380	34	1	7	59	2	-	-	-	-	-	-	-	-
5. Isabela-Iligan	2,225	1,675	62	11	69	316	76	-	16	-	-	-	-	-	-
6. Nueva Ecija-Balao	1,331	1,081	242	7	1	-	-	-	-	-	-	-	-	-	-
7. Nueva Ecija-Caban	962	618	326	5	1	8	-	-	4	-	-	-	-	-	-
8. Nueva Vizcaya-Bayombong	753	485	161	6	7	48	46	-	-	-	-	-	-	-	-
<b>REGION 2</b>	<b>21,342</b>	<b>11,092</b>	<b>3,077</b>	<b>922</b>	<b>480</b>	<b>3,938</b>	<b>1,719</b>	<b>3</b>	<b>144</b>	<b>1</b>	-	-	<b>3</b>	-	-
1. Angeles City-Balibago	1,519	823	306	2	87	241	40	-	20	-	-	-	-	-	-
2. Angeles City	700	77	-	620	-	-	-	-	-	-	-	-	-	-	-
3. Baguio City	1,117	405	161	100	92	222	132	-	4	1	-	-	3	-	-
4. Baguio-Balanga	1,194	806	134	21	66	64	97	-	6	-	-	-	-	-	-
5. Benguet-La Trinidad	1,789	414	26	3	20	34	288	-	1	-	-	-	-	-	-
6. Dagupan City	1,981	1,227	255	7	37	276	151	-	28	-	-	-	-	-	-
7. Palang-Palayo-Tabuk	233	165	26	3	1	23	15	-	-	-	-	-	-	-	-
8. Mt. Province-Bontoc	113	82	3	1	1	2	24	-	-	-	-	-	-	-	-
9. Olongapo City	4,257	917	586	52	88	2,319	287	-	8	-	-	-	-	-	-
10. Olongapo City-Subio	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. Pangasinan-San Fernando	3,394	2,070	834	15	38	193	222	-	22	-	-	-	-	-	-
12. Pangasinan-Lingayen	1,803	1,075	120	42	14	227	293	-	32	-	-	-	-	-	-
13. Pangasinan-Urdaneta	425	391	32	-	-	1	-	-	1	-	-	-	-	-	-
14. Tarlac-Tarlac	2,632	1,850	525	8	30	122	77	-	20	-	-	-	-	-	-
15. Zamboales-Iba	1,079	666	54	47	6	211	93	-	2	-	-	-	-	-	-
16. San Carlos-Pangasinan	146	127	15	1	-	3	-	-	-	-	-	-	-	-	-
<b>REGION 3</b>	<b>2,814</b>	<b>1,593</b>	<b>490</b>	<b>65</b>	<b>226</b>	<b>860</b>	<b>536</b>	-	<b>5</b>	<b>32</b>	-	-	-	-	-
1. Abra-Bangad	271	84	89	10	58	-	30	-	-	-	-	-	-	-	-
2. Ilocos Sur-Vigan	1,063	416	181	5	47	224	190	-	-	-	-	-	-	-	-
3. La Union-San Fernando	1,206	583	163	20	39	232	127	-	3	39	-	-	-	-	-
4. Laoag City	1,274	510	57	30	82	404	189	-	2	-	-	-	-	-	-

Region/Agency	Total	T	S	RPT	TH	FUL	PUB	ED	V	EX-TRUCK	OFF	TC	1 2	LAB	NOV 80
<b>SECTION 4</b>															
1. Balcones-Spillos	78,952	28,916	29,717	1,811	2,902	14,284	2,892	461	328	62	-	1	-	2	13
2. Calcoene City	3,667	2,165	1,025	33	171	224	229	-	20	-	-	-	-	-	-
3. Carrizo City	5,228	2,993	1,778	16	166	616	197	24	34	-	-	-	-	-	-
4. Carrizo City	3,901	1,205	817	21	53	888	279	-	34	-	-	-	-	-	-
5. Carrizo-Cerrito	1,005	475	329	-	10	189	329	-	-	-	-	-	-	-	-
6. Carrizo-Cerrito	2,006	2,006	2,006	2	275	609	268	2	53	-	-	1	-	-	-
7. Carrizo North Agency	7,508	2,561	1,997	6	589	1,861	451	44	52	-	-	6	-	-	-
8. Carrizo South Agency	5,184	2,544	2,165	-	253	253	136	5	8	-	-	-	-	-	-
9. Carrizo West Agency	4,207	1,539	1,810	4	158	452	231	31	25	-	-	-	-	-	-
10. Carrizo City Hall (Old City Hall)	6,123	1,831	1,365	36	319	2,306	208	37	2	-	-	-	-	-	-
11. Carrizo City (No Loan)	5,053	2,092	1,771	2	185	935	69	31	2	-	-	-	-	-	-
12. Carrizo City	9,270	3,243	3,786	35	154	1,589	94	148	31	-	-	-	-	-	-
13. Carrizo City	3,081	1,164	1,423	1	107	290	266	148	31	-	-	-	-	-	-
14. Carrizo City	3,595	1,095	1,245	22	47	821	147	5	3	-	-	-	-	-	-
15. Carrizo City	12,813	3,702	2,332	1,631	1,358	2,712	277	155	15	-	-	-	-	-	-
16. Carrizo City	3,042	841	1,490	2	127	539	20	3	7	-	-	-	-	-	-
<b>SECTION 5</b>															
1. Carrizo City	13,116	1,724	2,920	70	193	251	1,171	6	68	3	-	-	-	-	-
2. Carrizo City	1,918	1,042	482	3	75	128	173	-	15	-	-	-	-	-	-
3. Carrizo City	1,662	994	203	27	16	127	272	-	20	-	-	-	-	-	-
4. Carrizo City	414	173	31	2	4	98	106	-	-	-	-	-	-	-	-
5. Carrizo City	646	303	46	4	7	146	138	-	-	-	-	-	-	-	-
6. Carrizo City	683	440	24	2	2	184	32	-	1	-	-	-	-	-	-
7. Carrizo City	1,075	475	632	14	21	18	27	-	-	-	-	-	-	-	-
8. Carrizo City	1,790	1,075	720	11	5	77	15	-	-	-	-	-	-	-	-
9. Carrizo City	1,352	198	126	1	1	11	17	-	-	-	-	-	-	-	-
10. Carrizo City	1,448	135	119	1	28	56	179	2	18	-	-	-	-	-	-
11. Carrizo City	2,323	1,448	610	2	2	80	209	4	12	-	-	-	-	-	-
12. Carrizo City	2,172	1,244	588	4	31	90	20	4	-	-	-	-	-	-	-
13. Carrizo City	832	612	164	-	-	-	-	-	-	-	-	-	-	-	-
<b>SECTION 6</b>															
1. Carrizo City	4,880	2,354	2,40	101	23	804	1,037	8	23	-	-	-	-	-	-
2. Carrizo City	300	30	30	15	2	44	152	-	4	-	-	-	-	-	-
3. Carrizo City	547	258	20	3	13	37	97	-	-	-	-	-	-	-	-
4. Carrizo City	517	258	34	17	11	198	97	-	1	-	-	-	-	-	-
5. Carrizo City	645	287	34	9	2	41									

Table XIX.5 - TOTAL NUMBER OF TRUCKS REGISTERED, BY REGION: FISCAL YEAR 1970-1971 - Continued

Region/Agency	Total	T	S	RPT	TH	FUJ	PUB	SB	U	EX-TRUCK	OFF	TC	RPS	LAB	FOU BUS
<b>REGION 7</b>	<b>13,065</b>	<b>5,570</b>	<b>891</b>	<b>233</b>	<b>218</b>	<b>2,828</b>	<b>1,031</b>	<b>27</b>	<b>27</b>	-	-	-	-	-	-
1. Bohol-Tagbilaran	766	466	33	21	22	10	214	-	-	-	-	-	-	-	-
2. Calbayog City	100	65	5	3	5	18	6	-	-	-	-	-	-	-	-
3. Cebu City	5,977	2,978	595	88	175	1,778	325	12	26	-	-	-	-	-	-
4. Davao City	2,024	614	65	10	14	1,214	107	-	-	-	-	-	-	-	-
5. Leyte-Carigara	259	136	3	-	-	86	34	-	-	-	-	-	-	-	-
6. Leyte-Palamporan	84	35	-	-	5	41	3	-	-	-	-	-	-	-	-
7. Leyte del Sur-Yasasin	484	223	21	39	4	152	43	-	2	-	-	-	-	-	-
8. Negros Oriental-Dumaguete	1,335	834	13	61	45	203	155	-	4	-	-	-	-	-	-
9. Oncon City	211	735	34	3	12	133	19	23	4	-	-	-	-	-	-
10. Samar-Cathalogan	211	105	963	28	17	21	34	-	1	-	-	-	-	-	-
11. Samar-Eastern-Borongan	182	60	2	3	3	80	32	-	-	-	-	-	-	-	-
12. Samar-Northern-Cataganman	164	62	10	4	2	50	38	-	-	-	-	-	-	-	-
13. Tacloban City	512	253	107	71	16	42	21	2	-	-	-	-	-	-	-
14. Bais-Negros Oriental	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>REGION 8</b>	<b>33,492</b>	<b>7,554</b>	<b>286</b>	<b>111</b>	<b>163</b>	<b>4,354</b>	<b>1,178</b>	<b>-</b>	<b>53</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
1. Alisan-Capiz	420	161	29	4	6	152	58	-	10	-	-	-	-	-	-
2. Antique-San Jose	443	175	15	15	2	147	88	-	1	-	-	-	-	-	-
3. Bantigue City	5,572	2,932	130	75	109	1,523	589	-	14	-	-	-	-	-	-
4. Bantigue-Olongan	111	52	16	1	-	26	16	-	-	-	-	-	-	-	-
5. Bantigue City	772	588	16	4	3	114	43	-	4	-	-	-	-	-	-
6. San Carlos City	446	88	14	1	14	18	309	-	2	-	-	-	-	-	-
7. Cadis City	912	377	10	5	9	469	32	-	10	-	-	-	-	-	-
8. Iloilo City	5,023	3,181	56	6	20	1,705	43	-	12	-	-	-	-	-	-
<b>REGION 9</b>	<b>2,175</b>	<b>5,604</b>	<b>534</b>	<b>227</b>	<b>587</b>	<b>1,323</b>	<b>865</b>	<b>2</b>	<b>33</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
1. Basilan City	374	147	40	61	19	67	40	-	-	-	-	-	-	-	-
2. Cagayan de Oro City	2,158	1,247	151	59	175	260	258	-	8	-	-	-	-	-	-
3. Iligan City	1,122	386	76	19	147	89	86	-	5	-	-	-	-	-	-
4. Misamis Occidental-Oroquieta	643	386	6	1	42	121	80	-	7	-	-	-	-	-	-
5. Misamis Oriental-Gingoog City	401	196	12	3	20	114	54	2	-	-	-	-	-	-	-
6. Ozamis City	653	512	18	-	19	190	111	-	3	-	-	-	-	-	-
7. Sultan-Jolo	294	166	65	18	1	31	13	-	-	-	-	-	-	-	-
8. Zamboanga City	971	597	68	29	61	155	55	-	6	-	-	-	-	-	-
9. Zamboanga del Norte	655	413	29	26	32	104	49	-	2	-	-	-	-	-	-
10. Zamboanga del Sur-Pagadian	590	420	31	11	44	59	23	-	2	-	-	-	-	-	-
11. Zamboanga del Sur	1,114	820	38	-	27	133	96	-	-	-	-	-	-	-	-

Table VII.5 - TOTAL NUMBER OF TRUCKS REGISTERED, BY REGION: FISCAL YEAR 1970-1971 - Continued

Region/Agency	Total	T	S	RPT	TH	PUJ	PUB	ED	V	EX-TRUCK	OFF	TC	RFS	LES	TOTL BUS
<b>REGION 10</b>	<b>17,563</b>	<b>12,109</b>	<b>578</b>	<b>366</b>	<b>1,131</b>	<b>2,447</b>	<b>880</b>	<b>20</b>	<b>28</b>	<b>4</b>	-	-	-	-	-
1. Bukidnon-Malaybalay	1,680	1,173	28	11	251	130	87	-	-	-	-	-	-	-	-
2. Butuan City	1,278	823	27	1	71	242	106	-	6	-	-	-	-	-	-
3. Cotabato City	1,743	1,144	111	52	114	224	113	-	1	-	-	-	-	-	-
4. Cotabato-Kidapawan	818	529	19	12	34	187	35	-	2	-	-	-	-	-	-
5. Cotabato-Maumong	912	777	1	5	29	92	2	-	3	-	-	-	-	-	-
6. Davao City	4,671	3,500	218	82	413	423	203	20	12	-	-	-	-	-	-
7. Davao del Norte-Pagum	375	192	11	38	51	72	29	-	2	-	-	-	-	-	-
8. Davao Oriental-Igati	689	559	15	3	11	99	-	-	2	-	-	-	-	-	-
9. Davao del Sur-Digos	845	508	12	2	13	134	176	-	-	-	-	-	-	-	-
10. Gen. Santos City	2,224	1,612	64	57	71	397	23	-	-	-	-	-	-	-	-
11. Lanao del Sur-Malabang	346	259	5	2	3	71	6	-	-	-	-	-	-	-	-
12. Marawi City	349	134	14	11	62	107	21	-	-	-	-	-	-	-	-
13. Surigao del Sur-Pandag	614	383	24	35	10	119	43	-	-	-	-	-	-	-	-
14. Surigao del Norte-Surigao	541	304	19	48	9	126	35	-	-	-	-	-	-	-	-
15. San Francisco-Aguasan del Sur	458	410	10	7	9	21	1	-	-	-	-	-	-	-	-

Source: Land Transportation Commission.



Table XIX.6 — TOTAL NUMBER OF MOTORCYCLES REGISTERED BY REGION: FISCAL YEAR 1970-1971

Agency	Total	MD	RMPC	MPC	MCH	MD-BK
<b>Grand Total</b>	<b>97,679</b>	<b>69,477</b>	<b>993</b>	<b>22,590</b>	<b>4,403</b>	<b>216</b>
<b>REGION 1</b>	<b>4,770</b>	<b>4,502</b>	<b>20</b>	<b>247</b>	<b>-</b>	<b>1</b>
1. Batanes-Basco	14	14	-	-	-	-
2. Cabanatuan City	1,588	1,582	5	-	-	1
3. Cagayan-Tuguegarao	362	209	1	152	-	-
4. Cagayan-Abulog	114	96	3	15	-	-
5. Isabela-Ilagan	632	550	2	80	-	-
6. Nueva Ecija-Baloo	1,065	1,059	6	-	-	-
7. Nueva Ecija-Capan	553	552	1	-	-	-
8. Nueva Vizcaya-Bayombong	442	440	2	-	-	-
<b>REGION 2</b>	<b>15,258</b>	<b>10,572</b>	<b>34</b>	<b>4,501</b>	<b>9</b>	<b>142</b>
1. Angeles City-Balibago	692	692	-	-	-	-
2. Angeles City-Clark	956	956	-	-	-	-
3. Baguio City	139	139	-	-	-	-
4. Bataan-Balanga	727	255	2	470	-	-
5. Benguet-La Trinidad	74	74	-	-	-	-
6. Dagupan City	4,616	1,876	4	2,736	-	-
7. Kalinga-Apayao-Tabuk	118	111	7	-	-	-
8. Mt. Province-Bontoc	22	16	6	-	-	-
9. Olongapo-Subic	-	-	-	-	-	-
10. Olongapo City	1,188	854	-	334	-	-
11. Pampanga-San Fernando	832	795	5	22	9	1
12. Pangasinan-Lingayen	949	736	2	211	-	-
13. Pangasinan-Urdaneta	678	505	-	173	-	-
14. Tarlac-Tarlac	3,645	2,984	6	55	-	-
15. Zambales-Iba	1,006	503	2	360	-	141
16. Pangasinan-San Carlos	216	76	-	140	-	-
<b>REGION 3</b>	<b>2,878</b>	<b>1,908</b>	<b>26</b>	<b>581</b>	<b>363</b>	<b>-</b>
1. Abra-Bangued	341	110	5	226	-	-
2. Ilocos Sur-Vigan	352	316	2	34	-	-
3. La Union-San Fernando	1,196	567	16	319	294	-
4. Laoag City	989	915	3	2	69	-
<b>REGION 4</b>	<b>23,993</b>	<b>19,670</b>	<b>491</b>	<b>3,157</b>	<b>669</b>	<b>6</b>
1. Bulacan-Malolos	1,587	1,320	6	54	7	-
2. Calococan City	3,867	3,337	2	598	-	-
3. Cavite City	2,011	1,519	1	491	-	-
4. Cavite-Bacoar	352	307	-	45	-	-
5. Manila East Agency	2,019	1,880	-	139	-	-
6. Manila North Agency	1,253	1,216	-	37	-	-
7. Manila South Agency	1,075	1,047	-	22	-	6
8. Manila West Agency	644	634	2	7	1	-
9. Quezon City (Old City Hall)	1,368	1,037	45	271	15	-
10. Quezon City (La Loma)	856	825	-	31	-	-
11. Rizal-Pasig	2,588	1,573	17	798	-	-
12. Rizal-Makati	1,193	959	-	234	-	-
13. Rizal-Marikina	1,310	834	-	476	-	-
14. Pilot- (Central Office)	2,956	2,097	189	24	646	-
15. Pasay City	1,314	1,085	229	-	-	-
<b>REGION 5</b>	<b>6,463</b>	<b>3,728</b>	<b>56</b>	<b>2,522</b>	<b>157</b>	<b>-</b>
1. Batangas-Batangas	517	253	17	245	2	-
2. Laguna-Sta. Cruz	697	338	13	346	-	-
3. Marinduque-Boac	227	116	3	64	41	-
4. Mindoro Occidental-San Jose	434	122	4	308	-	-
5. Mindoro Oriental	600	581	-	19	-	-
6. Lipa City	791	359	1	421	10	-
7. Palawan-Puerto Princesa	306	154	3	46	103	-
8. Quezon-Gumaca	323	190	-	133	-	-
9. San Pablo City	1,706	904	3	799	-	-
10. Lucena City	568	520	9	34	1	-
11. Lumbay-Batangas	297	191	3	103	-	-

## REGISTERED MOTORCYCLES

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Table XIX.6 - TOTAL NUMBER OF MOTORCYCLES REGISTERED BY REGION: FISCAL YEAR 1970-1971 - Continued

Agency	Total	MC	RPMC	MTG	MCH	MC-EK
<b>REGION 6</b>						
	<u>3,835</u>	<u>2,255</u>	<u>50</u>	<u>1,330</u>	<u>200</u>	-
1. Albay-Quinobatan	610	318	4	288	-	-
2. Albay-Tabaco	403	315	-	88	-	-
3. Camarines Norte-Daet	633	546	9	12	66	-
4. Catanduanes-Virao	221	73	6	142	-	-
5. Legaspi City	547	153	13	381	-	-
6. Masbate-Masbate	196	78	4	114	-	-
7. Naga City	541	447	10	19	65	-
8. Sorsogon-Sorsogon	472	179	4	233	56	-
9. Camarines Sur-Iriga	215	146	-	53	13	-
<b>REGION 7</b>						
	<u>14,216</u>	<u>9,728</u>	<u>120</u>	<u>3,603</u>	<u>765</u>	-
1. Bohol-Tagbilaran	1,879	1,372	15	492	-	-
2. Calbayog City	255	205	4	25	21	-
3. Cebu City	3,335	2,657	20	658	-	-
4. Danao City	961	837	1	122	1	-
5. Leyte-Carigara	52	52	-	-	-	-
6. Leyte-Palompou	129	92	-	11	26	-
7. Leyte del Sur-Maasin	994	752	8	234	-	-
8. Negros Oriental-Dumaguete	3,807	2,054	9	1,744	-	-
9. Ormoc City	967	491	4	29	443	-
10. Samar-Catbalogan	40	17	-	23	-	-
11. Samar-Eastern-Borongan	275	73	1	201	-	-
12. Samar-Northern-Catarman	371	246	46	60	19	-
13. Tacloban City	1,141	874	12	-	255	-
14. Negros Oriental-Bais	10	6	-	4	-	-
<b>REGION 8</b>						
	<u>6,846</u>	<u>4,932</u>	<u>54</u>	<u>1,552</u>	<u>308</u>	-
1. Aklan-Capiz	896	295	8	592	1	-
2. Antique-San Jose	563	378	5	81	99	-
3. Bacolod City	1,538	1,369	23	6	140	-
4. Romblon-Odiongan	421	296	5	120	-	-
5. Roxas City	657	207	6	397	47	-
6. San Carlos City	587	578	-	9	-	-
7. Cadiz City	282	282	-	-	-	-
8. Iloilo City	1,902	1,527	7	347	21	-
<b>REGION 9</b>						
	<u>8,242</u>	<u>5,045</u>	<u>64</u>	<u>2,595</u>	<u>537</u>	<u>1</u>
1. Basilan City	357	355	-	-	2	-
2. Cagayan de Oro City	1,369	1,002	32	331	4	-
3. Iligan City	534	490	8	36	-	-
4. Misamis Occidental-Oroquieta	786	461	1	324	-	-
5. Misamis Oriental-Gingoog City	316	206	-	67	43	-
6. Ozamis City	906	389	1	516	-	-
7. Sulu-Jolo	134	132	2	-	-	-
8. Zamboanga City	1,365	733	14	184	433	1
9. Zamboanga del Norte-Dipolog	1,378	575	4	788	11	-
10. Zamboanga del Sur-Pagadian	674	503	1	126	44	-
11. Zamboanga del Sur-Ipil	423	199	1	223	-	-
<b>REGION 10</b>						
	<u>11,178</u>	<u>7,137</u>	<u>78</u>	<u>2,502</u>	<u>1,395</u>	<u>66</u>
1. Bukidnon-Malaybalay	229	229	-	-	-	-
2. Butuan City	1,739	932	-	62	745	-
3. Cotabato City	544	440	10	76	18	-
4. Cotabato-Kidapawan	746	592	14	105	35	-
5. Cotabato-Tourong	1,392	413	2	918	59	-
6. Davao City	2,534	2,213	13	146	96	66
7. Davao del Norte-Tagum	1,335	105	6	15	9	-
8. Davao Oriental-Mati	336	109	2	188	37	-
9. Davao del Sur-Digos	579	578	1	-	-	-
10. General Santos City	1,930	858	18	989	65	-
11. Lanao del Sur-Malabang	40	40	-	-	-	-
12. Marawi City	136	132	-	-	4	-
13. Surigao del Sur-Tandag	204	129	11	2	62	-
14. Surigao del Norte-Surigao	469	202	1	1	265	-
15. Agusan del Sur-San Francisco	165	165	-	-	-	-

Source: Land Transportation Commission

## TRANSPORTATION

Table XIX.7 - TOTAL NUMBER OF TRAILERS REGISTERED, BY REGION: FISCAL YEAR 1970-1971

Region/Agency	Total	TRAJ	TRM	TRHB	TRLB	TNTX	TRIG	HBB	HLB	HTX	EX-TR	RPTB
Grand total	<u>14,316</u>	<u>9,904</u>	<u>1,253</u>	<u>1,423</u>	<u>263</u>	<u>216</u>	<u>95</u>	<u>430</u>	<u>126</u>	<u>47</u>	-	<u>562</u>
REGION 1	<u>1,381</u>	<u>1,249</u>	<u>5</u>	<u>40</u>	<u>74</u>	<u>1</u>	<u>2</u>	<u>8</u>	-	-	-	<u>2</u>
1. Batanes-Basco	-	-	-	-	-	-	-	-	-	-	-	-
2. Cabanatuan City	337	334	-	-	-	-	-	-	-	-	-	-
3. Cagayan-Naguasao	59	28	-	6	25	-	-	1	-	-	-	2
4. Cagayan-Abulog	62	4	3	4	49	-	2	-	-	-	-	-
5. Isabela-Cagayan	242	206	-	28	-	1	-	7	-	-	-	-
6. Nueva Ecija-Baloc	385	381	2	2	-	-	-	-	-	-	-	-
7. Nueva Ecija-Capan	271	271	-	-	-	-	-	-	-	-	-	-
8. Nueva Vizcaya-Bayombong	25	25	-	-	-	-	-	-	-	-	-	-
REGION 2	<u>1,772</u>	<u>1,518</u>	<u>27</u>	<u>68</u>	<u>17</u>	<u>10</u>	-	<u>19</u>	<u>3</u>	<u>33</u>	-	<u>17</u>
1. Angeles City-Balibago	104	82	1	1	-	-	-	-	-	20	-	-
2. Angeles City-Clark	73	-	1	2	6	-	-	-	-	-	-	73
3. Baguio City	16	7	1	9	6	1	-	4	1	8	-	-
4. Batuan-Balanga	126	95	2	3	-	-	-	-	-	-	-	-
5. Benguet-La Trinidad	9	9	-	-	-	-	-	-	-	-	-	-
6. Dagupan City	284	281	-	3	-	-	-	-	-	-	-	-
7. Kalinga-Apayap-Tabuk	8	8	-	-	-	-	-	-	-	-	-	-
8. Mt. Province-Bontoc	2	2	-	-	-	-	-	-	-	-	-	-
9. Olongapo-Subic	-	-	-	-	-	-	-	-	-	-	-	-
10. Olongapo City	121	102	5	6	4	1	-	1	1	-	-	1
11. Pangasinan-San Fernando	508	474	13	7	1	6	-	4	1	3	-	-
12. Pangasinan-Lingayen	114	105	-	2	-	2	-	2	1	2	-	-
13. Pangasinan-Urdaneta	52	52	-	-	-	-	-	8	-	-	-	-
14. Tarlac-Tarlac	279	235	5	31	-	-	-	-	-	-	-	3
15. Zambales-Tba	35	25	-	7	-	-	-	-	-	-	-	-
16. San Carlos-Pangasinan	41	41	-	-	-	-	-	-	-	-	-	-
REGION 3	<u>418</u>	<u>383</u>	<u>3</u>	<u>12</u>	-	<u>14</u>	-	<u>4</u>	-	-	-	<u>2</u>
1. Abra-Bangad	15	14	-	-	-	-	-	-	-	-	-	1
2. Ilocos Sur-Vigan	85	85	-	-	-	-	-	-	-	-	-	-
3. La Union-San Fernando	137	109	3	10	-	14	-	-	-	-	-	1
4. Laoag City	181	175	-	2	-	-	-	4	-	-	-	-

Table XIX-7 --TOTAL NUMBER OF TRAILERS REGISTERED, BY REGION: FISCAL YEAR 1970-1971 - Continued

Region/Agency	Total	TRAJ	TRM	TRHD	TRLS	TRTK	TRIG	TRB	HLB	HTK	EX-TR	RPR
<b>REGION 4</b>	<b>7,761</b>	<b>4,544</b>	<b>873</b>	<b>1,082</b>	<b>115</b>	<b>132</b>	-	<b>394</b>	<b>121</b>	<b>14</b>	-	<b>480</b>
1. Bulacan-Malolos	1,439	1,389	8	10	2	15	-	-	1	-	-	-
2. Caloocan City	592	486	5	56	1	8	-	14	5	-	-	-
3. Cavite City	182	182	-	-	-	-	-	31	-	-	-	-
4. Cavite-Bacoor	62	62	-	-	-	-	-	-	-	-	-	-
5. Manila East Agency	133	74	3	22	3	10	-	18	3	-	-	-
6. Manila North Agency	538	432	28	23	9	8	-	34	4	-	-	-
7. Manila South Agency	244	124	15	70	11	6	-	12	6	-	-	-
8. Manila West Agency	384	337	8	18	1	6	-	3	11	-	-	-
9. Quezon City (Old City Hall)	487	213	30	32	8	1	-	183	26	14	-	-
10. Quezon City (La Loma)	278	219	18	32	7	-	-	2	14	-	-	-
11. Rizal-Pasig	399	231	34	66	27	13	-	14	14	-	-	-
12. Rizal-Makati	109	33	6	24	3	4	-	25	2	-	-	-
13. Rizal-Marikina	85	65	4	7	6	1	-	2	2	-	-	-
14. Pilot-Central Office	2,759	639	732	725	34	63	-	49	37	-	-	480
15. Pasay City	70	58	2	-	3	-	-	7	-	-	-	-
<b>REGION 5</b>	<b>926</b>	<b>819</b>	<b>12</b>	<b>62</b>	<b>2</b>	<b>28</b>	-	-	-	-	-	<b>2</b>
1. Batangas-Batangas	78	70	-	3	2	3	-	-	-	-	-	-
2. Laguna-Sta. Cruz	149	141	5	-	2	2	-	-	-	-	-	1
3. Iloilo-Mandur	12	4	-	7	1	-	-	-	-	-	-	-
4. Mindoro Occidental-San Jose	6	3	-	-	-	3	-	-	-	-	-	-
5. Mindoro Oriental-Calapan	30	30	-	-	-	-	-	-	-	-	-	-
6. Iloilo City	181	178	2	1	-	-	-	-	-	-	-	1
7. Palawan-Puerto Princesa	7	3	1	-	-	2	-	-	-	-	-	-
8. Quezon-Gumaca	15	15	-	-	-	-	-	-	-	-	-	-
9. San Pablo City	283	264	4	10	-	5	-	-	-	-	-	-
10. Lucena City	102	54	-	38	-	10	-	-	-	-	-	-
11. Lemery-Batangas	63	57	-	3	-	3	-	-	-	-	-	-
<b>REGION 6</b>	<b>235</b>	<b>206</b>	<b>13</b>	<b>13</b>	-	<b>1</b>	-	-	-	-	-	<b>2</b>
1. Albay-Guinsahan	36	36	-	-	-	-	-	-	-	-	-	-
2. Albay-Guinsahan	22	22	-	-	-	-	-	-	-	-	-	-
3. Camarines Norte-Daet	21	20	-	-	-	-	-	-	-	-	-	1
4. Catanduanes-Virao	-	-	-	-	-	-	-	-	-	-	-	-
5. Legaspi City	62	39	11	11	-	1	-	-	-	-	-	-
6. Masbate-Masbate	1	1	-	-	-	-	-	-	-	-	-	1
7. Naga City	56	53	-	2	-	-	-	-	-	-	-	-
8. Sorsogon-Sorsogon	7	6	1	-	-	-	-	-	-	-	-	-
9. Camarines Sur-Naga	30	29	1	-	-	-	-	-	-	-	-	-

Table XIX.7 - TOTAL NUMBER OF TRAILERS REGISTERED, BY REGION, FISCAL YEAR 1970-1971 - Continued

Region/Agency	Total	TRJ	TSM	TRHB	TRLB	TRTK	TRIG	HBB	HUB	HTK	EX-TR	RPTB
<b>REGION 7</b>	<b>577</b>	<b>476</b>	<b>29</b>	<b>27</b>	<b>2</b>	<b>12</b>	<b>19</b>	-	-	-	-	<b>2</b>
1. Bohol-Tagbilaran	8	8	-	-	-	-	-	-	-	-	-	-
2. Calbayog City	3	2	-	-	-	-	-	-	-	-	-	-
3. Cebu City	259	218	6	24	2	8	1	-	-	-	-	1
4. Danao City	48	48	-	-	-	-	-	-	-	-	-	-
5. Leyte-Carigara	-	-	-	-	-	-	-	-	-	-	-	-
6. Leyte-Palompon	3	3	-	-	-	-	-	-	-	-	-	-
7. Leyte del Sur-Maasin	8	7	-	-	-	-	-	-	-	-	-	1
8. Negros Oriental-Dumaguete	46	28	-	-	-	-	18	-	-	-	-	-
9. Ormoc City	75	56	22	13	-	4	-	-	-	-	-	-
10. Samar-Catbalogan	-	-	-	-	-	-	-	-	-	-	-	-
11. Samar-Northern-Catarman	-	-	-	-	-	-	-	-	-	-	-	-
12. Samar-Eastern-Borongan	-	-	-	-	-	-	-	-	-	-	-	-
13. Tacloban City	117	126	1	-	-	-	-	-	-	-	-	-
14. Bais-Negros Oriental	-	-	-	-	-	-	-	-	-	-	-	-
<b>REGION 8</b>	<b>307</b>	<b>76</b>	<b>230</b>	<b>1</b>	-	-	-	-	-	-	-	-
1. Aklan-Capiz	2	2	-	-	-	-	-	-	-	-	-	-
2. Antique-San Jose	3	3	-	-	-	-	-	-	-	-	-	-
3. Bacolod City	270	40	230	-	-	-	-	-	-	-	-	-
4. Romblon-Odiongan	8	8	-	-	-	-	-	-	-	-	-	-
5. Roxas City	-	-	-	-	-	-	-	-	-	-	-	-
6. San Carlos City	3	2	-	1	-	-	-	-	-	-	-	-
7. Cadis City	-	-	-	-	-	-	-	-	-	-	-	-
8. Iloilo City	21	21	-	-	-	-	-	-	-	-	-	-
<b>REGION 9</b>	<b>340</b>	<b>272</b>	<b>32</b>	<b>5</b>	<b>12</b>	<b>2</b>	<b>13</b>	<b>2</b>	<b>2</b>	-	-	-
1. Basilan City	26	18	6	-	2	-	-	-	-	-	-	-
2. Cagayan de Oro City	90	82	3	-	1	2	2	-	-	-	-	-
3. Iligan City	67	90	17	1	8	-	7	-	-	-	-	-
4. Misamis Occidental-Oroquieta	6	6	-	-	-	-	-	-	-	-	-	-
5. Misamis Oriental-Gingoog City	5	5	-	-	-	-	-	-	-	-	-	-
6. Ozamis City	14	11	1	-	-	-	2	-	-	-	-	-
7. Sulu-Jolo	1	1	1	-	-	-	-	-	-	-	-	-
8. Zamboanga City	69	64	4	-	1	-	-	-	-	-	-	-
9. Zamboanga del Norte-Dipolog	38	38	-	-	-	-	-	-	-	-	-	-
10. Zamboanga del Sur-Ipil	11	9	1	1	-	-	-	-	-	-	-	-
11. Zamboanga del Sur-Pagadian	13	8	-	3	-	-	2	-	-	-	-	-

Table XIX.7 - TOTAL NUMBER OF TRAILERS REGISTERED, BY REGION: FISCAL YEAR 1970-1971 - Continued

Region/Agency	Total	TRJ	TRM	TRHB	TRLB	TRTK	TRIG	RHD	HLB	HTK	EX-TR	RPTB
<b>REGION 10</b>	<b>599</b>	<b>361</b>	<b>29</b>	<b>100</b>	<b>40</b>	<b>13</b>	<b>51</b>	<b>3</b>	-	-	-	<b>2</b>
1. Bukidnon-Malaybalay	9	9	-	-	-	-	-	-	-	-	-	-
2. Butuan City	11	4	1	-	-	-	-	-	-	-	-	-
3. Cotabato City	34	22	8	2	-	-	6	-	-	-	-	-
4. Cotabato-Kidapawan	16	15	-	-	-	-	2	-	-	-	-	-
5. Davao City	395	248	8	58	13	7	21	-	-	-	-	1
6. Cotabato-Mourong	13	4	4	-	1	-	4	-	-	-	-	-
7. Davao del Norte-Magum	27	7	-	16	2	2	-	-	-	-	-	-
8. Davao Oriental-Mati	22	3	1	-	10	-	8	-	-	-	-	-
9. Davao del Sur-Digos	20	18	1	-	-	-	1	-	-	-	-	-
10. Gen. Santos City	42	13	6	17	-	3	2	-	-	-	-	1
11. Lanas del Sur-Malabang	11	7	-	-	-	-	4	-	-	-	-	-
12. Marawi City	5	2	-	-	-	-	3	-	-	-	-	-
13. Surigao del Norte-Surigao	12	8	-	-	-	1	-	3	-	-	-	-
14. Surigao del Sur-Tandag	19	-	-	7	12	-	-	-	-	-	-	-
15. San Francisco-Agusan del Sur	3	1	-	-	2	-	-	-	-	-	-	-

Source: Land Transportation Commission

### Motor Vehicle Traffic Accident

There were 6,403 motor vehicle traffic accidents and 114,884 apprehensions reported in fiscal year 1970-1971. Statistics for FY 1970-1971, reported by place of occurrence, are given in Table XIX.9, but it should be noted that, although motorists are required by law to report accidents, complete statistics of these accidents are not available for all places, as in the case of Caloocan City, Cavite City, Pasay City, etc. where there were no reports at all of any accidents.

Table XIX.8 — TOTAL NUMBER OF APPREHENSION AND ACCIDENTS, BY REGION:  
FISCAL YEAR 1970-1971

Region/Province	Apprehension	Accident
Grand total	<u>115,528</u>	<u>6,403</u>
REGION 1	<u>811</u>	<u>59</u>
1. Batanes-Basco	-	-
2. Cabanatuan City	259	44
3. Cagayan-Tuguegarao	127	15
4. Cagayan-Abulog	-	-
5. Isabela-Ilagan	237	-
6. Nueva Ecija-Baloo	3	-
7. Nueva Ecija-Capan	13	-
8. Nueva Vizcaya-Bayombong	172	-
REGION 2	<u>1,092</u>	<u>449</u>
1. Angeles City-Balibago	-	222
2. Angeles City-Clark	-	-
3. Baguio City	186	3
4. Bataan-Balanga	212	-
5. Benguet-La Trinidad	28	-
6. Dagupan City	125	202
7. Kalinga-Apayao-Tabuk	49	9
8. Mt. Province-Bontoc	99	-
9. Olongapo City	51	3
10. Olongapo City-Subic	-	-
11. Pampanga-San Fernando	8	-
12. Pangasinan-Lingayen	69	-
13. Pangasinan-Urdaneta	190	-
14. Tarlac-Tarlac	-	9
15. Zambales-Iba	75	1
REGION 3	<u>289</u>	<u>21</u>
1. Abra-Bangued	13	-
2. Ilocos Sur-Vigan	3	-
3. La Union-San Fernando	155	6
4. Laoag City	118	15
REGION 4	<u>96,316</u>	<u>4,553</u>
1. Bulacan-Malolos	361	9
2. Caloocan City	1,513	-
3. Cavite City	242	-
4. Bacoor-Cavite	26	-
5. Manila East Agency	83,653	3,524
6. Manila North Agency		
7. Manila South Agency		
8. Manila West Agency		
9. Queson City (Old City Hall)	313	-
10. Queson City (La Loma)	-	-
11. Rizal-Pasig	225	-
12. Rizal-Marikina	13	-
13. Pilot-Central Office	9,909	1,020
14. Pasay City	61	-

**Table XIX.8 —TOTAL NUMBER OF APPREHENSION AND ACCIDENTS, BY REGION:**  
**FISCAL YEAR 1970-1971 - Continued**

Region/Province	Apprehension	Accident
<b>REGION 5</b>	<b><u>2,422</u></b>	<b><u>91</u></b>
1. Batangas-Batangas	194	-
2. Laguna-Sta. Cruz	228	56
3. Boac-Marinduque	146	16
4. Mindoro Occidental-San Jose	35	8
5. Mindoro Oriental-Calapan	-	-
6. Lipa City	59	3
7. Palawan-Puerto Princesa	999	7
8. Quezon-Gumaca	62	-
9. San Pablo City	248	-
10. Lucena City	422	1
11. Lemery-Batangas	29	-
<b>REGION 6</b>	<b><u>1,357</u></b>	<b><u>30</u></b>
1. Albay-Guinobatan	265	7
2. Albay-Tabaco	44	5
3. Camarines Norte-Daet	269	9
4. Catanduanes-Virao	44	-
5. Legaspi City	140	-
6. Masbate-Masbate	125	-
7. Naga City	301	-
8. Sorsogon-Sorsogon	101	8
9. Camarines Sur-Iriga	68	1
<b>REGION 7</b>	<b><u>2,309</u></b>	<b><u>753</u></b>
1. Bohol-Tagbilaran	-	-
2. Calbayog City	16	4
3. Cebu City	912	365
4. Danao City	-	-
5. Leyte-Carigara	10	-
6. Leyte-Palompon	2	1
7. Leyte del Sur-Maasin	52	26
8. Negros Oriental-Dumaguete	872	41
9. Ormoc City	294	314
10. Samar-Catbalogan	25	1
11. Samar-Eastern-Borongan	61	-
12. Samar-Northern-Catarman	-	-
13. Tacloban City	65	1
<b>REGION 8</b>	<b><u>2,445</u></b>	<b><u>255</u></b>
1. Aklan-Kalibo	15	-
2. Antique-San Jose	159	4
3. Bacolod City	1,401	153
4. Romblon-Odiongan	51	-
5. Roxas City	235	98
6. San Carlos City	174	-
7. Iloilo City	410	-



Table XIX.8 — TOTAL NUMBER OF APPREHENSION AND ACCIDENTS, BY REGION:  
FISCAL YEAR 1970-1971 - Continued

Region/Province	Apprehension	Accident
REGION 9	<u>2,579</u>	<u>34</u>
1. Basilan City	50	-
2. Cagayan de Oro City	516	-
3. Iligan City	410	-
4. Misamis Occidental-Oroquieta	210	-
5. Misamis Oriental-Gingoog City	-	-
6. Ozamis City	286	1
7. Sulu-Jolo	88	11
8. Zamboanga City	300	-
9. Zamboanga del Norte-Dipolog	364	8
10. Zamboanga del Sur-Pagadian	333	11
11. Zamboanga del Sur-Ipil	22	3
REGION 10	<u>5,908</u>	<u>158</u>
1. Bukidnon-Malaybalay	108	4
2. Butuan City	493	-
3. Cotabato City	1,199	3
4. Cotabato-Kidapawan	582	2
5. Cotabato-Tacurong	261	3
6. Davao City	577	3
7. Davao del Norte-Tagum	576	52
8. Davao Oriental-Mati	204	6
9. Davao del Sur-Digos	300	18
10. General Santos City	923	-
11. Lanao del Sur-Malabang	21	-
12. Marawi City	57	4
13. Surigao del Sur-Tandag	225	-
14. Surigao del Norte-Surigao	239	63
15. San Francisco-Agusan del Sur	143	-

Source: Land Transportation Commission.

TRAFFIC ACCIDENTS

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Table XIX.9 —MOTOR VEHICLE TRAFFIC ACCIDENT, CITY OF MANILA: 1969

Accidents Reported	Jan.-June 1st half	July-Dec. 2nd half	Total	Monthly Average	Percent Distribution
Persons killed	59	71	130	10.8	
Persons injured	1,364	1,301	2,665	22.2	
<u>Nature of accidents</u>	<u>2,380</u>	<u>2,309</u>	<u>4,689</u>	<u>390.7</u>	<u>100.00</u>
Fatal	58	69	127	10.5	2.70
Non-fatal injury	878	890	1,768	147.3	37.70
Property damaged only	1,444	1,350	2,794	232.8	59.60
<u>Types of accidents-Motor vehicle vs.</u>	<u>2,380</u>	<u>2,309</u>	<u>4,689</u>	<u>390.7</u>	<u>100.00</u>
Pedestrians	469	577	1,046	87.2	22.30
Other motor vehicle	1,719	1,555	3,274	272.8	69.90
Horse drawn vehicle	25	15	40	3.3	.80
Railroad train	-	-	-	-	-
Bicycle	24	13	37	3.1	.80
Push cart	8	9	17	1.4	.40
Fixed object	8	14	22	1.8	.50
Over-turned in road	6	14	20	1.7	.40
Ran off road	50	50	100	8.3	2.10
Other non-collision	49	53	102	8.5	2.20
Miscellaneous	22	9	31	2.6	.60

Source: Manila Metropolitan Police, Traffic Control Bureau.

Table XIX.9.a —MOTOR VEHICLE TRAFFIC ACCIDENT, CITY OF MANILA: 1970

Accidents Reported	Jan.-June 1st half	July-Dec. 2nd half	Total	Monthly Average	Percent Distribution
Persons killed	47	61	108	9.0	
Persons injured	1,112	1,010	2,122	176.1	
<u>Nature of accidents</u>	<u>1,720</u>	<u>1,770</u>	<u>3,490</u>	<u>290.8</u>	<u>100.00</u>
Fatal	47	57	104	8.6	3.00
Non-fatal injury	787	738	1,525	127.1	43.70
Property damaged only	886	975	1,861	155.1	53.30
<u>Types of accidents-Motor vehicle vs.</u>	<u>1,720</u>	<u>1,770</u>	<u>3,490</u>	<u>290.8</u>	<u>100.00</u>
Pedestrians	448	467	915	76.2	26.20
Other motor vehicle	1,111	1,171	2,282	190.1	65.40
Horse drawn vehicle	11	15	26	2.2	.70
Railroad train	1	1	2	.2	.00
Bicycle	26	16	42	3.5	1.20
Push cart	6	3	9	.8	.30
Fixed object	5	8	13	1.1	.40
Over-turned in road	7	9	16	1.3	.50
Ran off road	44	29	73	6.1	2.10
Other non-collision	42	41	83	6.9	2.40
Miscellaneous	19	10	29	2.4	.80

Source: Manila Metropolitan Police, Traffic Control Bureau.

Table XIX.9.b —MOTOR VEHICLE TRAFFIC ACCIDENT, CITY OF MANILA: 1971

Accidents Reported	Jan.-June 1st half	July-Dec. 2nd half	Total	Monthly Average	Percent Distribution
Persons killed	64	68	132	11.0	
Persons injured	1,035	1,128	2,163	180.3	
<u>Nature of accidents</u>	<u>1,738</u>	<u>2,087</u>	<u>3,825</u>	<u>318.8</u>	<u>100.00</u>
Fatal	62	62	124	10.4	3.30
Non-fatal injury	709	790	1,499	124.9	39.00
Property damaged only	967	1,235	2,202	183.5	57.70
<u>Types of accidents—Motor vehicle vs.</u>	<u>1,738</u>	<u>2,087</u>	<u>3,825</u>	<u>318.8</u>	<u>100.00</u>
Pedestrians	417	490	907	75.4	23.80
Other motor vehicle	1,159	1,422	2,581	215.5	67.50
Horse drawn vehicle	26	34	60	5.0	1.60
Railroad train	-	-	-	-	-
Bicycle	26	18	44	3.6	1.10
Push cart	5	13	18	1.5	.40
Fixed object	6	10	16	1.3	.40
Over-turned in road	8	5	13	1.1	.30
Ran off road	36	30	66	5.5	1.80
Other non-collision	40	54	94	7.8	2.40
Miscellaneous	15	11	26	2.1	.70

Source: Manila Metropolitan Police, Traffic Control Bureau.

## CIVIL AVIATION

Since air transport is the fastest means of conventional travel, it is particularly adapted as a means of transport in the Philippine Archipelago. It requires weeks and days to reach most places, even important cities in the Archipelago, by water transportation while it takes only hours and minutes by jet, the fastest in modern air travel. The steady increase in air traffic of the country and the rapid modernization of aircrafts require modern facilities, airports, and terminal buildings. Modern navigational facilities must be available in all airports to ensure the safety of passengers and the efficient airfrat operations both on the ground and in the air.

### The Civil Aeronautics Board

Regulation of air transportation in the Philippines was started with the passage of Act No. 3909 by the Ninth Philippine Legislature, and which was approved on November 20, 1931. Under this Act, the Secretary of Commerce and Communications was given the authority to administer and enforce the provision of the law. On December 5, 1932, Act No. 3909 was amended by Act No. 3996, which created the Division of Aeronautics. In accordance with this act, the Division of Aeronautics is responsible for the administration of civil aviation under the general supervision of the Secretary of Public Works and Communications.

The Department of Finance and the Department of Public Works and Communications jointly issued on October 1, 1934, by virtue of Administrative Order No. 309, Aeronautics Bulletin No. 3, "Regulation Governing Entry and Clearance of Aircraft". For almost four years the Division of Aeronautics was the sole government agency charged with the administration of civil aviation; it was however dissolved in 1936.

Commonwealth Act No. 168, approved on November 12, 1936, created the Bureau of Aeronautics under the Department of Public Works and Communications. The Director of the Bureau of Aeronautics was charged with the responsibility and the authority to carry out the purpose and intent of the provisions of the said act.

On May 11, 1940, the general control and supervision of the Bureau of Aeronautics was transferred to the Department of National Defense by virtue of the approval of Commonwealth Act No. 529. This transfer included the power to issue permits and licenses to operators engaged in air commerce.

On July 30, 1946, the President of the Philippines promulgated Administrative Order No. 7, creating the Civil Aeronautics Commission, composed of the Secretary of Public Works and Communications as Chairman, the Commissioner of Public Service and the Director of the Bureau of Aeronautics as members. This body was charged with the responsibility of studying applications for permits and recommending issuance of permits and licenses for the establishments of civil airways or routes. The reports and recommendations submitted to the President by the Commission are passed through the Secretary of National Defense for appropriate action.

Administrative Order No. 7 was amended by Administrative Order No. 10 on August 24, 1946, granting the agency the additional duty of processing applications of foreign companies to engage in air commerce in the country. Then on October 4, 1947, the Civil Aeronautics Board (CAB) and the Civil Aeronautics Administration (CAA) were created by virtue of Executive Order No. 94, abolishing the Civil Aeronautics Commission and the Bureau of Aeronautics and transferring the functions and responsibilities of the Civil Aeronautics Commission to the Board while those of the Bureau of Aeronautics were given to the Civil Aeronautics Administration.

The general control and supervision of these two offices were placed under the Secretary of Commerce and Industry. In this set-up, the CAB was vested with the functions relating to the economic aspects, while CAA was charged with operational and technical phases of air transportation.

The Board then was composed of the Secretary of Commerce and Industry, as Chairman, and the Administrator of the Civil Aeronautics Administration, as Vice-Chairman, the Commander of the Philippine Air Force and two other persons appointed by the President, as members.

The composition and membership of the Board has been retained with approval of Republic Act No. 776, on June 20, 1952, by the President. This law repealed Executive Order No. 94 and reorganized both the Civil Aeronautics Board and the Civil Aeronautics Administration.

The Civil Aeronautics Board was organized primarily for the development and utilization of air transportation potential in the Philippines, to assure the highest degree of safety in air transport and faster sound economic conditions on such transport, to promote adequate, economical, and efficient air service at reasonable charges without unjust discrimination, and to ensure the sound development of an air transportation system properly adapted to the needs of foreign and domestic commerce, postal service, and national defence.

Broadly, the Civil Aeronautics Board exercises general supervision and regulation of jurisdiction and control over air carriers, as well as their properties, property rights, equipment, facilities, and franchise.

The specific powers of the Board, however, are to license domestic and international airlines with the approval of the President, regulates fares and rates for the carriage of persons and property while enforcing the economic provisions of R.A. 776, negotiate air agreements covering exchange of air rights, approve or disapprove mergers, consolidations, inter-locking relationships, and inter-airline agreements and, among others, assure protection of the public by requiring the the performance of safe and adequate air service.

## **THE CIVIL AVIATION INDUSTRY, 1963 TO 1970**

### **Domestic Operation**

From 1957 to 1964 when the Philippine Air Lines was virtually the sole domestic scheduled operator, the growth of overall domestic traffic and capacity was indicated by such measures as increase in available seat miles at an average annual rate of growth of 16.6 per cent; and rate of growth of revenue passenger, 18.8 per cent.

In 1965 the entry of two other scheduled operators, the Filipinas Orient Airways and Air Manila brought about remarkable increases in capacity and traffic during the first year of airline competition, but this was not maintained in the succeeding years. The large increase in traffic in 1965 may be attributed to the novelty of the new airlines and the lower fares introduced.

Setting aside the unusual performance in 1965, we find that domestic passenger traffic and capacity during the succeeding years of competition increased by 17.5 per cent in available seat miles between 1964 and 1968. Competition did not, however, bring about a corresponding rate of growth of traffic which was evident during the precompetition periods. In line with the overall increases in capacity, several more significant aspects were noted such as the introduction and expansion of pure-jet operations by PAL, the replacement of DC-6B equipment with YS-11 aircraft by Filipinas Orient Airlines, and the replacement of the DC-3 with HS-748 turbo-prop aircraft initiated in late 1967 by PAL.

An adverse aspect of the operations during this period of competition was declining load factor for the three airlines; in 1965 it was 69.20 per cent, but declined to 65.98 per cent in 1966, to 60.20 per cent in 1967, to 57.97 per cent in 1968, and to 55.45 per cent in 1970. In October 1968 the night service rate increased from ₱0.12 per seat mile to ₱0.14 plus ₱2.00 as authorized by the Civil Aeronautics Board, while DC-3 rates were increased by ₱0.14 per seat mile plus ₱2.00 and the day turbo-prop rate was standardized at ₱0.18 per seat mile plus ₱5.00. These resulted in increased cost of air travel in the rural and developing areas of the country.

### Scheduled Domestic Air Carriers

Changes in the operation of domestic scheduled airlines were made in 1968. New aircrafts were introduced, schedules were raised to give more improved services to the air riding public, and fares were made uniform among the three major carriers.

These airlines, however, suffered losses in their domestic operations because of increased expenditures and labor strikes. The Philippine Airlines was beset with crippling strikes, forcing it to suspend major domestic operations for several months. However, international operations and other complementary services were profitable.

The Board acted promptly to partially alleviate the losses suffered by the airlines by approving, temporarily, slight upward adjustments of rates.

In 1970 the Philippine aircraft fleet was composed of 79 aircrafts of different types, as shown below by ownership, seating capacity and actual number used in scheduled operations.

### Philippine Carrier's Aircraft Fleet, as of June, 1970

Air Carrier	Type	As of June 30, 1969	As of June 30, 1970
Philippine Air Lines	DC-8	3	3
	BAC-1-11	3	3
	F — 27	12	11
	HS-748	10	11
	DC-3 (Passenger)	19	6
	DC-3 (Cargo)	2	3
	DC-4	1	1
	CESSNA 150	4	4
	BELL JET	1	1
	TOTAL	55	45

**Filipinas Orient Airway**

YS-11	4	4
NORD-262	3	3
DC-3	7	7
DC-6B	1	1
<b>TOTAL</b>	<b>15</b>	<b>15</b>

**Air Manila**

DART HERALD	2	2
F-27	6	6
DC-3	6	6
<b>TOTAL</b>	<b>14</b>	<b>14</b>

**International Air Carriers**

The pace of international operations has been increasing in almost all regions of the world.

In the Philippines, the increase in airline activities has given a favorable outlook to the economy. Available reports show that thirteen (13) reporting international air carriers, out of the eighteen (18), spent about P47 million in 1970 compared to P39.8 million in 1969, and generated a total volume of business amounting to P150.4 million thus exceeding previous year's volume of P126.7 million, from about P13 million in taxes were collected by the government in 1969 and P15.04 million in 1970.

In 1968, employment increased by 10 per cent, compared to the 404 employees and workers in 1967. This employment figure is small because the ground handling and sales services for most pineinternational airlines are handled by the Philippine Air Lines. The 1969 and 1970 total employment figures were estimated at 450 and 481, respectively.

Available data from international airlines show that although there was a general increase in the number of incoming and outgoing passengers from 1967 to 1970, there was also an alarming increase in the number of transit passengers on record, which was not favorable to the tourist industry. World-wide ticket sales consummated in the Philippines, as reported by thirteen (13) reporting air carriers, registered a gross output of P79,975 thousand in 1967; P104,339 thousand in 1968; P128,213 thousand in 1969; and P380,794 thousand in 1970. Weekly flights of all international air carriers increased from 81 in 1969 to 91 in 1970, giving signs of favorable conditions brought about by the "Open Skies Policy" introduced by the government.

As of 1970, 17 international carriers were authorized to operate in the Philippines. These were the Philippines Air Lines, Air France, Cathay Pacific Airways, KLM Royal Dutch Airlines, Malaysian-Singapore Airlines, Thai International, Scandinavian Airline System, Northwest Airlines, Japan Air Lines, Quantas Empire Airways, Swissair, China Airlines, Pan American World Airways, Air Vietnam, Garuda and Pakistan International Airlines. On February 3, 1969, Alitalia was granted a temporary authority to operate here, increasing the number of international airlines to seventeen (17). Under favorable conditions, the number is expected to increase to (20), including the pending applicants of Royal Air Cambodia, Sabena Belgian Airways and Trans-Mediterranean Airways.

To attract the operations of foreign airlines in the Philippines as well as boost the influx of tourists into the country, the Philippine Government has implemented the "Open Skies Policy". Because of its geographic locations, the country can ideally serve both as a terminus and as a staging point for air travel to and within this region of the world. Because of its potentials, it was necessary for the Philippines to conclude bilateral air service agreements with various foreign countries as a means of promoting understanding and international air travel. Such agreements has thus far been signed with Lebanon, France, Netherlands, Italy, Korea, United Arab Republic, the Scandinavian countries of Norway, Sweden and Denmark; negotiations have been started with Japan and Indonesia. The fundamental principle behind these agreements is the exchange of equitable and reciprocal air rights, the total value of which vary from one country to another.

In line with this policy, the Philippine Air Lines, the nation's flag carrier, has partially implemented the program of expansion of its international service, which includes the acquisition of plane models with bigger seating configuration and which can operate on longer flights.

### Performance of the Philippine Flag Carrier

In competition with other foreign air carriers flying the routes it serves, the Philippine Air Lines, Inc. (PAL) has attained a satisfactory performance record in its overseas services in terms of the number of international revenues passengers, passenger miles, miles flown seat miles available, ton miles available, passenger load factor, and international points served.

The International fleet of PAL, as of June 30, 1970, was composed of five (5) PI-C Douglas DC-8/Series 50, the "Sampaguita", "Ilang-Ilang" and "Champaca" and also three (3) PI-Jet One Eleven/Series 400. This fleet serves at least ten (10) international routes. These routes as well as the type of aircraft operated and the weekly frequency of flights are shown below.

Routes	Aircraft Operated	Weekly Frequency
1. Manila-Honolulu-San Francisco v.v.	DC-8	5
2. Manila-Honolulu v.v.	DC-8	1
3. Manila-Hongkong v.v.	DC-8	9
	One Eleven	2
4. Manila-Tokyo v.v.	DC-8	2
5. Manila-Sydney v.v.	DC-8	2
6. Manila-Taipei v.v.	DC-8	2
	One Eleven	2
	DC-8	2

As expected, the Philippine Air Lines (PAL) makes the highest number of departures and arrivals at the Manila International Airport, followed by Quantas Airways, Cathay Pacific Airways, Air France, KLM Royal Dutch Airlines, and Scandinavian Airlines System, to mention only few.

Below are the number of weekly scheduled arrivals and departures of different airlines, as of July 31, 1969.

	Arrivals	Departures
1. Air France	6	6
2. Air Vietnam	2	6
3. Alitalia	2	2
4. Cathay Pacific Airways	10*	10*
5. China Airlines	4	4
6. Garuda Indonesian Airways	2	2
7. Japan Air Lines	3	3
8. KLM Royal Dutch Airlines	6*	6
9. Malaysia-Singapore Airlines	2	2
10. Northwest Airlines	2	2
11. Pan American World Airways	4	4
12. Philippine Air Lines	30	29
13. Qantas Airways	15	15
14. Scandinavian Airlines System	5	5
15. Swissair Transport Co., Ltd.	2	2
16. Thai International Airways	3	3

\*Direct from Airline concerned.

### Passenger Statistics

The highest number of passengers carried by the International Commercial Aviation was during the month of May in which 51,452 passengers were carried, including transit, passengers. However, the lowest number of carried, including transit, passengers was in the month of February which had a total of 33,136 passengers, so the average number of passengers carried by the International Commercial Aviation during the period from July 1, 1968, to June 30, 1969, was 41,782. The domestic commercial aviation carried a total 1,253,133 passengers for the twelve-month period. The lowest number was 83,680 passengers carried in the month of August while the highest number carried was 138,893 passengers in the month of June. The average number of passengers carried was 104,428 per month for the period July 1, 1968, to June 30, 1969.

Volume of passengers carried for other months, both domestic and international, are shown below, while Table XIX.10 shows incoming and out-going passengers and flights from 1959 to 1968.

MONTH	NUMBER OF PASSENGERS CARRIED		COMBINED TRAFFIC
	MIA	DOM.	
July	42,950	98,828	141,778
August	43,409	83,680	127,089
September	39,376	85,654	125,030
October	43,160	94,124	137,284
November	41,640	97,129	138,769
December	41,271	122,225	153,496
January	35,628	107,489	143,115
February	33,136	85,367	118,503
March	38,594	99,625	138,219
April	42,352	115,403	157,755
May	51,452	138,893	190,345
June	47,424	134,716	182,140
T O T A L S	500,390	1,253,133	1,753,523

Table XIX.10 —NUMBER OF PASSENGERS AND NUMBER OF FLIGHTS OF INTERNATIONAL AIR CARRIERS  
(ALL AIRLINES, TO AND FROM THE PHILIPPINES)  
1959 - 1968

Year	Total Air Passengers			Number of Flights		
	Incoming	Outgoing	Total	Incoming	Outgoing	Total
1959	57,591	62,933	120,524	3,182	3,172	6,354
1960	62,037	63,947	125,984	2,942	2,945	5,887
1961	77,728	86,375	164,103	2,760	2,760	5,520
1962	80,195	91,300	171,495	2,700	2,698	5,398
1963	94,078	102,619	196,697	2,824	2,821	5,645
1964	109,851	117,659	227,510	3,108	3,110	6,218
1965	123,049	135,113	258,162	3,467	3,470	6,937
1966	155,952	165,920	321,872	3,577	3,579	7,156
1967	156,411	178,663	335,104	4,016	4,106	8,032
1968	180,479	210,767	391,246	4,485	4,491	8,976

Source: Civil Aeronautics Board.



## AIR TAXI OPERATORS

The small aircraft operation, better known as "Air Taxi", functions on a chartered and non-scheduled basis, mostly in rural areas where there are no services offered by major air carriers. These operators develop and pioneer the feeder routes, specially in rural areas, thus really helping rural growth by providing a faster means of transportation and communication between feeder routes to trunklines and/or secondary airports. They help regular operators by feeding them passengers from rural airports and rural areas that cannot be reached by regular scheduled airlines. It is for this reason that the Board is helping them grow and prosper by allowing them to charge a slightly higher, but reasonable rates than those charged by the scheduled air carriers in order to afford a fair return of their investments and ensure their continued operation. This type of operation can also be utilized as carrier of mail and other postal matters, although it has not been resorted to here in the Philippines.

As of June 30, 1969, five (5) certified air taxi operators — the Civil Air Rural Transport Service, Far East Aviation Service, Philippine Aviation Corporation, Tropical Airways, Inc., and the Pacific Airways Corporation — are based in Manila. Sky Tours Philippines, Inc. is Manila/Zamboanga based and Jacob S. Lim (Swift Air Service) is Davao/Manila based. The Arsenio P. Composagrado Air Taxi is based in Cauayan, Isabela, while C. Al. Varona and Paul Pelaez air taxi enterprises are based in Cebu and the Philippine Aerial Agriculture Corporation, in Davao. Eight other air taxi applications are pending approval by the Civil Aeronautics Board.

Statistics on the operations of air taxis in 1970 show a total flying time of 18,184 hours logged as against 10,603 flying hours in 1969, carrying 23,354 passenger and miscellaneous cargo of 1,808,808 lbs.

The air taxi industry during the year 1968 did not do so well, for the simple reason that the industry was still in its infancy. Consolidated income statements of the industry show a net loss of ₱223,021.00 compared with a ₱121,185.00 gain in 1967. Although there was an increase in gross revenue earned in 1968, which amounted to ₱3,323,122.00 compared with ₱1,867,470.00 in 1967, or an increase of 78 per cent, nevertheless the consolidated increase in operating and non-operating expenses amounted to ₱1,748,144.00. This represents 97 per cent increase from 1967 figures, reflecting the increase in gross revenue earned. These expenses were, however, necessary for the safety and convenience of the passengers. The Board, appreciating this situation, granted the petition to increase the rate of one of the losing carriers as well as authority to increase its fleet to be used as back-up aircraft and thus make their operation as flexible as possible with optimum utilization of men, money, and equipment.

The industry's total assets in 1968 amounted ₱8,396,699.00, of which ₱5,533,839.00 represented flying equipment and ground and property equipment. This was a considerable increase over the previous fixed assets which amounted to ₱2,773,216.00. Liabilities incurred by the industry totalled ₱5,924,384.00, compared with ₱3,979,767.00 in 1967, or an increase of 48.86 per cent. Stockholders' equity amounted to ₱2,472,315.00, which was an improvement over that in 1967 amounting to ₱1,576,338.00. The debt-equity ratio of the industry also improved from 71.63%: 28.37% in 1967, to 7.56%: 29.44% in 1968. It was noted, however, that the ratio of current assets to current liabilities (working capital ratio) of the industry went down to 0.51:1.00 in 1968.

On the operational side, the country's statistics show a total flying time of 8,564.00 hours logged for 1968, in which 15,270 passengers, aside from cargoes, were carried. This is better than the operation in 1967, in which the time logged was only 5,998.53 hours, with 11,224 passengers.

This type of operation is being encouraged to grow by the CAB, inasmuch as it is an indispensable factor in the nation's growth. The Philippines is made up of hundreds of islands, which have no better means of communication and transportation than by air. These supplemented carriers are therefore given the incentives to help develop the industry.

### Scheduled Airlines

During the filing of petitions for increase/reduction of fares, the Board, in its desire to establish more or less uniform fares for all the carriers, conducted a passenger fare investigation. Pending the result of this investigation, the Board, in its Resolution Nos. 191(68) and 231(68) dated August 1, 1968, and September 4, 1968, respectively, approved an ad interim rates for the following type of service.

1. Day Jet .....	P0.21/seat mile plus P20.00
2. Night Jet .....	P0.21/seat mile
3. Night Mercury (Prop-Jet) .....	P0.14/seat mile plus P2.00
4. Rolls-Royce (Prop-Jet) .....	P0.18/seat mile plus P5.00
5. Economy (DC-3) .....	P0.14/seat mile plus P2.00

The Board, acting on the recommendations of its examiners, found the ad-interim fares to be realistic in affording the domestic airlines a fair return on their investments without sacrificing a minimum degree of safety in their operations.

### Aero-Taxi Operators

There are eight (8) aero-taxi operators in the Philippines, with their bases of operation in Manila, Cebu and Mindanao. There had been introductions of several types of smaller aircraft, and additional applications for this particular type of service had been filed with the Board. To provide a sound and healthy competition among these operators, charter rates have been approved for the different types of aircraft. Some of these aircrafts commonly used are:

1. DC-3 — Passenger .....	P600.00/hr
Cargo .....	P400.00/hr
2. Lycoming PA-22 .....	P125.00/hr
3. L-5 .....	P100.00/hr
4. L-4 .....	P60.00/hr
5. Aero Commander 680-F .....	P400.00/hr
6. Helio Super Courier H-295 .....	P250.00/hr
7. Beechcraft Bonanza V-35 .....	P200.00/hr
8. Beechcraft Bonanza F-35 .....	P150.00/hr
9. Cessna 172 .....	P134.00/hr
	Charge — P100.00
10. Cessna P-206 Super Skyland .....	P170.00/hr
11. Cessna 336 Skymaster .....	P240.00/hr
12. Mooney Mark 21 .....	P140.00/hr
13. Mooney Executive .....	P150.00/hr
14. Stearman PT-13 (Agricultural) .....	P400.00/hr
15. Cullaire A-5 .....	P300.00/hr
16. Piper J-3 .....	P 42.00/hr
17. Navion-4 .....	P130.00/hr
18. Hughes Helicopter .....	P300.00/hr
19. Bell Helicopter .....	P400.00/hr

### Inter-Airport Mileage distance

As a basis for computation of fares, the technical staff has presented to the Board new inter-airport distances which will be implemented during the pendency of the passenger fare investigation. Distances between airports were computed by IBM machines with the respective coordinates provided by the Civil Aeronautics Administration. The distances were likewise based on geodetic distances.

In the interpretation and application of fares, the Board promulgated the following rules:

- A. The fare for a journey partly pure jet day service and partly pure jet night service shall be constructed by the combination of sectional fares for the class of service used. However, in no case need a combined pure jet day and night service fare be higher than the through pure jet day service fare over the same route between the same points.
- B. The fare for a journey partly pure jet day service and partly turbo-prop day or night service and DC-3 day service shall be constructed by the combination of the sectional distance multiplied by the applicable rate for the class service used plus ₱20.00.
- C. The fare for a journey partly turbo-prop day service and partly on turbo-prop night service or DC-3 day service shall be constructed by the combination of sectional distance multiplied by the applicable rate for the class of service used plus ₱5.00.
- D. The fare for a journey partly turbo-prop night service and partly on DC-3 day service shall be constructed by the combination of sectional distance multiplied by the applicable rate for the class of service used plus ₱2.00.
- E. The fare for a journey passing one or more intermediate points and the fare between any two points for a class of service which is not specifically published shall be constructed by multiplying the most direct established route mileage by the applicable rate plus the highest surcharge.
- F. For A, B, C, however, the combined fares shall in no case be higher than the through fare of the highest class of service between the same points.
- G. **Rounding off passenger fares.** In constructing the passengers fares pursuant to the rules on fare construction, the following rules shall apply:
  - (a) From ₱0.50 up should be rounded up to ₱1.00
  - (b) For less than ₱0.50 (computed up to two decimal places of a peso) should be rounded down.
- H. **Round trips.** Round trip discount of 5 per cent shall be applied to all types of service and shall be computed based on twice the normal one way (constructed or combined) fare.

### CIVIL AERONAUTICS ADMINISTRATION

Owing to the rapid expansion of air commerce in the Philippines, Republic Act No. 776, otherwise known as "The Civil Aeronautics Act of the Philippines", was approved in June 20, 1962, creating the Civil Aeronautics Administration. The Director of Civil Aviation, in the exercise and performance of his powers and duties provided for in this act, shall among others, consider the following major objectives:

- 1) The development and utilization of the air potential of the Philippines;
- 2) The encouragement and development of an air transportation system properly adapted to the present and future needs of foreign and domestic commerce of the Philippines, postal service and national defense;
- 3) The regulation and control of air transportation in such manner as to insure the highest degree of safety; and
- 4) The encouragement and development of civil aeronautics.

Among the powers, duties and responsibilities of this agency is the responsibility of issuing airman's certificate specifying the capacity in which the holder thereof is authorized to serve as airman in connection with the aircraft.

During fiscal year 1969-70 the Civil Aeronautics Administration issued original and renewal licenses for 442 airline transport ratings, 8 senior commercial pilots, 580 commercial pilots, 355 private pilots, 335 student pilots, 75 flight dispatchers, 44 flight navigators, 40 commercial pilots

with instruments, 42 flight engineers, 73 air traffic controllers, 64 flight instructors, 25 ground instructors, 68 instrument rating, 85 mechanics, 37 aero radio operators, 4 aero radio technicians, 4 aircraft radio technicians, 174 aircraft licensing, and 178 cabin crew.

Another important function of the Civil Aeronautics Administration is to issue airworthiness certificates for aircrafts, prescribing the duration of such certificates, the types of service for which the aircraft may be used, and such other terms, conditions, and limitations as are required. As of September 1971 airworthiness certificates, were issued to 404 small aircrafts, 22 F. 27.1 (Fokker) planes, 39 DC-3, one DC-C, 5 DC-8, one Dart Heralt, 4 YS-11, 2 BAC-111, and 14 HS-743 (AURO) planes.

### MANILA INTERNATIONAL AIRPORT

The Manila International Airport, located at Pasay City, is the only regular international airport in the Philippines. Considered as the aerial gateway to the Orient, with routes over a dozen international airlines radiating to various points in the Far East and the Pacific Basin, this airport has total area of about a thousand hectares and a terminal building<sup>2/</sup> comparable with those of other countries. Facilities of this airport have been established in accordance with standards largely dictated by the traffic densities and the types of air carrier served. The Civil Aeronautics Administration, for safe and efficient aircraft operations, has been providing and improving the navigation facilities in this airport, such as aeronautical communications, traffic control, and rescue aids.

At the close of Fiscal Year 1968-1969, there were 77 national airports in operation, all of which were well-maintained. These were grouped into Luzon, Visayas and Mindanao regions:

#### LUZON REGION

NAME OF AIRPORT	PROVINCE	NAME OF AIRPORT	PROVINCE
1. Alabat	Quezon	18. Lubang	Occ. Mindoro
2. Aparri	Cagayan	19. Lucena	Quezon
3. Bagabag	Nueva Vizcaya	20. Mamburao	Occ. Mindoro
4. Baguio	Mt. Province	21. Manila Int'l Airport	Pasay City
5. Baler	Quezon	22. Marinduque	Marinduque
6. Basco	Batanes	23. Naga	Camarines Sur
7. Bulan	Sorsogon	24. Palawan	Isabela
8. Calapan	Or. Mindoro	25. Plaridel	Bulacan
9. Castillejos	Zambales	26. Puerto Princesa	Palawan
10. Cauayan	Isabela	27. Romblon	Romblon
11. Corregidor	Cavite	28. Rosales	Pangasinan
12. Daet	Camarines Norte	29. San Fernando	La Union
13. Iba	Zambales	30. San Jose	Occ. Mindoro
14. Jomalig	Quezon	31. Sorsogon	Sorsogon
15. Laoag	Ilocos Norte	32. Tuguegarao	Cagayan
16. Legaspi	Albay	33. Vigan	Ilocos Sur
17. Lingayen	Pangasinan	34. Virac	Catanduanes

#### VISAYAN REGION

1. Bacolod	Negros Occ.	11. Mactan	Lapu-Lapu City
2. Calbayog	Samar	12. Masbate	Masbate
3. Catarman	Samar	13. Ormoc	Leyte del Norte
4. Caticlan	Aklan	14. Roxas	Roxas City
5. Cebu	Cebu	15. San Jose de Buenvista	Antique
6. Dumaguete	Negros Or.	16. Siquijor	Negros Or.
7. Guiuan	Samar	17. Tacloban	Leyte
8. Hilongos	Western Leyte	18. Tagbilaran	Bohol
9. Iloilo	Iloilo	19. Ubay	Bohol
10. Kalibo	Aklan	20. Wasig	Occ. Mindoro

<sup>2/</sup> This terminal building was, however, destroyed by fire in January, 1972.

## MINDANAO REGION

1. Allah Valey	Cotabato	13. Malabang	Lanao del Sur
2. Bancasi	Agusan	14. Malaybalay	Bukidnon
3. Barobo	Surigao del Sur	15. Maria Cristina	Lanao del Norte
4. Buayan	Cotabato	16. Misamis	Misamis Occ.
5. Cagayan de Oro	Misamis Or.	17. Rosario	Agusan
6. Camiguin	Misamis Or.	18. Sanga-Sanga	Sulu
7. Cotabato	Cotabato	19. Siargao	Surigao del Norte
8. Davao	Davao	20. Siocon	Zamboanga del Norte
9. Dipolog	Zamboanga del Norte	21. Surigao	Surigao del Norte
10. Jolo	Sulu	22. Tandag	Surigao del Sur
11. Kiamba	Cotabato	23. Zamboanga	Zamboanga del Sur
12. Liloy	Zamboanga del Sur		

As of the same fiscal year there were forty-eight (48) duly rated private airports in different parts of the country listed below.

1. Acoje	Sta. Cruz, Zambales
2. Alto	Hda. Luisita, Tarlac
3. Aras-Asan	Cagwait, Surigao del Sur
4. Baganga	Baganga, Davao
5. Basilan	Basilan, Basilan City
6. Barlo	Barlo, Dasol, Pangasinan
7. Balesin	Balesin Island, Quezon
8. Caltex Refinery	Bauan, Batangas
9. Shell Refinery	Tabangao, Batangas
10. Bislig	Bislig, Surigao del Sur
11. Calatagan	Calatagan, Batangas
12. Candaraman	Balabac, Palawan
13. Del Norte	Maluko, Bukidnon
14. Del Pilar	Roxas, Palawan
15. Derarayan	Palanan, Isabela
16. Diamond	Laguindinga, Misamis Oriental
17. Faraon	Cadiz, Occidental Negros
18. Hermana Mayor	Hermana, Mayor, Zambales
19. Hernajos	Natividad, Pangasinan
20. Ibonan	Dingalan, Quezon
21. Ilco	Salvacion, Negros Occidental
22. Isabela	Isabela, Basilan City
23. Kenram	Tacurong, Cotabato
24. Laconon (ANSA)	Laconon, South Cotabato
25. Landasan	Landasan, Cotabato
26. Lanao	Limay, Bataan
27. Latuan	Latuan, Basilan City
28. Mati	Mati, Davao
29. Milbuk	Palimbang, Cotabato
30. Paniqui	Paniqui, Tarlac
31. Passi	Iloilo
32. Pim	Larap, Camarines Norte
33. Phil-Pac	Esperanza, Agusan
34. Poon-Coto	Masinloc, Zambales
35. Saclair-Lebak	Lebak, Cotabato
36. Seclair-Kabasalan	Kabasalan, Zamboanga del Sur
37. Sangi	Sangi, Toledo City

38. Samal	Samal, Bataan
39. San Isidro Ranch	Maramag, Bukidnon
40. Siasi	Siasi, Sulu
41. Sierra Madre	Dinapigue, Isabela
42. Sipalay	Sipalay, Negros Occidental
43. Sirawasi	Siocon, Zamboanga del Norte
44. Taggat	Claveria, Cagayan
45. Talakag	Talakag, Bukidnon
46. Tumajubong	Tumajubong, Basilan City
47. Lutopan	Lutopan, Toledo City
48. Vicmico	Victorias, Negros Occidental

## AIRCRAFT AND AIRMEN LICENSES

The Administrator of the CAA, aside from his other powers and duties issues airmen's certificates specifying the capacity in which the holders thereof is authorized to serve as airman in connection with the aircraft. During the fiscal year 1969-70 the Civil Aeronautics Administration issued original and renewal licenses for the following:

1. Airline Transport Rating (ATR)	442
2. Sr. Commercial pilot	8
3. Commercial pilot	580
4. Private pilot	355
5. Student pilot	335
6. Flight Dispatcher	75
7. Flight Navigator	44
8. Commercial pilot with Instrument	49
9. Flight Engineer	42
10. Air Traffic Controller	73
11. Flight Instructor	64
12. Ground Instructor	25
13. Instrument rating	68
15. Mechanic	85
15. Aero Radio Operator	37
16. Aero Radio Technician	4
17. Aircraft Radio Technician	4
18. Aircraft Licensing	174
19. Cabin Crew	178

Another important function of the agency is to issue airworthiness certificates for aircrafts which prescribe the duration of such certificate, the type of service for which the aircraft may be used and such other terms and conditions and limitations. The following aircrafts were issued airworthiness certificates:

## AIRCRAFTS ISSUED AIRWORTHINESS CERTIFICATE, AS OF SEPTEMBER,

1971

Small	404
F. 27.1 (Fokker)	22
DC-3	39
DC-6	1
DC-8	5
Dart Herald	2
YS-11	4
BAC-111	2
H.S.-748 (AVRO)	14

Progress of air transport in the Philippines is also known in the number of helicopters in the country. This sophisticated means of travel is used by some government corporations and progressive private enterprises. There are ten (10) private heliports and 2 owned by government corporations as shown in the list below.

#### PRIVATE HELIPORTS

1. Botocon	Meralco, Majayjay, Laguna
2. Channel	R.S. Building, Quezon City
3. Emradeco	Loyola Heights, Quezon City
4. Gardner	Meralco, Sucat, Muntinlupa, Rizal
5. MCC	U.N. Avenue, Ermita, Manila
6. Manila Hilton	U.N. Avenue, Ermita, Manila
7. Manila Times	F. Torres, Sta. Cruz, Manila
8. Ortigas	Meralco, Ortigas, Avenue, Pasig, Rizal
9. Philippine Air Line	Ayala Avenue, Makati, Rizal
10. S.S.S.	SSS Building, Quezon City
11. Zobel	FORBES Park, Makati, Rizal
12. DBP	DBP, Makati, Rizal

#### Mactan alternate international airport projects

Mactan Airport had been designated as an alternate for Manila and it has started absorption of some international flights.<sup>3/</sup>

This airport was planned and programmed to provide all the necessary airport facilities for international flights. Its completion will augment the capability of the Philippines to handle extra flight frequencies from foreign countries and will open the City of Cebu, the major city served by Mactan Airport, to the air routes of international commerce and trade.

#### Air navigation and telecommunication service

In order to keep in stride with the rapid growth of aviation, the CAA embarked on a huge project of improving and modernizing its air navigation and telecommunication system. Changes in the airways system, which requires the installation of additional non-directional Radio Beacons (NDB) and VHF Omni-directional Radio Range (VOR) and the establishment of more airways communications stations, are in progress.

Some of the most significant accomplishments of the CAA in the fields of airways navigation, air traffic control, and aeronautical telecommunications are the installation of Iloilo Airport NDB and Control Tower facilities, the construction of the Legaspi Control Tower Building and improvement of Mactan Airport A/G VHF, Cebu Sub-ACC Office to Mactan Airport Control Tower Building. It has also started construction of the Mactan Aeronautical Service Building, conducted site surveys for the installation for various air navigation facilities under the CAA-PHILCOX contract, and started replacement of the Legaspi Airport NDB antenna system.

#### AIR FREIGHT FORWARDERS

This industry is one of those being regulated by the Board under Republic Act No. 766. Legally, they are known as "indirect carriers."

The Board has granted permits to eleven (11) companies to operate as air freight forwarders, as shown below:

3/ After the January, 1972 MIA fire, international flights were channelled to Mactan Airport for a few days.

The Freight Forwarders	Date of permit	Operating permit
Allied Brokerage Corporation	July 28, 1969	10 years
Flying Cargo, Inc.	June 2, 1962	10 years
LBC Air Cargo	June 25, 1962	10 years
Everett Air Cargo	August 16, 1962	10 years
Delgado Air Cargo	February 11, 1963	10 years
Emery Air Freight Forwarders	November 5, 1964	10 years
Filipinas Express, Inc.	March 26, 1967	10 years
Traders Air Cargo	July 22, 1968	5 years
Globe Air Cargo	September, 1968	5 years
Tri-Air Cargo	December 20, 1969	5 years
Luzon Brokerage Corporation	March 24, 1969	5 years

Improvements in the air freight forwarding business could be instituted inasmuch as domestic activity is so limited, with most of the air freight forwarders acting only as cargo agents of the direct carriers.

For international operation, in order to increase the volume of business to be generated by the air freight forwarders, the direct carriers must provide larger space for air freight. In 1969, an increase in space offered was realized as a result of the approval by the Civil Aeronautics Board of three additional cargo or freighter services by the following air carriers: KLM Royal Dutch Airlines, Trans-Mediterranean Airways, and Pan-American World Airways.

Durations of the permit approved by the Board range from five (5) to ten (10) years. Of the eleven (11) air freight forwarders, seven (7) were granted permits to operate for ten (10) years and the rest for five (5) years.

As of the end of calendar year 1970, the financial condition of the industry showed total assets of ₱208,762,156 as against ₱65,054,159 in 1969, or an increase of ₱143,707,997 representing 220.91 per cent. This increase is attributed to the fact that in 1969 only nine (9) air freight forwarders submitted their reports; while in 1970, ten (10) air freight forwarders reported their financial conditions. Of the total assets of ₱208,762,156, a total of ₱148,395,150, or 71.08 per cent, represent current assets; ₱45,551,528 or 12.82 per cent, property plant and equipment; ₱2,7535,441 or 1.31 per cent, investments; and the remaining ₱12,080,037 or 5.79 per cent, other assets. Total liability of the industry amounted to ₱98,219,861 or an increase of ₱63,299,535 over that of 1969, which was ₱34,920,326.

The industry's overall stockholders equity correspondingly increased to ₱110,542,295 in 1970 as against ₱30,133,832 in 1969, an increase of about ₱80,408,463 or 266.84 per cent industry an overall gain of ₱405,913 as against a net loss of ₱1,941,404 in 1969, as shown by the calendar year 1970 operations netted the following consensed comparative income statements for calendar years 1970 and 1969.

**Table XIX.11 — COMPARATIVE CONDENSED INCOME STATEMENT OF AIR FREIGHT FORWARDERS YEAR ENDED, DECEMBER 31, 1970 AND 1969**

	1 9 7 0	1 9 6 9	Increase Amount	(Decrease) Per Cent
Income	₱ 22,161,352	₱ 31,084,045	(₱ 8,922,693)	(28.71%)
Less: Operating Expenses	20,849,909	31,334,109	10,484,200	33.45%
Net Income (Loss) from Operation	1,311,443	( 250,064)	1,561,507	624.44%
Less Non-Operating Income (Expenses)				
Net	( 542,534)	( 1,463,435)	( 920,901)	(62.93%)
Net Profit (Loss) before Income Tax	768,909	1,713,499	2,482,408	14.37%
Less: Provision for Income Tax	362,996	227,905	135,091	59.28%
Net Income (Loss) for the year	₱ 405,913	( 1,941,404)	(₱ 2,347,317)	120.91%



A study of the preceding comparative income statements show that the industry generated only ₱22,161,352 in total revenues in 1970 compared to the ₱31,084,045 in 1969, or a decrease of ₱8,922,693. On the other hand, operating expenses also reflected a decrease of about ₱10,484,200 — from ₱31,334,109 in 1969 to ₱20,849,909 in 1970, giving the industry a net income from operations of ₱1,311,443 as against the net loss from operations of ₱250,064 in 1969. Non-operating income (expenses) decreased by ₱920,901 — from ₱1,463,435 in 1969 to only ₱542,534 — while provision for income tax increased by ₱135,091 from ₱227,905 in 1969 to ₱363,996 in 1970. Thus the 1970 overall net gain for the industry amounted to ₱405,913 as against the loss of ₱1,941,404 in 1969.

The big gap between the 1970 gain of ₱405,913 and the 1969 loss of ₱1,941,404 is attributable to the fact that in 1969 one air freight forwarder reflected extraordinary expenses amounting to ₱2,698,765.00. If those charges which were not ordinary in nature were not considered, the industry's overall operation in 1969 would have reflected a net profit of ₱757,361 instead of a net loss of ₱1,941,404.

Air freighting in the Philippines is not yet fully developed, but the over-all picture of the industry shows progress with a reasonable return to investment. To tap more revenue for the industry encouragement is needed in terms of more cargo space and more freight service in the existing markets.

## SHIPPING

All ships entering Philippine waters are required to register with the Philippine Coast Guard before they can engage in any form of trade.

### Application for Permanent Registration of Vessel Acquired/Built Abroad

1. The following documents shall be submitted with the application:
  - a) A copy of the provisional certificate of Philippine Registry
  - b) Board Resolutoin or letter of authority authorizing the person to represent the corporation.
  - c) Certificate of Admeasurement
  - d) Original copy of the document duly certified by the Philippine Consulate
  - e) Consular Invoice
  - f) Owner's Oath of Documentation
  - g) Application to engage in the trade
  - h) Permit to deliver imported goods
  - i) Certificate of Deletion (if formerly trading under foreign flag)
2. The Registration and Licensing Section shall assess the registration, documentation, and licensing fees of vessel.
3. When the required fees have been paid, a Permanent Certificate of Philippine Registry and related documents (Certificate of Ownership, Coastwise License etc.) shall be issued.

**Registration of Vessels Built/Acquired Locally**

1. The following documents shall be submitted with such application:
  - a) Articles of Incorporation duly certified by the Securities and Exchange Commission (SEC) if owned by Company or corporation
  - b) Board Resolution authorizing the person to represent the corporation or letter of authority
  - c) Affidavit of citizenship of corporation or individual owner
  - d) Builders certificate (if built locally only)
  - e) Deed of Sale (original copy for acquired locally)
  - f) Certificate of Admeasurement (for built locally only)
  - g) Application for assignment of name
  - h) Application for official number
  - i) Owner's Oath of Documentation
  - j) Application to engage in the trade
  - k) Naturalization papers if naturalized Filipino
  - l) Certificate issued to former owner for cancellation
  - m) Philippine Coast Guard approved plans

**Application for Issuance of Provincial Certificate of Philippine Registry for Vessel Acquired Abroad Formerly Utilized in Foreign Trade**

1. The following documents shall be submitted with the application:
  - a) Articles of Incorporation duly certified by the Securities and Exchange Commission (SEC) if owned by company or corporation
  - b) Memorandum of Agreement
  - c) Particulars of the Vessel
2. Upon acquisition of vessel abroad, application shall be submitted to the Philippine Coast Guard for assignment of name and official number, then to be submitted thru channels to the Philippine Consulate nearest to the place of purchase for issuance of Provisional Certificate of Philippine Registry.
3. The following documents shall be authenticated by the Philippine Consulate issuing the Provisional Certificate of Philippine Registry.
  - a) Bill of Sale
  - b) Commercial Invoice
  - c) Admeasurement Certificate, including calculation sheets for tonnage admeasurement by the official admeasurer of any country signatory to Inter-Government Maritime Consultative Organization (IMCO)
  - d) Loadline certificate issued by recognized classification society under whose class the vessel belongs
  - e) Ship-Safety Radio Telephony Certificate
  - f) Ship-Safety Radio Telegraphy Certificate
  - g) Certificate of Inspection or any equivalent certificate pursuant to SOLAS 1960 issued by the government under whose registry the vessel previously traded.
  - h) Inclining test experiment with calculations and stability calculations for all services loading conditions.
4. Upon arrival in the Philippines the owner shall apply for permanent Certificate of Philippine Registry.

**PHILIPPINE COAST GUARD**

The Philippine Coast Guard, known by that name only since August, 1967, is bound to play a vital part in Philippine maritime development.

The unique geographic features of the country, with its numerous islands and immense territorial waters, pose a major problem on maritime law enforcement. For some time, majority of the ships plying the interisland routes were virtually floating coffins, with inadequate safety and life equipment. Illegal and blast fishing and poaching by aliens in Philippine fishing grounds went on indiscriminately. Agencies concerned could do little or nothing at all for they were handicapped by lack of personnel and water-craft to enforce the law. To stop these nefarious activities, the Philippine Coast Guard was created and activated in August 1967.

The Coast Guard, enforcing maritime laws and sailing rules, maintains navigational aids, provides rescue aid to distressed vessels, conducts inspection of vessels for sea-worthiness, and issues licenses for their operations.

## AIDS TO NAVIGATION

The Philippine system of aids to navigation is similar to other countries. Such aids consist of buoys, lighthouses, radio beacons and electronic network operating on the hyperbolic principle-Loran.

The number of aids maintained as of December 1971 were:

### Lighthouse Stations and Power Sources

Kerosene-fed lighthouse stations	163
Engine-generator-fed lighthouse stations	36
Battery operated lighthouse stations	27
Acetylene gas fed lighthouse stations	21
Local electric main line operated	15
Total number of lights maintained by the National (Philippine) government	261
Total number of lights maintained by municipal government	70
Total number of lights maintained by U.S. government	7
Total number of lights maintained privately	32
Total number of lights maintained by the Civil Aeronautics Administration	2
Total number of lights maintained by other government entity	3
Total number of Lighthouses	375

### Lighted and Unlighted Buoys

Lighted Buoys	15
Unlighted CAN Buoys	73
Unlighted NUN Buoys	68
Spherical/Mooring Buoys	3
Total Number of Buoys	159

### Drydocking Facilities in the Following Localities

	Number
Manila	8
Cebu	7
Iloilo	5
Navotas	20
Cavite	2
Mariveles	5
Zamboanga	2
Davao	2
San Fernando, La Union	2
Misamis Oriental	2
	55

**Drydocking and Repair Facilities in the Philippines**

NAME OF YARD	LENGTH	WIDTH	CAPACITY	REMARK
<b>IDECO-ILOILO</b>				
<b>(LUSTEVECO)</b>				
Slipway No. 1	214'.0"	36'.0"	1,500 T	
Slipway No. 2	119'.0"	30'.0"	400 T	
Slipway No. 3	86'.0"	29'.0"	150 T	
Slipway No. 4	92'.0"	18'.0"	150 T	
Slipway No. 5	225'.0"	60'.0"	2,000 T	Graving Dock
<b>STA. MESA SLIPWAY</b>				
<b>(LUSTEVECO)</b>				
Slipway No. 1	89'.0"	25'.0"	100 T	
Slipway No. 2	80'.0"	25'.0"	100 T	
Slipway No. 3	120'.0"	34'.0"	200 T	
Slipway No. 4	120'.0"	34'.0"	200 T	
<b>NASSCO-MARIVELES</b>				
	530'.0"	70'.0"	12,600 T	Graving Dock
	217'.0"	—	1,200 T	Slipway
Slipway Engr. Is.	230'.0"	—	500 T	Slipway
Slipway Punta	100'.0"	32'.0"	300 T	Slipway No. 1
Slipway Punta	100'.0"	—	200 T	Slipway No. 2
<b>NAVOTAS-VILLAFRLOS</b>				
<b>SLIPWAY</b>				
Slipway No. 1	102'.0"	30'.0"	200 T	
Slipway No. 2	70'.0"	25'.0"	80 T	
<b>NAVOTAS-LUZON SLIPWAY</b>				
<b>Graving Dock</b>				
	130'.0"	33'.0"	300 T	
Slipway No. 1	130'.0"	35'.0"	300 T	
Slipway No. 2	120'.0"	20'.0"	300 T	
Slipway No. 3	115'.0"	25'.0"	300 T	
<b>NAVOTAS-DAVID SHIPYARD</b>				
Slipway No. 1	200'.0"	45'.0"	800 T	
Slipway No. 2	200'.0"	45'.0"	800 T	
Slipway No. 3	200'.0"	35'.0"	600 T	
Slipway No. 4	200'.0"	35'.0"	600 T	
<b>NAVOTAS P. ROQUE SHIPYARD</b>				
Bldg Way No. 1	210'.0"	32'.0"	150 T	
Bldg Way No. 2	210'.0"	32'.0"	150 T	
<b>NAVOTAS DYNA-MARINE SHIPYARD</b>				
Bldg Way No. 1	150'.0"	80'.0"	2,500 T	
Bldg Way No. 2	150'.0"	80'.0"	2,500 T	
Bldg Way No. 3	120'.0"	60'.0"	2,500 T	
Bldg Way No. 4	100'.0"	40'.0"	2,500 T	
Bldg Way No. 5	100'.0"	40'.0"	1,500 T	
Bldg Way No. 6	100'.0"	40'.0"	1,500 T	
Bldg Way No. 7	80'.0"	30'.0"	1,000 T	
Bldg Way No. 8	80'.0"	30'.0"	1,000 T	

**NATIONAL INDUSTRIAL SHIPYARD  
CORPORATION**

Bldg Way No. 1	250'.0"	60'.0"	1,000 T
Bldg Way No. 2	250'.0"	60'.0"	1,000 T

**CAVITE VARADERO DE MANILA**

Slipway No. 1	300'.0"	40'.0"	2,700 T
Slipway No. 2	300'.0"	40'.0"	2,700 T

**DELGADO BROTHERS**

Slipway No. 1	135'.0"	14'.0"	300 T	Ten units/
Slipway No. 2	120'.0"	14'.0"	220 T	Ten units/mo.

**CEBU SHIPYARD**

Slipway No. 1	265'.0"	44'.0"	700 T
Slipway No. 2	230'.0"	44'.0"	900-1,00 T
Slipway No. 3	130'.0"	35'.0"	400- 600 T
Slipway No. 4	130'.0"	25'.28"	400 T
MICHAEL SHIPYARD (LILOAN)	110'.0"	40'.0"	500 T

**PONCE SHIPYARD**

MANDAWE SHIPYARD	100'.0"	20'.0"	100 T
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**ZAMBOANGA SHIPYARD  
VARADERO DE RECODO  
BASILAN LINES SLIPWAY  
(BASILAN)**

100 T  
200 T

**DAVAO SHIPYARD**

Panacan Drydock	300'.0"	80'.0"	500 T	Opn. by means of jack or drydro lifting, com- plete steel lubricating eqpt. & machineries
Liong Cock Drydock	100'.0"	30'.0"	150 T	Opn. by means of roller & specializing in wooden construction

**SAN FERNANDO, LA UNION**

Atlantic, Gulf & Pacific Co. of Mla., Inc. — Ship Repair Facility Project

a) Marine Slipway	545'.0"	24'.0"	400 M/T
b) Floating Yard Dirreck	114'.0"	46'.0"	100 M/T

**MISAMIS ORIENTAL**

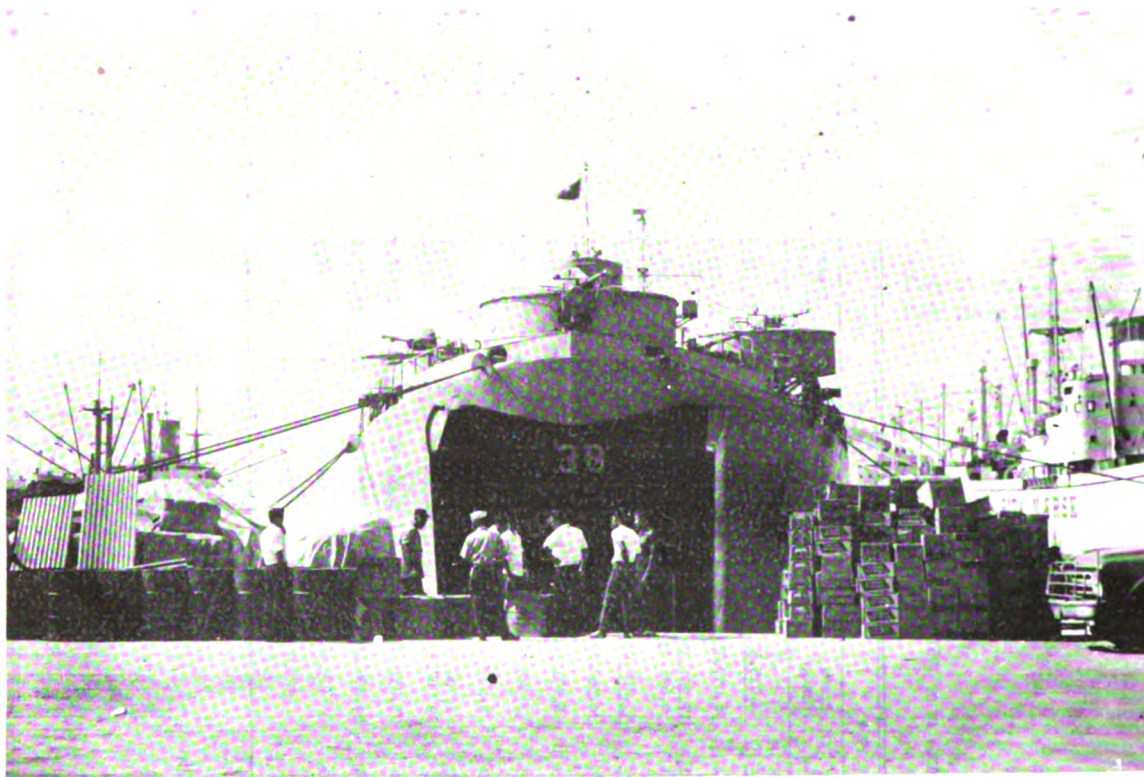
a) Phil. Iron Construction & Marine Work — drydock	220'.0"	80'.0"	120 T
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NOTE: Naval Drydocking facilities not included.  
Sandoval Shipyard, Navotas.

Table XIX.12 -STATUS OF PHILIPPINE SHIPPING, AS OF 1967 TO OCTOBER 31, 1971

Type of Vessel	Total			As of 1967			1968			1969			1970			October 1971		
	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage	No. of Vessels	Gross Tonnage
<b>I. Ocean-Going Vessels</b>	<b>130</b>	<b>819,923.42</b>	<b>88</b>	<b>577,880.24</b>	<b>16</b>	<b>84,015.53</b>	<b>13</b>	<b>109,573.52</b>	<b>11</b>	<b>44,576.51</b>	<b>2</b>	<b>3,883.69</b>						
1. Less than 5,000 G.T.	68	200,106.81	33	96,891.04	14	36,057.75	9	29,987.30	10	33,293.03	2	3,883.69						
2. 5,000 G.T. to less than 10,000 G.T.	49	384,860.44	47	361,371.72	1	17,261.33	1	6,227.39	-	-	-	-						
3. 10,000 G.T. or over	13	234,956.24	8	119,617.48	1	30,696.45	3	73,358.83	1	11,286.40	-	-						
<b>II. Inter-Island Vessels</b>	<b>2,097</b>	<b>431,925.03</b>	<b>1,289</b>	<b>284,596.22</b>	<b>238</b>	<b>43,400.45</b>	<b>263</b>	<b>55,454.18</b>	<b>138</b>	<b>16,765.73</b>	<b>169</b>	<b>31,708.45</b>						
1. Less than 100 G.T.	1,663	41,425.67	1,016	23,390.50	194	4,362.24	205	7,641.50	108	3,278.55	140	2,752.88						
2. Over 100 G.T. to less than 500 G.T.	248	53,509.51	136	28,960.98	29	6,271.30	42	9,323.53	24	4,929.41	17	4,024.29						
3. 500 G.T. to less than 1,000 G.T.	87	59,535.79	69	47,269.92	3	2,378.36	4	2,865.19	4	2,324.78	7	4,697.54						
4. 1,000 G.T. to less than 2,000	32	49,080.93	20	31,439.37	5	6,594.12	4	6,256.01	-	-	3	4,791.43						
5. 2,000 G.T. to less than 3,000 G.T.	36	80,329.26	31	67,465.02	2	4,706.76	2	5,201.49	1	2,955.99	-	-						
6. 3,000 G.T. or over	31	148,043.87	17	86,070.43	5	19,087.67	6	24,166.46	1	3,277.00	2	15,442.31						
<b>III. Bay and River Vessels</b>	<b>1,268</b>	<b>24,024.94</b>	<b>531</b>	<b>12,202.92</b>	<b>316</b>	<b>3,837.96</b>	<b>222</b>	<b>4,229.97</b>	<b>116</b>	<b>2,328.90</b>	<b>83</b>	<b>1,425.19</b>						
<b>IV. Barges</b>	<b>1,124</b>	<b>312,311.99</b>	<b>776</b>	<b>204,115.01</b>	<b>174</b>	<b>54,286.68</b>	<b>89</b>	<b>26,003.85</b>	<b>64</b>	<b>13,680.38</b>	<b>21</b>	<b>14,226.07</b>						
<b>V. Sailboat</b>	<b>305</b>	<b>4,919.92</b>	<b>271</b>	<b>4,156.63</b>	<b>20</b>	<b>495.56</b>	<b>6</b>	<b>128.42</b>	<b>4</b>	<b>66.93</b>	<b>4</b>	<b>72.38</b>						
<b>VI. Pleasure Yacht</b>	<b>164</b>	<b>1,785.54</b>	<b>6</b>	<b>98.75</b>	<b>12</b>	<b>657.04</b>	<b>30</b>	<b>318.29</b>	<b>66</b>	<b>467.72</b>	<b>50</b>	<b>243.74</b>						

Source: Armed Forces of the Philippines, Philippine Navy.



*Ships of the Philippine President Lines anchored at Manila South Harbor.*



## BUREAU OF CUSTOMS

Customs administration over all ships engaged in either domestic and foreign trade involves the delicate process of merchandise examination, classification, and appraisement which actually constitute the core of the custom revenue collection function.

The new all-time high collection record registered by the Bureau for the fiscal year 1970-1971 amounted to ₱1,378,069,264.24 in gross receipts for the general fund. This exceeded the gross intake of the Bureau of the previous year by ₱352,829,403.16. Total gross customs collections for fiscal year 1969-70, amounted to ₱1,025,239,861.08; and for fiscal year 1968-69, amounted to ₱1,007,098,551.61. Thus for the third consecutive year, the Bureau's annual collection has exceeded the ₱1 billion mark.

The Bureau of Customs is also lending significant assistance to the government's effort to promote and develop Philippine tourism. The steps taken by the Bureau in this direction have gained favorable reaction from tourism sectors here and abroad. Tourists now practically "breeze through" customs at the MIA and the South Harbor. Security for tourists inside the customs zone has been tightened. The Bureau is strongly collaborating with the BTTI, PTTA, and the private sector in the implementation of all projects to accelerate the development of the tourist industry.

The Bureau has paved the way for containerized-cargo handling in the Port of Manila. This is significant achievement calculated to enhance the international standing and prestige of the Port of Manila inasmuch as containerization is the latest concept in cargo handling.

Pier 3 has been converted into a container terminal and its yard is considered by technical experts as one of the finest today in this region.

The Bureau has also taken initiative in asserting Philippine sovereignty over the customs transactions in local US bases. After protracted negotiations, the United States government now recognizes the authority of the Bureau of Customs to examine and verify the volume and contents of all shipments destined for American military establishments in the Philippines, in accordance with the provisions of the Philippine-US Military Bases Agreement.

The Bureau now requires the United States Government to affix a custom documentary stamp in documents covering shipments to US bases which, aside from providing additional government revenue, has served to render official recognition of Philippine Government authority over customs transactions in these bases.

Tables XIX.13 and XIX.13a show the principal commodities loaded at the different major ports handling the largest cargo volume in fiscal year 1969-70 and 1970-71. Logs and lumber followed by sugar and copper concentrate are the three leading exports of the Philippines. The aggregate value in dollar of the ten principal exports of the Philippines for fiscal years 1969-1970 and 1970-1971 were \$967.4 million and \$935.3 million respectively.

Table XIX.14 and XIX.14a show the volume and value of imports unloaded at the Port of Manila by commodity classification for fiscal years 1969-1970 and 1970-71. Total taxable commodity in tons for fiscal year 1970-71 was 2,987,572,318 as compared with only 2,626,112 in 1969-70, an increase by about 1,136.64 percent or 2,984,946,206 tons.

Freight movement through a large port takes a number of different forms. These include cargoes for or from foreign countries and cargoes loaded and unloaded in coastwise shipping, that is, domestic freight moving between different Philippine ports. There is, as well, the in-transit movement in vessels that pass through the harbor without loading or unloading. Table XIX.15 present the trend of Philippine coastwise trade showing entrances for fiscal years 1970 and 1971. Fiscal year 1969-70 registered a total of 8.9 billion tons of cargo with an aggregate value of ₱4.6 billion, while fiscal year 1970-71 registered a total of 10.1 billion tons of cargo, an increase of about 1.2 billion tons over that of the previous year with an aggregate value of ₱5.6 billion.

Table XIX.16 shows clearances of Philippine coastwise trade for fiscal years 1970 and 1971. Similar information on Philippine foreign trade may be gleaned from Tables XIX.17, XIX.18, XIX.19 and XIX.22 while Tables XIX.20 and XIX.21 show the ranking of collection districts and receipts and expenditures by ports respectively.



## TRANSPORTATION

Table XIX.13 - TEN PRINCIPAL EXPORTS LOADED AT THE MAJOR PORTS  
OF THE PHILIPPINES: FY 1969-70

Commodity	Weight (kilos)	Value (Dollar)
Total	<u>10,152,844,765</u>	<u>\$967,440,643.22</u>
Logs and lumber	8,065,106,709	383,183,423.41
Sugar	828,920,824	225,672,129.17
Copper concentrate	331,371,726	176,404,694.48
Coconut oil	209,496,777	62,098,415.90
Copra	333,394,552	52,547,037.10
Plywood	181,403,780	25,763,605.75
Desiccated coconut	45,766,809	17,219,414.91
Abaca	83,516,135	16,439,998.26
Veneer	61,236,611	4,320,984.98
Canned pineapple	21,630,842	3,790,939.26

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.13a - TEN PRINCIPAL EXPORTS LOADED AT THE MAJOR PORTS  
OF THE PHILIPPINES: FY 1970-71

Commodity	Weight (kilos)	Value (Dollar)
Total	<u>10,504,326,363</u>	<u>\$935,290,115.91</u>
Logs and lumber	6,887,274,700	254,796,362.82
Sugar	1,410,061,330	214,342,572.14
Copper concentrate	546,386,000	132,847,674.55
Coconut oil	348,636,339	107,064,691.20
Copra	518,622,728	105,800,094.00
Plywood	152,517,572	37,541,310.78
Pineapple	159,608,017	31,441,009.08
Desiccated coconut	73,711,930	20,626,287.68
Copra pellets	348,283,340	17,360,223.93
Abaca	59,224,407	13,469,885.73

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.14 - VOLUME AND VALUE OF IMPORTS UNLOADED AT THE PORT OF MANILA: FY 1969-70

Commodity Classification by Category	Weight (Tons)	Value (P) (Taxable)	Weight (Tons)	Value (P) (Tax Exempt)
Total	2,626,112	P3,185,886,152.00	561,595	P 697,827,519.00
Textile	54,026	253,450,204.00	34,886	89,547,826.00
Embroidery	-	-	10,233	142,213,739.00
Hardware A & B	400,227	323,338,813.00	315,188	220,764,442.00
Electrical	34,586	260,669,454.00	3,755	23,229,038.00
Mech. machinery	99,331	662,832,730.00	7,545	61,081,869.00
Vehicles <sup>1/</sup>	92,207	375,954,595.00	81,661	80,273,609.00
Foodstuffs	549,152	417,181,873.00	46,537	11,492,416.00
Drugs and chemicals	1,204,859	631,781,011.00	1,715	3,689,533.00
Miscellaneous A	184,390	224,643,879.00	58,003	52,654,311.00
Miscellaneous B	6,967	34,895,426.00	193	2,831,426.00
M.V.O. <sup>2/</sup>	367	1,138,167.00	1,879	10,049,310.00

<sup>1/</sup> Complete knock down part<sup>2/</sup> Motor vehicle, complete

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.14a - VOLUME AND VALUE OF IMPORTS UNLOADED AT THE PORT OF MANILA: FY 1970-71

Commodity Classification by Category	Weight (Tons)	CIF Value (P) (Taxable)	Weight (Tons)	CIF Value (P) (Tax Exempt)
Total	2,987,572,318	P4,487,216,251.00	333,609,100	P 784,704,479.00
Textile	56,170,584	303,443,914.00	29,456,568	106,823,737.00
Embroidery	-	-	10,423,798	200,858,804.00
Hardware A & B	328,199,964	450,249,901.00	211,324,879	238,156,985.00
Electrical	27,459,040	327,687,085.00	1,266,441	15,037,417.00
Mech. machinery	87,887,918	864,030,556.00	4,023,932	48,118,340.00
Vehicles <sup>1/</sup>	86,235,417	472,810,660.00	26,790,477	68,867,227.00
Foodstuffs	684,052,805	655,613,029.00	1,217,838	1,792,813.00
Drugs and chemicals	1,508,151,700	1,021,551,164.00	1,164,810	2,685,156.00
Miscellaneous A	183,531,243	236,219,298.00	45,642,826	70,123,634.00
Miscellaneous B	25,585,542	154,265,552.00	381,181	10,880,403.00
M.V.O. <sup>2/</sup>	298,105	1,345,092.00	1,916,350	21,359,963.00

<sup>1/</sup> CKD - complete knock down parts<sup>2/</sup> Motor vehicle - complete

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.15 -- COMPARATIVE TREND OF PHILIPPINE COASTWISE TRADE SHOWING ENTRANCES: FY 1969-70 AND FY 1970-71

Port	FY 1970-71				FY 1969-70			
	Number of , vessels ,	Cargo in tons ,	Value in pesos ,	Number of , vessels ,	Cargo in tons ,	Value in pesos ,		
Total	70,984	10,139,841.334	₱5,603,269,348.73	72,144	8,914,096.675	₱4,654,604,167.72		
Manila	3,810	951,488.110	1,137,840,188.03	3,787	890,025.000	968,889,617.76		
Apurri	45	83,383.721	12,725,030.43	42	58,027.690	18,346,607.15		
Batangas	5,856	40,222.370	18,725,651.85	5,161	58,153.773	14,681,888.93		
Bielig	267	52,745.562	35,352,775.60	257	40,522.897	18,292,481.36		
Cagayan de Oro	2,512	278,929.112	212,150,314.15	2,600	276,660.998	169,694,378.03		
Catbalogan	1,459	1,505,881.424	10,331,725.98	1,819	1,353,110.879	11,245,814.25		
Cebu	14,706	1,490,835.232	1,500,872,902.71	15,006	1,942,365.377	1,360,059,730.24		
Dadiangas	790	167,249.846	234,721,012.10	955	125,171.374	146,686,440.47		
Davao	980	499,016.064	444,335,637.17	985	308,744.480	431,999,464.33		
Dumaguete	1,718	94,263.386	98,823,999.04	1,886	102,800.249	90,871,740.49		
Iligan	2,430	737,681.358	182,539,940.56	2,146	287,921.162	121,697,817.41		
Iloilo	9,177	1,222,819.251	626,830,622.70	8,584	965,528.769	453,765,739.47		
Jolo	3,094	51,213.681	45,052,719.19	3,577	62,487.511	46,553,344.97		
Jose Panganiban	41	57,539.574	7,882,578.23	42	58,477.446	5,681,557.09		
Legaspi-Tubaco	1,640	210,406.302	247,732,965.28	1,513	153,327.387	101,988,846.47		
Macatan	860	449,044.578	68,474,878.77	829	588,600.919	77,147,297.37		
Masao	1,874	561,119.731	145,630,679.55	1,989	470,877.520	156,459,570.72		
Ozamis	4,481	73,104.654	76,851,417.78	4,804	67,081.319	64,661,173.60		
San Jose	301	14,776.902	13,796,881.70	266	14,526.626	8,864,556.97		
San Fernando	162	355,273.663	48,696,737.38	181	321,633.100	41,245,253.13		
Sialin	-	-	-	-	-	-		
Sual	-	-	-	-	-	-		
Surigao	2,856	855,098.847	95,879,536.95	3,137	429,699.969	64,888,617.09		
Tacloban	3,483	78,101.803	66,302,209.63	3,906	89,428.449	87,244,225.71		
Virac	-	8,420.557	9,864,360.67	-	-	-		
Zamboanga	8,442	301,225.606	261,854,583.28	8,672	248,923.781	193,638,004.71		

TABLE XIX 16.- COMPARATIVE TREND OF PHILIPPINE COASTWISE TRADE SHOWING ENTRANCES, FY 1969-70 AND FY 1970-71

Port	FY 1970-71			FY 1969-70		
	Number of, vessels	Cargo in tons	Value in pesos	Number of, vessels	Cargo in tons	Value in pesos
<b>Total</b>	<b>71,479</b>	<b>9,310,694.634</b>	<b>P3,892,062,386.76</b>	<b>72,722</b>	<b>22,002,066.896</b>	<b>P3,639,821,394.86</b>
Manila	3,810	798,427.470	829,594,580.55	3,787	774,690.070	820,046,231.09
Apurri	46	3,801.400	519,510.00	40	1,018.566	105,970.40
Batangas	5,851	2,667,607.070	337,091,226.67	5,153	3,006,309.227	356,204,415.19
Bislig	267	26,807.690	14,175,322.75	257	17,946.760	7,149,491.20
Cagayan de Oro	2,512	255,906.874	151,251,341.04	1,943	190,177.476	89,908,248.79
Catbalogan	1,459	958,720.780	3,995,725.45	1,819	733,893.360	2,729,443.73
Cebu	14,938	1,397,298.459	1,374,973,525.34	15,186	1,751,830.805	1,275,843,013.06
Dadiangas	790	73,711.825	64,464,144.21	955	114,610.348	79,122,312.36
Davao	980	151,690.076	171,249,932.08	985	214,892.800	159,664,117.50
Dumaguete	1,718	51,068.527	41,079,535.98	1,886	41,037.651	29,862,814.18
Iligan	2,430	891,042.801	194,840,250.19	2,142	343,512.562	154,368,708.46
Iloilo	9,270	329,358.959	209,094,543.44	8,661	249,565.640	166,065,199.06
Jolo	3,094	35,164.684	32,049,188.92	3,577	45,302.135	32,669,361.11
Jose Panganiban	44	4,301.500	251,150.00	42	-	-
Legaspi-Tabaco	1,642	341,259.109	59,490,536.12	1,513	61,968.779	31,802,622.41
Mactan	862	185,652.171	52,660,205.54	842	182,079.138	42,919,162.21
Masao	1,874	184,846.995	106,372,989.37	1,989	13,476,913.164	114,965,849.15
Osamis	4,481	61,107.566	61,939,220.30	4,804	64,218.078	101,914,007.92
San Jose	301	12,777.599	12,582,466.98	264	8,586.602	5,956,674.26
San Fernando	162	3,635.200	232,275.02	181	4,673.000	476,000.00
Sual	-	-	-	-	-	-
Sual	-	-	-	-	-	-
Surigao	2,856	704,649.000	35,121,262.16	3,137	583,077.777	60,398,023.01
Tacloban	3,483	33,245.856	31,785,479.10	3,906	29,608.835	24,926,872.71
Virao	-	3,653.270	4,020,840.40	-	-	-
Zamboanga	8,609	134,959.753	102,957,135.15	9,653	106,154.123	85,737,857.06

Source: Bureau of Custom, Research and Statistics Department.

Table XIX.17 — COMPARATIVE TABULATION OF PHILIPPINE FOREIGN CARRYING TRADE SHOWING ENTRANCES OF VESSELS BY PORT OF ENTRY, FOR FISCAL YEAR 1970-1971 AND FISCAL YEAR 1969-1970

Name of Port	Entrances Fiscal Year 1970-1971					Entrances Fiscal Year 1969-1970				
	Number of Vessels	Vessels Tonnages		Discharged Cargo		Number of Vessels	Vessels Tonnages		Discharged Cargo	
		Gross	Net	Weight (Tons)	Value (P)		Gross	Net	Weight (Tons)	Value (P)
<b>Total</b>	<b>15,092</b>	<b>46,785,085</b>	<b>28,202,994</b>	<b>12,243,249,009</b>	<b>7,285,718,359</b>	<b>14,353</b>	<b>48,364,073</b>	<b>29,158,678</b>	<b>10,035,103,172</b>	<b>4,959,040,962</b>
Manila	2,521	15,330,862	8,979,552	5,421,551	5,580,029,601	2,371	15,733,683	9,086,108	3,187,707	3,883,713,671
Alexandria	221	763,792	455,076	601	736,860	195	757,950	443,535	1,665	1,686,457
Batanga	143	3,649,509	2,246,880	5,941,675	620,092,763	169	3,895,743	2,355,078	6,039,574	450,681,467
Bislig	515	1,986,122	1,206,015	29,132	105,139,236	464	1,879,711	1,119,031	386	3,337,499
Cagayan de Oro	588	954,802	1,155,351	49,514	22,640,239	594	1,590,279	1,150,826	23,229	22,515,757
Catualogan	73	306,578	187,425	-	-	81	342,951	199,408	-	-
Cebu	444	2,351,664	1,342,740	95,347	276,500,973	456	2,855,856	1,627,179	187,647	192,095,043
Medan	136	636,949	327,303	10,015	23,130,770	144	501,526	260,264	2,912	9,092,249
Davao	849	3,551,103	2,079,602	28,319	104,530,999	862	3,767,532	2,183,675	13,996	35,490,522
Dumaguete	125	530,720	316,073	2,603	5,003,760	118	545,442	336,993	14,776	17,371,455
Iligan	229	1,239,227	754,157	296,482	49,186,780	249	1,240,527	731,681	222,622	102,588,265
Iloilo	457	2,065,914	1,263,380	105,648	129,832,049	425	1,989,493	1,178,342	81,798	63,205,832
Iolo	312	123,021	74,257	142	174,933	206	103,781	62,270	431	274,622
Jose Panganiban	166	922,597	433,037	21,294	11,880,488	195	1,015,764	470,061	13,080	3,334,520
Lagundi-Tubaco	79	530,367	319,006	922	2,483,794	109	721,669	428,135	788	963,971
Manila	93	600,212	354,658	95,660	47,233,852	91	561,926	307,984	121,571	41,172,543
MIA	6,420	1,714,771	993,640	3,378	145,021,708	6,081	1,521,279	877,547	4,521	68,119,869
Masao	477	1,810,473	1,109,354	1,934	22,201,231	467	1,866,559	1,113,689	1,804	10,249,092
Ozamis	101	485,164	290,794	22	52,387	77	455,218	265,741	0.162	705
San Jose	45	147,476	87,334	0.009	441	49	186,540	106,808	0.010	103
San Fernando	284	2,029,691	1,175,843	31,988	61,528,004	252	1,645,597	994,420	28,358	52,105,258
Stalin	225	720,068	433,618	98,553	49,426,256	118	522,217	302,377	80,423	24,641,794
Sual	138	1,617,477	1,044,599	5,301	10,602,014	126	1,403,170	870,524	3,925	6,938,667
Surigao	48	114,741	92,357	750	32,078	55	121,633	131,201	1,636	91,534
Taal	131	698,183	349,708	4,607	9,789,507	134	606,822	354,893	940	3,190,608
Tuloban	7	24,826	15,037	-	-	4	13,689	8,250	-	-
Zamboanga	465	1,878,976	1,155,998	1,611	8,407,636	461	2,022,716	1,192,621	1,114	6,380,439

\* Aircraft

Source: Bureau of Customs, Research and Statistics Department.

Table XIX-16 —COMPARATIVE OF PHILIPPINE FOREIGN CARRYING TRADE SHOWING ENTRANCES OF VESSELS BY PORT OF ENTRY, FOR FISCAL YEAR 1969-1970 AND FISCAL YEAR 1968-1969

Name of Port	Entrances Fiscal Year 1969-1970					Entrances Fiscal Year 1968-1969				
	Number of Vessels	Vessels Tonnages		Discharged Cargo Value (P)	Number of Vessels	Vessels Tonnages		Discharged Cargo Value (P)	Weight (Tons)	Value (P)
		Gross	Net			Gross	Net			
<b>Total</b>	<b>14,353</b>	<b>49,364,073</b>	<b>28,158,636</b>	<b>10,035,103.172</b>	<b>13,581</b>	<b>48,581,428</b>	<b>27,857,855</b>	<b>4,982,161.124</b>	<b>11,983,898</b>	<b>4,982,161.124</b>
Manila	2,371	15,733,683	9,086,108	3,187,707	2,459	16,803,574	9,384,343	3,927,073,717	5,818,803	1,511,563
Alorani	195	757,970	443,575	1,665	160	665,382	393,788	1,511,563	768	367,686,691
Davao	169	3,895,743	2,355,075	6,039,574	162	3,283,377	2,022,642	5,217,598	5,217,598	6,311,166
Butig	464	1,879,711	1,119,031	586	424	1,980,755	1,161,416	35,162,958	35,162,958	181,200,126
Cagayan de Oro	394	1,900,279	1,150,826	23,229	413	2,047,427	1,203,828	239,251	239,251	103,133,688
Catbalogan	81	342,951	199,408	-	31	183,369	113,378	76,286,949	153,493	96,696
Cebu	456	2,855,856	1,627,179	187,647	545	3,221,372	1,837,769	2,678,726	12,027	2,678,726
Medan	144	501,526	260,264	2,912	101	332,780	160,439	2,144,425	1,796	31,156,736
Davao	862	3,767,532	2,183,675	13,996	795	3,557,704	2,082,133	63,012,225	4,586	10,673,772
Dumaguete	118	545,442	336,993	14,776	119	557,400	345,697	10,673,772	4,586	10,673,772
Iligan	249	1,240,527	731,681	222,622	268	1,766,777	962,106	239,251	239,251	103,133,688
Iloilo	425	1,989,493	1,178,342	81,798	392	1,752,522	1,014,824	76,286,949	153,493	96,696
Jolo	206	103,781	62,270	431	118	167,075	93,031	304	304	96,696
Jose Panganiban	195	1,013,764	470,061	13,080	201	1,106,184	533,306	2,678,726	12,027	2,678,726
Laguna-Tabaco	109	721,669	428,135	788	114	813,064	474,621	2,144,425	1,796	31,156,736
Marikina	91	562,926	307,984	121,571	92	541,036	315,825	97,087	97,087	10,673,772
Marikina	6,081	1,511,479	877,547	4,521	5,519	1,352,359	811,032	63,012,225	4,586	10,673,772
Manila	467	1,562,359	1,113,689	1,604	435	1,332,395	1,149,101	4,586	4,586	10,673,772
Manila	77	455,218	265,741	.162	27	196,555	117,079	-	-	-
Manila	49	186,540	106,808	.010	99	371,958	221,851	-	-	-
San Jose	252	1,645,597	994,420	28,358	236	1,503,251	911,637	94,546,459	49,186	94,546,459
San Fernando	118	522,217	302,377	80,423	156	696,562	401,396	21,552,273	78,523	21,552,273
Sual	126	1,403,170	870,524	3,925	90	548,061	325,171	1,434,271	876	1,434,271
Surigao	55	221,633	131,201	1,636	4	22,111	13,206	637,611	6,219	637,611
Surigao	134	606,922	354,893	940	107	595,263	350,322	13,206	13,206	637,611
Visayas	4	13,689	8,250	-	556	2,560,486	1,550,326	8,757,871	5,990	8,757,871
Zamboanga	461	2,022,716	1,192,621	1,114	556	2,560,486	1,550,326	8,757,871	5,990	8,757,871

\* Aircraft

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.19 — COMPARATIVE PHILIPPINE FOREIGN CARRYING TRADE SHOWING CLEARANCES OF VESSELS BY PORTS OF ENTRY FOR FISCAL YEAR 1969-1970 AND FISCAL YEAR 1968-1969

Name of Port	Number of Vessels	Clearances Fiscal Year 1969-1970						Clearances Fiscal Year 1968-1969					
		Vessels Tonnages		Loaded Cargo		Number of Vessels		Vessels Tonnages		Loaded Cargo		Number of Vessels	
		Gross	Net	Weight (Tons)	Value (P)	Gross	Net	Gross	Net	Weight (Tons)	Value (P)	Gross	Net
<b>Total</b>	<b>14,038</b>	<b>46,720,575</b>	<b>26,200,761</b>	<b>13,075,020</b>	<b>4,353,876,433</b>	<b>13,238</b>	<b>25,310,132</b>	<b>45,622,191</b>	<b>25,310,132</b>	<b>12,502,644</b>	<b>3,248,114,137</b>	<b>12,502,644</b>	<b>25,310,132</b>
Manila	2,371	15,733,685	9,086,108	561,896	616,860,567	2,490	9,349,200	16,742,077	9,349,200	457,521	559,778,802	16,742,077	9,349,200
Alexandria	187	721,819	421,249	265,494	52,209,941	164	405,632	682,014	405,632	510,280	30,624,975	682,014	405,632
Batavia	165	3,875,375	2,343,954	1,203,975	306,909,477	75	936,575	1,520,085	936,575	523,989	54,687,430	1,520,085	936,575
Batavia	467	1,892,627	1,126,149	431,853	165,028,818	471	1,290,069	2,177,904	1,290,069	869,124	124,965,315	2,177,904	1,290,069
Cebu	349	1,704,221	990,035	605,867	166,548,417	197	528,850	906,961	528,850	678,947	159,146,217	906,961	528,850
Cebu	81	342,951	199,408	154,654	68,219,953	31	113,956	183,309	113,956	37,470	12,773,642	183,309	113,956
Cebu	456	2,895,856	1,627,179	473,789	664,533	545	1,137,769	3,221,372	1,137,769	576,685	324,190,514	3,221,372	1,137,769
Davao	144	501,526	260,264	208,043,432	407,186,923	101	150,499	332,780	150,499	413,043	61,204,953	332,780	150,499
Davao	633	3,629,993	2,109,541	2,041,958	407,186,923	786	2,058,534	3,517,429	2,058,534	2,050,654	370,794,340	3,517,429	2,058,534
Davao	118	545,442	336,893	422,585	130,820,152	119	345,697	1,776,777	345,697	317,881	114,517,014	1,776,777	345,697
Davao	249	1,240,527	731,681	313,653	99,652,213	266	862,106	1,724,079	862,106	408,700	105,879,711	1,724,079	862,106
Iloilo	508	1,782,605	1,026,360	1,145,254	545,258,618	297	1,008,580	1,724,079	1,008,580	914,675	410,108,058	1,724,079	1,008,580
Iloilo	204	1,024,539	61,598	22,702	10,800,841	118	96,051	167,075	96,051	46,000	20,596,488	167,075	96,051
Jose Panganiban	197	1,034,321	491,285	692,593	76,502,961	199	534,575	1,112,197	534,575	985,760	64,570,058	1,112,197	534,575
Laguayan-Palawan	109	721,669	428,135	114,473	62,999,716	114	474,621	813,064	474,621	143,144	57,007,058	813,064	474,621
Marikina	29	175,613	87,729	23,155	5,925,736	92	315,025	541,036	315,025	13,899	5,158,863	541,036	315,025
Marikina	6,081	1,521,379	877,547	2,658	112,546,214	5,519	1,395,036	1,932,365	1,395,036	2,716	87,593,436	1,932,365	1,395,036
Marikina	467	1,862,359	113,689	1,502,365	181,581,212	483	1,149,101	1,932,365	1,149,101	1,341,414	191,114,935	1,932,365	1,149,101
Marikina	77	455,218	266,741	156,617	73,256,417	27	196,555	371,958	196,555	48,194	24,090,859	371,958	196,555
Marikina	47	178,880	102,504	105,855	12,658,154	99	221,851	371,958	221,851	222,516	33,616,545	371,958	221,851
San Jose	291	1,645,597	994,420	769,443	311,834,058	236	911,637	1,503,251	911,637	618,274	166,670,478	1,503,251	911,637
San Fernando	205	807,469	471,976	449,575	61,271,139	156	403,386	696,562	403,386	603,903	60,447,379	696,562	403,386
San	82	913,174	566,531	586,605	54,672,811	90	325,371	546,062	325,371	450,860	32,861,419	546,062	325,371
San	35	221,655	131,201	81,528	3,317,443	4	13,206	22,111	13,206	6,344	76,950,694	22,111	13,206
Surigao	126	568,900	329,476	148,465	35,828,580	107	350,922	539,263	350,922	140,529	16,590,097	539,263	350,922
Surigao	4	13,689	6,250	7,867	1,033,014	4	1,596,269	2,365,507	1,596,269	300,924	127,446,829	2,365,507	1,596,269
Surigao	378	1,701,512	1,011,942	238,388	129,577,099	490	1,596,269	2,365,507	1,596,269	300,924	127,446,829	2,365,507	1,596,269

\* Aircraft

Source: Bureau of Customs, Research and Statistics Department.

Table XIX.20 - RANKING OF COLLECTION DISTRICTS AS TO OVERALL  
INCOME FROM ALL SOURCES: FISCAL YEAR 1969-1970.

RANK	PORT	INCOME
Total		P 1,075,688,209.62
1	Manila	899,503,840.02
2	Batangas	54,817,354.97
3	Cebu	36,669,889.42
4	MIA	25,222,123.43
5	Iloilo	10,193,286.23
6	Davao	8,031,577.90
7	San Fernando	6,967,171.86
8	Iligan	5,809,709.99
9	Mactan	5,673,007.91
10	Cagayan de Oro	4,869,799.81
11	Sisain	3,776,493.61
12	Zamboanga	2,626,319.28
13	Sual	2,211,539.00
14	Masao	1,985,397.47
15	Dadiangas	1,859,661.24
16	Bislig	1,686,566.76
17	Dumaguete	840,703.40
18	Legaspi-Tobacco	622,643.52
19	Jose Panganiban	575,871.92
20	Aparri	457,093.99
21	Ozamis	334,410.89
22	Jolo	298,607.85
23	Tacloban	231,357.85
24	Surigao	175,407.70
25	Catbalogan	129,047.53
26	San Jose	110,894.77
27	Virac	12,432.10

Source: Research and Statistics Department, Bureau of Customs

Table XIX.21 - COMPARATIVE STATEMENT OF RECEIPTS AND EXPENDITURES  
BY PORTS SHOWING COST PER PESO COLLECTION

Name of Port	Receipts	Expenditures	Cost/Peso Collection
Total	P 1,075,688,209.62	P 23,141,221.29	P 0.021
Manila	899,503,840.02	16,819,874.11	0.018
Batangas	54,817,354.97	233,271.77	0.004
Cebu	36,669,889.42	848,068.42	0.023
MIA	25,222,123.43	958,520.20	0.038
Iloilo	10,193,286.23	472,116.58	0.046
Davao	8,031,577.90	390,416.48	0.048
San Fernando	6,967,171.86	130,101.04	0.018
Iligan	5,809,709.99	241,219.17	0.041
Mactan	5,673,007.91	175,076.62	0.031
Cagayan de Oro	4,869,799.81	198,481.98	0.041
Sisain	3,776,493.61	235,910.32	0.062
Zamboanga	2,626,319.28	414,797.77	0.157
Sual	2,211,539.00	99,338.85	0.044
Masao	1,985,397.47	209,730.68	0.105
Dadiangas	1,859,661.24	106,475.70	0.057
Bislig	1,686,566.76	218,478.10	0.129
Dumaguete	840,703.40	130,348.18	0.155
Legaspi-Tobacco	622,643.52	146,094.46	0.234
Jose Panganiban	575,871.92	149,617.68	0.259
Aparri	457,093.99	191,288.90	0.418
Ozamis	334,410.89	76,875.33	0.229
Jolo	298,607.85	143,946.61	0.482
Tacloban	231,357.85	178,551.67	0.771
Surigao	175,407.70	106,038.00	0.604
Catbalogan	129,047.53	34,089.05	0.264
San Jose	110,894.77	94,203.07	0.849
Virac	12,432.10	138,290.55	11.123

Source: Research and Statistics Department, Bureau of Customs



## TRANSPORTATION

Table XII.22 — COMPARATIVE TREND IN PHILIPPINE FOREIGN TRADE BY PORTS OF ENTRY: FISCAL YEARS 1969 AND 1970

Name of Port	Foreign Trade Fiscal Year 1969-1970				Foreign Trade Fiscal Year 1968-1969			
	Imports (CIF)	Exports (FOB)	Total Trade	Trade Balance	Imports (CIF)	Exports (FOB)	Total Trade	Trade Balance
<b>Total</b>	<b>P4,999,040,962</b>	<b>P4,363,876,433</b>	<b>P9,362,917,395</b>	<b>P(635,164,529)</b>	<b>P4,982,161,124</b>	<b>P3,248,114,137</b>	<b>P8,230,275,261</b>	<b>P(1,734,046,987)</b>
Manila	3,083,713,671	616,860,567	4,500,574,238	(3,266,853,104)	3,927,073,717	529,778,802	4,456,852,519	(3,397,294,915)
Alapuri	1,685,457	52,209,941	53,895,398	50,524,484	1,511,363	30,824,835	32,336,198	29,333,472
Batangas	450,681,467	306,909,477	757,590,944	(145,771,990)	367,686,691	54,687,430	422,374,121	(312,999,261)
Bilalig	3,337,499	165,028,818	168,366,317	161,691,319	6,311,166	124,969,313	131,280,479	118,658,147
Cagayan de Oro	22,515,757	166,548,417	189,064,174	144,032,660	33,162,958	159,146,217	192,309,175	125,983,259
Catbalogan	-	68,219,953	68,219,953	68,219,953	-	12,773,642	12,773,642	12,773,642
Cebu	192,095,043	465,512,527	657,607,570	273,417,484	181,200,126	324,150,514	505,350,640	142,950,388
Davao	9,092,249	208,043,432	217,135,681	198,951,183	8,711,744	63,204,553	71,916,297	54,432,809
Dumaguete	35,490,522	407,186,923	442,677,445	371,696,401	37,716,586	370,794,340	408,510,926	335,077,954
Iligan	17,371,455	130,920,152	148,291,607	113,548,697	2,675,271	114,517,014	117,192,285	111,841,743
Iloilo	102,388,265	99,652,213	202,040,478	(2,736,052)	103,133,688	105,579,711	208,813,399	2,546,023
Jolo	63,205,832	545,258,618	608,464,450	482,052,786	76,286,949	410,106,058	486,393,007	333,819,109
Jose Panganiban	274,622	10,320,841	10,595,463	10,046,219	96,696	20,956,482	21,053,178	20,859,786
Laguapi-Pabaco	3,334,520	76,502,961	79,837,481	73,168,441	2,678,726	64,370,038	67,048,764	61,891,312
Macuan	953,971	62,999,716	63,953,687	62,035,745	2,144,425	57,007,058	59,151,483	54,862,633
M I A	41,172,343	5,925,736	47,098,079	(35,246,607)	31,156,736	3,158,863	34,315,599	(27,997,873)
Mambo	68,119,889	112,546,214	180,666,103	44,426,325	63,012,225	87,593,436	150,605,661	24,581,211
Orani	10,249,092	181,581,212	191,830,304	171,332,120	10,673,772	191,114,933	201,788,705	180,441,161
San Jose	705	73,256,417	73,257,122	73,255,712	-	24,050,859	24,050,859	24,050,859
San Fernando	103	12,658,154	12,658,257	12,658,051	-	33,616,543	33,616,543	33,616,543
Siala	52,105,258	311,854,058	363,959,316	259,728,800	94,546,459	166,670,478	261,216,937	72,124,019
Sual	24,641,794	61,271,139	85,912,933	36,629,345	21,552,273	60,447,379	81,999,652	38,895,106
Surigao	6,938,667	54,672,811	61,611,478	47,934,144	1,434,271	32,867,819	34,302,090	31,433,548
Taalogan	3,317,443	3,408,977	6,726,420	3,225,909	637,611	1,930,894	2,568,505	1,293,283
Virao	3,190,608	33,828,580	37,019,188	30,637,772	-	76,050,097	76,050,097	76,050,097
Zamboanga	-	1,035,014	1,035,014	1,035,014	-	-	-	-
	6,380,439	129,577,099	135,957,538	123,196,660	8,737,871	127,446,829	136,204,700	118,668,958

Source: Bureau of Customs, Research and Statistical Department, Collector's Monthly Accomplishment Report.

## CHAPTER XX — COMMUNICATIONS

Communications is considered a critical factor in the development of a country. With the Philippine population increasing at 3.01 per cent annually, the need for a better and effective communication system in the Philippines has been felt for some time.

The growth of the communication system in the Philippines during the last two decades has been a major influence in the social, economic, and political development of the country. It plays a vital role in the industrialization of the economy inasmuch as it is a necessary infra-structure to national development. Communications have served not only as a link between the government and the people and between the different regions, but also as a prime mover and dynamic catalyst for all types of activities, whether government or private.

In business and other areas of human endeavor, an effective communications system has established rapport between the source and the receiver. It has paved the way for a wider dissemination of information, ideas, education and culture throughout the various regions of the country.

It may be stated that significant gains and favorable trends in communications have been attained, despite problems common to developing countries and unfavorable factors that have significantly beset our people. As a force in the changing society of Filipinos, communications deserve recognition and support.

### TELECOMMUNICATION IN THE PHILIPPINES

#### Development of Telecommunications in the Philippines

Historic developments in the Philippine telecommunications systems may be traced back to 1867, at which time the Royal Telegraph Corps of Spain installed the first telegraph line linking Manila and Corregidor. From then on the service was extended to the other parts of the country and in 1890 the first telephone system in the Philippines was inaugurated. By 1879, 65 telegraph offices were already in operation throughout the country — 49 in Luzon, 9 in Panay, 4 in Negros, and 3 in Cebu. These stations were interconnected by a total of 2,818 kilometers of telegraph lines. During the same year, the Eastern Extension Australasia and China Telegraph Company, established under a 20-year contract and with yearly subsidy of \$22,500 from Spanish Government, laid a submarine cable linking Manila with Cebu, Bacolod, Capiz, and Iloilo. It was the same company that facilitated the country's first telegraph link with the outside world via a submarine cable between Bolinao, Pangasinan, and Hongkong.

At the close of the 19th century, the Americans upon gaining complete control of the country constructed telegraph lines, laid submarine cables, and installed a telephone system covering the whole archipelago, mainly to meet the needs of the American military forces. These same lines, however, were turned over to the civil government upon the withdrawal of the American forces. From then on, the gradual transfer of all military lines and offices to the government continued until 1910, with the Bureau of Posts absorbing the system under the government re-organization law of 1906.

The pace of establishing a government telecommunications system went on uninterrupted until the outbreak of World War II when the Bureau of Posts had in operation 108 radio stations and 459 telegraph offices interconnected by 14,607 kilometers of overland telegraph wires and 328 nautical miles of submarine cables. All these lines and facilities, however, were destroyed during the war; by 1945 there were no government telecommunication facilities in operation.

Rehabilitation work on these facilities started upon the restoration of peace and order, with a corps of pre-war engineers and technicians of the Bureau of Posts undertaking the tedious job of planning and determining the extent of damage and the needs of the country's communication facilities. This was done in coordination with a staff of the United States Army Communications Division. Reconstruction of damaged lines was undertaken at the same time that new stations were being installed in major cities and provincial capitals.

Upon the demobilization of the United States Armed Forces in the country, a sizeable stock of surplus communications equipment, supplies, and materials were turned over to the Philippine government; and these became the nucleus of the facilities of the Bureau of Telecommunications.

By virtue of the Reorganization Law of 1947 as implemented by Executive Order No. 94, the Bureau of Telecommunications was created. It started operations on October 4, 1947, with 169 telegraph offices, 39 radio stations, and 3,377 kilometers of telegraphic landlines, all a result of the reconstruction efforts of the government. During the same year, the Bureau started operating the Government Telephone System (GTS) as a temporary relief to the acute shortage of telephone facilities in government offices. The GTS then had only 40 connections operated with the use of a common battery switchboard, and served only the different government offices housed with the Bureau of Posts building in Manila. Necessity and demand have spurred the growth of the GTS so by 1970, or twenty-three years after, it operates a total of 8,107 telephones, all of which are on automatic dialing.

### Telephone Service

The rate of development of the telephone system in the country has been accelerated particularly over the last decade. Aside from the telephone service rendered by the Government Telephone System, several private entities are engaged in furnishing the same service to the public as a result of the increase in population coupled with the higher standards of living and the need to communicate effectively.

Presently, about 89 entities furnish telephone services all over the country, of which the biggest is the Philippine Long Distance Company. The company, incorporated under the Corporation Law of the Philippines on November 28, 1928, has been providing telephone services since 1905, and has been authorized to continue its franchised operations to 2003. It owns and operates 23 local exchanges throughout the Philippines, 11 of which are located in the city of Manila and its suburbs and the remaining 12 exchanges, in other cities and principal towns in the Philippines. All of the company's telephones are now dial operated.

The company, being the principal supplier of long distance telephone service in the Philippines, has its toll network connecting 244 toll stations in 196 municipalities. These in turn interconnect 77 exchanges operated by other private telephone companies and 11 operated by various governmental bodies.

The unprecedented natural calamities and the *de facto* devaluation of the peso in 1970 have not in the least hindered the company's service improvement and expansion program. This is accounted for by the installation of 15,245 new telephones during the year, thus increasing the number of telephones in service from 228,534 in 1969 to 243,779 in 1970, or an increase of 6.67 per cent. During the ten-year period 1961-1970, the average increase in the number of telephones in service is 11.0 percent.

The following table presents the ten-year record of progress in the number of telephones in service:

**Table XX.1 — Number of PLDT Telephones in Service, 1961-1970**

YEAR	Number of Telephones in service	Increase	
		Number	Per Cent
1961	95,135	—	—
1962	103,921	8,786	9.24
1963	110,439	6,518	6.27
1964	113,949	3,510	3.18
1965	124,602	10,653	9.35
1966	141,701	17,099	13.72
1967	156,180	14,479	10.22
1968	184,782	28,602	18.31
1969	228,534	43,752	23.68
1970	243,779	15,245	6.67

Source: PLDT, Annual Report, 1970

Public pay station telephone in service likewise increased from 1,794 in 1969 to 2,185 in 1970, or an increase of 21.79 per cent. Seventy-six (76) units of private automatic branch exchange (PABX), seventy-eight (78) units of private branch exchange (PEX), 243 units of Mini-EX and ATEA equipment were installed throughout the system. At the end of 1970, there were 1,562 units of these switchboards already in service; this represents an increase of 13.52 per cent over that in 1969.

### Telex Service

The inauguration of the first Bureau of Telecommunications telex line between Manila and Baguio on August 8, 1968, marked another milestone in Philippine telecommunications. This has overcome the peculiar geographical make-up of the country which, from time immemorial, has been a stumbling block to the development of Philippine telecommunications. However, while the telecommunications authorities agree that the solution is to provide a backbone communications network, which will link major populous areas all over the country, several requirements had to be met, not only from the standpoint of economical operation but also from the standpoint of efficiency and reliability.

Some of the important requirements are:

1. The network must interconnect primary population and commercial centers with capability of branching out to secondary areas.
2. The network must be capable of multichannel transmission at least 60 voice channels initially, and it should be expendable to meet future traffic in the next five years.
3. It should meet accepted international (CCITT and CCIR) standards as to grade with service, signal-to-noise ratio, and reliability.

There were several systems to choose from and extensive studies had to be made for wise selection.

The open-wires and co-axial cables offer wideband capacity but the cost of right-of-ways and pole-line construction will be tremendous; besides, the Philippines' being in the typhoon belt, overland wires would be at the mercy of strong winds; and floods would soak the underground cables. Moreover, costly undersea cables will have to be laid to span bodies of water for island-hopping, aside from the use of a costly cable-maintenance ship.

The high frequency system is low cost, but it suffers in two respects: the problem of atmospheric disturbance and of channel limitation. Furthermore, crowding of the high frequency spectrum continues to be the perennial headache of users of this band.

The line-of-sight microwave system is a partial answer to the Philippine communications problem. It can be applied over great stretches of land where repeaters can be located on elevated areas within optical distance of each other, systems of 1200 voice channels being available commercially. As this system was found desirable for Luzon, a 300-channel microwave system on 7,000 MHz from Baguio to Legaspi thru Manila was chosen for the backbone network. Tributary circuits were to work on UHF or VHF as dictated by distance and traffic density. The Bureau of Telecommunications has now fourteen (14) such microwave stations operating in Luzon extending from Baguio to Legaspi.

### **Tropospheric Scatter System for the South**

The UHF/VHF system is good for 24 channels in the 450 MC band and 12 channels on the 150 MC, bridging the Visayas and Mindanao areas, while Luzon cannot be equipped with the line-of-sight systems because of the water spans in between. Fortunately, a new radio system had been tried in U.S. military installations and perfected, where the transmission of great amounts of power even at microwave lengths can deliver energy over long distances and still be received at a useful level. The propagation technique is called tropospheric scatter. Both the transmitting and receiving antennas are aimed at grazing the horizon so that the beams meet at a common reflecting volume in the troposphere. To the layman, the energy transmission of the tropo scatter system may be explained by comparing it to the glow-of-light at dawn when the sun is about to emerge over the horizon. The sun (source of energy) is not seen but light is definitely visible although at a very subdued intensity.

The tropospheric scatter system is best suited to the economy and geography of Southern Philippines. It has the capacity for medium traffic density applications and for long distance coverage which is ideal for a backbone network between Luzon, Visayas, and Mindanao. The tropospheric scatter system of the Bureau of Telecommunications has a 120-channel capacity (minimum), using 10-kilowatt transmitters at Tagaytay, Romblon, and Cebu. From Cebu to Cagayan de Oro, one kilowatt unit will be used. Although computations and tests show that Tagaytay and Cebu can be spanned directly by 10-kilowatt units, a repeater in Romblon was added in order to avail of more bandwidth. The system works on the 1,000 MHz band and uses 60 feet parabolic reflectors. Quadruple diversity (a combination of frequency and space diversities) is resorted to in order to achieve CCIR standards of 50 db S/N ratio at 99.9 per cent reliability. The receivers do not use masers or parametric amplifiers and therefore do not involve cryogenics (method for using very low temperature).

The Philippines has been divided into four major communication regions under the scheme, with Regional Communication Centers at Baguio, Manila, Cebu and Cagayan de Oro. At Baguio, the network branches out to the Ilocos Region, Pangasinan, and Cagayan Valley. Manila, the National Switching Center, serves Central Luzon, the Southern Tagalog and Bicol Regions. Cebu is the center for the whole Visayas, while Cagayan de Oro is the center for Mindanao. This radio network will carry telephone and telex traffic to and from 48 cities and capital towns. The Bureau of Telecommunications has also fully automatic telephone exchanges in 27 localities, with a total service capacity of 18,000 subscribers.

The microwave system from Baguio to Manila has been in operation since January 1966. Telegraph delivery time from Baguio to areas in Manila with telex service has been cut down to 15 minutes. The Manila-Cebu tropospheric scatter system is now carrying trial traffic. The circuit is quiet and conversation is clear and intelligible as if one is talking to a person two feet away. This is the first commercial tropo station to be made operational for domestic service in the Philippines.

The contract for the complete nationwide telecommunications network was awarded to the International Telephone and Telegraph Corporation in the amount of \$11,880,000. The telecommunications equipment has been supplied by ITT manufacturing companies in Germany, Belgium, and Australia. ITT Export Corporation supplied other communications equipment from the United States. When completed and fully operational, it will be one of the most modern and comprehensive telecommunication networks in this part of the world and probably the first multi-hop commercial tropo scatter link in the world.

### Telecommunications Statistics

The last ten years, 1961-1970, reflected an increasing trend in the number of telecommunication offices. Whereas during the fiscal year 1961-1962 there were only 1,099 telecommunication offices in operation, by fiscal year 1969-1970 the total number rose to 1,345, representing an increase of 22.47 per cent. Of this total, wire telegraph offices had the biggest percentage, 58.25 per cent, and showed a relatively steady rise in number. It may be interesting to note that radio-telegraph offices had a total of 431 during the fiscal year 1966-1967, but they showed a relatively small number during the other years. This arises from the fact that while some radio-telegraph stations were being established, some stations were converted to telegraph stations. The same is equally true in the case of telegraph-telephone stations.

Similarly, the total number of GTS telephone in operation increased during the ten-year period, with an average annual increase of 2.85 percent.

It may be noted that Table XX.2 shows an increasing pattern of telecommunication system during the ten-year period under review. This may be credited to the growing awareness and acceptance of the role of communications in the changing Filipino Society.

Table XX.2 - TELECOMMUNICATION STATISTICS - FISCAL YEAR 1961-62 TO FISCAL YEAR 1969-70

I t e m	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Total number of Telecommunication Offices	1,099	1,157	1,202	1,235	1,272	1,287	1,278	1,302	1,346
Radio	266	273	288	301	297	a/	299	300	321
Wire Telegraph	616	654	673	694	704	716	739	763	784
Radio Telegraph	75	76	86	89	120	431	139	138	144
Telegraph-Telephone	142	154	155	151	151	140	101	101	97
Total number of GTS* telephones sets in operation	6,587	7,233	7,308	7,337	6,971	7,336	7,201	6,964	8,187
Automatic	5,122	5,858	5,901	5,986	5,175	6,439	-	-	8,107
Manual	1,465	1,373	1,407	1,351	1,796	897	-	-	-
Telephone Exchanges	5	5	5	5	5	5	1	12	52
Automatic	3	3	3	3	3	3	-	-	52
Manual	2	2	2	2	2	2	-	-	-
Number of Places Served by Interprovincial Telephone Services	59	59	59	59	59	59	44	56	67
Number of Telephone calls handled	90,964	111,453	89,175	187,838	236,296	220,014	216,423	287,108	21,711,183 <sup>b/</sup>
Interprovincial calls	67,243	89,408	76,230	169,607	210,575	192,479	189,516	264,880	593,826 <sup>c/</sup>
Overseas calls	23,721	22,045	12,945	18,231	25,721	27,535	26,909	22,228	27,198 <sup>d/</sup>
Number of countries served	38	38	38	41	41	41	48	25	24
Telegrams filled for transmission	4,432,627	4,615,960	5,133,042	4,811,711	3,044,332	4,687,618	2,836,992	2,769,065	4,809,901
Suriff	2,716,341	2,903,954	3,150,945	2,980,503	2,982,219	2,910,281	1,137,539	1,226,030	2,763,628
Free (election census, Bn. of Posts, etc.)	1,716,286	1,712,006	1,982,097	1,829,208	2,062,113	1,777,337	1,699,453	1,543,035	2,046,273
Number of Offices authorized to handle social telegram services	526	578	621	743	822	843	850	857	840
Number of Offices authorized to handle night telegram services	41	46	48	50	99	102	98	99	97

\* Government telephone system  
 a/ Included in Radio-Telegraph  
 b/ Local  
 c/ Domestic  
 d/ Foreign

Source: Department of Public Works and Communication, Bureau of Telecom.

## **Government Control Over Telecommunications Agencies**

**Telecommunications, whether telegraph or telephone, as well as radio communications, are subject to the jurisdiction of existing laws and regulations pertaining to their establishment and operation.**

**Radio communications in the Philippines are regulated by the Radio Control Office under the provisions of Republic Act No. 3846. As amended, the law authorizes the Radio Control Office to enforce and administer domestic and international radio laws and regulations pertaining to the installation, construction and establishment, use and operation of all classes of radio stations, radio training schools, and all forms of radio communications in the Philippines. It also enforces the provisions of the Ship Radio Law, Republic Act No. 3396, regarding the installation and inspection of radio equipment on board passenger and cargo ships or vessels for the safety of life and property at sea, and Republic Act No. 584, which regulates the construction and/or manufacture, possession, ownership, purchase, sale and transfer of radio transmitters and receivers or combination of radio transmitters-receivers in the country. The Office is likewise charged with the duty of giving examinations to applicants for the different classes of commercial and amateur radio operator licenses, and the issuance of the corresponding radio operator licenses.**

**In pursuance of the above functions, the Radio Control Office aims to achieve three objectives, namely: the promotion and development of a wholesome radio communication in the country in order to encourage a nationwide and more effective use in the public interest; the maintenance of an orderly, interference-free, rapid and effective radio communication system; and the protection of the national security through proper guarding of the airline.**

**It may be stated in this connection that the Radio Control Office exercise supervision and/or control not only over the operation of privately-owned radio stations but also those operated by various agencies of the government, such as the Armed Forces of the Philippines, Bureau of Telecommunications, Bureau of Public Works, Bureau of Quarantine Service, Bureau of Prisons, Bureau of Coast and Geodetic Survey, Civil Aeronautics Administration, Civil Defense Administration, Weather Bureau, National Bureau of Investigation, and other national government agencies; and those operated by different provincial and municipal governments as well as those stations maintained by the US Armed Forces in the Philippines, as regards the assignment of frequencies and call-sign and the elimination and prevention of interferences.**

**In the course of achieving the above mentioned objectives, the Radio Control Office performs three important activities, the inspection of radio stations, examination and licensing of radio operators, and registration of radio transmitters and transceivers.**

**The inspection of radio stations is done to determine whether or not the various stations are operating in compliance with the terms and conditions provided for in their permits and/or licenses and with the provisions of the radio law and the rules and regulations promulgated thereunder. However, this program was not fully carried out owing to the limitation of the funds of the Office for field activities. This is accounted for by only 2,121, or 20.02 per cent of the total number (10,596) of licensed radio stations inspected, during the fiscal year 1969-1970.**

**The Office has been scheduling the regular examination for commercial operator license of all classes in the different places of the country such as Manila, Cebu, Davao, Iloilo, Baguio, Cagayan de Oro and other places. Special examinations for third class commercial radio-tele-type operator licenses, restricted land mobile radio-telephone operator permits, ship low power radio telephone operator permits, as well as code examinations are given. During the period, 1969-1970, records of the Radio Control Office showed that there were 2,532 applicants given regular examinations, a total of 744 applicants given special examinations, and 6,815 radio operator licenses of all classes issued including new and renewal.**

Under the provisions of Republic Act No. 584, which took effect on January 1, 1951, owners and/or possessors of radio transmitters and transceivers are required to register such equipment with the Radio Control Office. From July 1, 1969, to June 30, 1970, there were 393 permits issued to owners and/or possessors of radio transmitters and transceivers, consisting of 212 permits to purchase, 119 possession permits, 3 selling permits, one transfer and 20 construction permits, 35 dealers, and 13 manufacturers permits.

### Radio Communications Statistics

Table XX.3 presents the growth of the licensed radio stations operating throughout the Philippines during the ten-year period 1960 to 1970. Generally, all classes of radio stations in operation reflected a steady rise throughout the period. A total of 19,596 were operating as of 1970, of which 2,446, or 23.08 per cent, were government stations while 8,150 or 76.92 per cent, were privately-owned and operated. This represents a 61.24 per cent increase for government stations and 265.63 per cent, or more than two times increase, or for private stations over those in 1960.

Table XX.3 - NUMBER OF RADIO STATIONS OPERATING IN THE PHILIPPINES, FROM FY 1960 TO FY 1970

Class of station	1960	1961	1962	1963	1964	1965*	1966	1967	1968	1969	1970
1. Fixed point to point	816	892	912	1,177	1,514	1,981	2,226	2,624	3,295	3,543	3,727
2. Broadcast radio station	108	111	122	122	144	150	180	192	254	264	288
3. Television station	4	4	6	12	12	13	13	13	14	15	18
4. Ship radio station	526	615	693	823	904	1,023	1,131	1,292	1,539	1,662	1,750
5. Coastal radio station	64	64	65	69	78	89	104	111	128	139	142
6. Base radio station	42	43	43	43	51	55	67	83	105	115	127
7. Land mobile station	288	302	315	377	426	491	543	635	826	899	1,047
8. Aeronautical fixed station	90	92	92	92	97	117	117	117	117	117	117
9. Aeronautical radio station	42	42	42	42	44	48	48	58	74	82	89
10. Aircraft radio station	109	116	124	124	145	169	200	266	474	516	557
11. Commercial receiving station	14	14	14	19	24	24	26	28	30	38	32
12. Amateur radio station	94	96	98	114	124	145	148	157	173	182	202
13. Radio training station	32	33	35	40	42	43	44	45	52	54	55
<b>Subtotal</b>	<b>2,229</b>	<b>2,424</b>	<b>2,561</b>	<b>3,054</b>	<b>3,603</b>	<b>4,348</b>	<b>4,847</b>	<b>5,621</b>	<b>7,081</b>	<b>7,621</b>	<b>8,150</b>
<b>Total government stations</b>	<b>1,517</b>	<b>1,540</b>	<b>1,550</b>	<b>1,550</b>	<b>1,550</b>	<b>1,550</b>	<b>1,550</b>	<b>2,195</b>	<b>2,357</b>	<b>2,405</b>	<b>2,446</b>
<b>GRAND TOTAL</b>	<b>3,746</b>	<b>3,964</b>	<b>4,111</b>	<b>4,604</b>	<b>5,153</b>	<b>5,898</b>	<b>6,397</b>	<b>7,816</b>	<b>9,438</b>	<b>10,026</b>	<b>10,596</b>

\* Data on government stations not complete.

Source: Radio Control Office, Annual Report 1970-1971.

### Overseas Telecommunications

Since the establishment of the country's first telegraph link with the outside world via a submarine cable between Pangasinan and Hongkong, the demand for an efficient and more modern overseas telecommunications system has grown rapidly through the years. To cope with the increasing public demand, the Philippine Long Distance Telephone Company, aside from furnishing telephone services all over the country, has gone a long way in expanding and inter-connecting the Philippines with the rest of the world.

The company is the exclusive owner, subject to indefeasible rights of user granted to certain other companies, of that portion of the Philippines-Guam Cable System located in the Philippines and its territorial waters. It has purchased indefeasible rights of user in certain circuits in the Transpacific Cable System connecting Guam and Hawaii and the United States Mainland. Utilizing these cable facilities, leased circuits in the Pacific Satellite Communications System, and tropospheric and high frequency radio-telephone circuits made available through contractual arrangements with other international carriers, the company has provided overseas communications service.



In the overseas toll operations of the company, 17 additional circuits were installed in 1970, of which 3 circuits were for the newly established direct service to Australia and the rest were additional circuit requirements to handle increasing call volumes for services to the United States, Japan, Korea, Guam and Hawaii. During the same year, the company placed in service the first phase of its "Pulse Code Modulation" (PCM) cable carrier system to keep up with the continuing technological progress and modernization and to reduce susceptibility to disturbances caused by electrical noise.

With the rapid growth in international telecommunication traffic demand, another step forward in that field was taken; that is, through space. On April 1, 1967, the wonders of worldwide satellite communications came to the Philippines when the first message was sent through the system at the station at Barrio Pinugay in Tanay, Rizal.

The local earth station is owned by the Philippine Communications Satellite Corporation (PHILCOMSAT), a subsidiary of the government-owned National Development Company, which owns 55 per cent of the shares in the entity. Philippine Overseas Telecommunication Corporation (POTC), a private corporation, owns the other 45 per cent.

With the Philippines now linked with the rest of the world, the day is not far off when a person can simply pick up his telephone or tune in his television set to know first-hand the latest development in other countries.

### **Radio and Television Broadcasting (The Broadcasting Industry)**

The last decade has witnessed the growing recognition and acceptance of the role played by networks in boosting socio-economic development of the country. With a population of more than 36 million people, the problem of communication has been solved with the advent of radio-TV consciousness. Radio and television broadcasting, among the various media of information, have paved the way to a better and effective means of transmitting information, ideas, as well as opinions, to a vast number of people at any given time. Through these media, the people have become aware of the aims of the socio-economic development programs of the government.

Radio is far more effective than television or print media in the sense that it possesses some intrinsic characteristics, such as speed, extensiveness, portability, and flexibility as it is capable of responding to changing new situations. Cost-wise, radio sets are much cheaper than television sets. Compared with the print media, radio communication is faster and more effective in conveying information to the people. This is evidenced by statistics showing that of the total population, 63.92 per cent listen to radio often, 19.23 per cent, occasionally; and only 16.85 per cent, rarely or never. On the hand, only 28.72 per cent of population read newspapers and other publications often, 26.67 per cent, occasionally; and 44.61 per cent, rarely or never.<sup>1</sup> This shows that nearly one-half of the total population of the Philippines is not reached by the print media.

Television, on the other hand, is far behind radio in its effectiveness in communication, and the contributing factors are undoubtedly economic in nature such as, the rising costs of television broadcasting and the lack of modern technological equipment and electrical power in most rural areas wherein the bulk of the population lives. Statistics show that only 6 percent of our population watch TV very often, 4 percent often, 12 percent, occasionally, and 18 percent, rarely, while 60 percent never watch TV.<sup>2</sup>

<sup>1</sup> Published in the Weekly Magazine, July 26, 1971.

<sup>2</sup> Ibid.

Realizing the influence of radio and television broadcasting on the social, economic, and political development of the country, the broadcast industry has become the most competitive business in the country today. With more than 252 radio stations in the country, 154 were commercial franchises and the others were politically controlled. There are about 16 television stations all over the populous areas, 7 of which are based in the Greater Manila Area. Today, no other industry is more competitive than the broadcast industry. This is evidenced by the fact that the slightest move of the dial will bring to the listener another radio or television station.

The radio and television industries have undergone a series of transformations in their expansion programs. This is because their actions and decisions have to be geared towards retaining and maintaining listenership. Towards this objective, radio and television have successfully become the primary vehicles of information, education, culture and entertainment.

### THE POSTAL SERVICE

The development of the postal service has brought about significant gains and favorable trends on the economic, educational, and cultural aspects of the nation. This is because it is the most extensive and widely used means of communication and channel of exchange of money throughout the country. It is the biggest carrier of information and money which are of vital importance in any government or private undertaking.

Under the Postal Law, as provided for in the Revised Administrative Code of the Philippines, the Bureau of Posts headed by the Postmaster-General is charged with rendering four public services, such as, mail service, money service, telegraphic transfers, and postal savings service.

#### Mail Service

The mail service started during the Spanish regime in 1767. It was then very crude as it involved physical transfer of mail matters through the "badageros", or mail carriers. Letters changed hands depending upon the number of towns between the place of mailing and the destination. There was no secrecy of communication then because letters were merely folded and no envelopes were used.

The increasing volume of mails has brought about pressures upon the service, demanding a more scientific distribution and transport of mails in less time and with fewer handlings. To meet this need, the Bureau of Posts underwent changes and adopted new procedures to shorten circuitous work flow, to increase efficiency in mail processing, and thereby arrest the growing congestion. The Bureau established more distributing centers and adopted regionalized mail-processing system. All these are designed to lessen the number of handlings as mails coming from one region, and those intended for another region need not be coursed through the main post office in Manila. The following is the final grouping of the distributing centers and regional offices throughout the Philippines:

#### Postal Region No. 1

Headquarters: Cabanatuan City

Mail Distributing Centers:

Cabanatuan City

1. Aurora Sub-Province, (Baler, Maria Aurora, Dipaculao, Casiguran and Dingalan)

2. Nueva Ecija

Mail Distributing Center: Bayombong,  
Nueva Vizcaya

1. Apayao-Kalinga
2. Cagayan
3. Ifugao
4. Isabela
5. Nueva Vizcaya

#### Postal Region No. 4

Headquarters: San Pablo City

1. Laguna
2. Marinduque
3. Quezon

#### Postal Region No. 5

Headquarters: Legaspi City

Mail Distributing Center: Naga City

1. Camarines Norte
2. Camarines Sur

Mail Distributing Center: Legaspi City

1. Albay
2. Catanduanes
3. Masbate
4. Sorsogon

**Postal Region No. 2****Headquarters: Dagupan City****Mail Distributing Center: Dagupan**

1. Abra
2. Benguet
3. Ilocos Norte
4. Ilocos Sur
5. La Union
6. Mountain Province
7. Pangasinan

**Mail Distributing Center: San Fernando, Pampanga**

1. Bataan
2. Pampanga
3. Tarlac
4. Zambales

**Postal Region No. 3****Headquarters: Quezon City****Mail Distributing Center: Manila**

1. Batanes
2. Bulacan
3. Cavite
4. Manila & Suburbs (including Quezon City, Pasay City and Caloocan City)
5. Palawan
6. Rizal
7. Romblon

**Mail Distributing Center: Iligan City**

1. Lanao del Norte
2. Lanao del Sur
3. Misamis Occidental

**Postal Region No. 9****Headquarters: Zamboanga City****Mail Distributing Center: Zamboanga City**

1. Sulu
2. Zamboanga del Norte
3. Zamboanga del Sur

**Postal Region No. 6****Headquarters: Cebu City****Mail Distributing Center: Cebu City**

1. Bohol
2. Camiguin Sub-Province
3. Cebu City
4. Negros Oriental

**Mail Distributing Center: Tacloban City**

1. Eastern Samar
2. Leyte
3. Northern Samar
4. Southern Samar
5. Western Samar

**Postal Region No. 7****Headquarters: Iloilo City**

1. Aklan
2. Antique
3. Capiz
4. Iloilo
5. Negros Occidental

**Postal Region No. 8****Headquarters: Cagayan de Oro City****Mail Distributing Center: Cagayan de Oro City**

1. Agusan
2. Bukidnon
3. Misamis Oriental
4. Surigao del Norte

**Postal Region No. 10****Headquarters: Davao City****Mail Distributing Center: Davao City**

1. Cotabato
2. Davao Oriental
3. Davao del Norte
4. Davao del Sur
5. South Cotabato

The number of post offices throughout the country likewise increased during the ten-year period 1960-1970. In 1970 total number of post offices is 1,458 representing an increase of 144 or 10.96 per cent greater than that of 1961.

**Money Order Service**

The money order service was established in 1899 and had been under the United States Post Office Department for about two years. It was made independent by virtue of an act of the Philippine Commission on July 1, 1901. Since then, increasing efforts have been exerted to modify

the old system of money order service. By 1969 full mechanization of the service was adopted, with its concept centering on the adequate control, means for detection of and deterrence to forged, counterfeited and altered money orders, and the usefulness of the money order in the channels of finance and commerce. The end in view was to accelerate the economic development of the Philippines.

The new system, costing about two and half million pesos (P2.5 million), was designed to improve its efficiency and provide more security in the issuance and payment of money, as well as speed and accuracy in accounting and auditing transactions.

The following table presents the trend in the growth of money order transactions for fiscal year 1961 to 1970.

**Table XX.4 — Summary of Money Order Transactions for Fiscal Year 1961-1970**  
(In thousand pesos)

Fiscal Year	M O N E Y O R D E R		
	Issued	Paid	Fees Collected
1960-1961	P 261,778	P 272,520	P 1,610
1961-1962	299,938	247,015	1,632
1962-1963	287,720	390,914	1,717
1963-1964	317,125	319,548	1,835
1964-1965	319,506	316,554	1,839
1965-1966	307,314	311,856	1,767
1966-1967	244,539	246,529	1,453
1967-1968	277,447	278,439	1,730
1968-1969	254,282	165,656	1,783
1969-1970	221,762	216,212	1,398

Source: Bureau of Posts

During the year 1970 the number of domestic money order issued totalled 2,524,289 while money orders payable abroad numbered to 2,526,241. These amounted to P221,762 thousand, representing a decrease of 12.77 per cent from the previous years' transactions. The total fees collected amounted to only P1,398 thousand, or a decrease of 21.59 per cent.

On the other hand, money orders paid during the year amounted to P216,212 thousand, reflecting a 30.52 per cent increase over those paid in 1969. Evidently, during the ten-year period 1961-1970, there were fluctuations in the amount of money order issued and paid as reflected in the table. While the first five years showed an increasing trend, the latter part of the ten-year period reflected a downward trend.

Similarly, changes have been taking place with regards to money order offices. In 1970, 36 new money order offices were opened, increasing the total number of offices in operation to 1,441. Such an increase was brought about by the pressure of the increasing volume of money-order transactions.

### Telegraphic Transfer Service

The year 1970 ushered in significant changes in the postal service in the country as reflected in the telegraphic-transfer service of the Bureau of Posts. As of 1970, a total of 1,006 telegraphic transfer offices were in operation. However, in spite of the increase in the number of offices, telegraphic-transfer transactions have steadily decreased since 1967. During the fiscal year 1969-1970 there were issued telegraphic transfers amounting to P73,839 thousand, for which total fees

collected amounted to ₱555 thousand. This reflected a decrease of ₱8,866 thousand, or 10.72 per cent, in the amount and 11.48 per cent decline in the fees realized from the previous year's (1968-1969) transactions. Likewise, telegraphic transfers paid during the same period amounted to only ₱74,926 thousand, which is 15.88 per cent less than that registered in fiscal year 1968-1969. Throughout the ten-year period, telegraphic transfer transactions indicated a fluctuating trend, with the biggest per cent increase being realized in 1963, when fees collected increased by 24.22 per cent over those of the previous year (1962). On the other hand, the biggest decline in the fees collected was registered in 1970.

**Table XX.5 — Summary of Telegraphic Transfer Transactions for Fiscal Year 1961-1970**  
(Values in thousand pesos)

Fiscal Year	T E L E G R A P H I C		T R A N S F E R	
	Issued	Paid	Fees Collected	
			Value	Per cent Change
1960-1961	₱ 39,065	₱ 39,597	₱ 266	—
1961-1962	47,635	46,748	322	21.05
1962-1963	59,062	59,968	400	24.22
1963-1964	68,552	68,698	462	15.50
1964-1965	74,101	73,955	501	8.44
1965-1966	83,438	81,758	569	13.57
1966-1967	89,782	92,151	638	12.13
1967-1968	89,029	89,547	700	9.72
1968-1969	82,705	89,066	627	-10.43
1969-1970	73,839	74,926	555	-11.48

Source: Bureau of Posts

### Postal Savings Bank

The "floating rate system"<sup>3</sup> economy of the country has not in any way been an obstacle to the role played by banks as an investment institution. More and more banks were being established with a view to satisfying prospective depositors. Yet, the response of the public towards channeling their deposits to the Postal Savings Banks was not as encouraging as in the private and commercial banks, in spite of the increase in the rate of interest (from 3 per cent to 4 per cent per annum) paid by the Postal Savings Bank. This is because the 6 per cent per annum, compounded quarterly, rate of interest paid by private and commercial banks is more attractive to the depositors. Furthermore, the existence of more than 300 rural banks in the provinces also provide stiff competition to the provincial branches of the Postal Savings Bank.

In spite of these barriers, however, efforts to hasten a more efficient postal banking service continued, resulting in the establishment of eighteen (18) new postal savings bank branches. The number of branches in operation increased to a total of 1,453, representing an increase of 1.25 per cent over that of 1969.

The year 1970 noted a decrease in the number and in money value of both deposits received and withdrawals paid by the Postal Savings Bank. The trend during the ten-year period was not encouraging as it continued to follow a steadily declining pattern. Table XX.6 reflects clearly the changes in the Postal Savings Bank transactions during the fiscal years 1961 to 1970. Savings deposits amounted to only ₱22,595 thousand in fiscal year 1970, or 21.71 per cent less than the 1961 amount. Withdrawals paid during 1970 was 10.34 per cent and 12.68 per cent less than the total paid in 1969 and 1961, respectively.

<sup>3</sup> A system developed by the Central Bank on February 21, 1970 whereby the Philippine peso was allowed to float in the exchange market according to the 'interaction' of supply and demand.

**Table XX.6 — Summary of Postal Savings Banks Transactions, for Fiscal Year 1961-1970**  
(In thousand pesos)

Fiscal Year	Deposits Received	Withdrawals Paid	Sale of Thrift Stamps	Sale of Home Savings Boxes
1960-1961	P 28,861	P 28,050	P 38	P 4
1961-1962	31,769	29,432	45	1
1962-1963	35,469	30,943	96	1
1963-1964	39,517	34,379	103	a
1964-1965	33,651	37,695	83	1
1965-1966	32,968	33,011	49	5
1966-1967	28,601	33,981	33	1
1967-1968	26,295	28,876	39	a
1968-1969	23,469	27,321	26	a
1969-1970	22,595	24,493	28	a

a Less than P1,000

Source: Bureau of Posts

### PRINT MEDIA<sup>4</sup>

The role of the press has been to inform, to educate, to entertain, and to criticize. Towards these ends, the different sectors of the economy have maintained 1,253 kinds of publications. These publications include newspapers, magazines, manuals and other reading materials appearing in two forms; one in "quality paper" which is usually in English and the other in "tabloid" form, which is in bilingual language and with a mass circulation.

Newspapers and magazines, among others, have a larger circulation and serve as a vital channel for diffusion of information and ideas. Presently, there are 21 daily newspapers in the Philippines, 17 of which are based in the capital with a combined circulation of less than a million copies a day. The biggest newspaper accounts for about 25 per cent of the total, leaving the other 20 to share the remaining 75 per cent. There are 16 weekly magazines published in Manila, of which 11 are in English and 5 are in the vernacular, with a total circulation of about 970,000 copies a week. On the basis of magazines sold every week, only 430,000 are sold independently, and the remaining 540,000 copies, were sold to persons who have already bought newspapers.

Supplementing the dailies in reaching the remote places are 35 community papers, with an average circulation of 3,000 copies. These community newspapers refer to those tabloid form of media which are financed by local politicians and businessmen.

It is reputed that in the near future the Philippines will be facing another problem regarding language. Presently, many are advocating a shift in the medium of communication, that is from English to Pilipino. The problem lies in the mass re-training of media personnel, which involves much time and financial difficulties. The aggregate number of newspaper journalists in the Philippines is 1,193, out of which 986 presently write in English while 116 write in Pilipino and 92, in Spanish and Chinese. For the metropolitan papers (which are considered the national papers) there are 279 who write in English, 37 in Pilipino, 77 in Chinese, and 14 in Spanish.

<sup>4</sup> Sources of Data.

1. Department of Public Work and Communication, Bureau of Posts as published in the Journal of Philippine Statistics, Vol. 22, No. 4; 4th Qtr., 1971.

2. Monthly Publication of the Philippine Press Institute "The Press Forum".

In the Philippines, if only daily newspapers are considered, the diffusion rate is 30 copies per 1,000 people, while world average is 102 copies per 1,000 people and the Asian average is 40 copies per 1,000 people. Compared with Japan and Singapore where diffusion rates are 487 and 268 copies per 1,000 people, respectively, the Philippine diffusion rate is very low. However, the Philippine figure is considered favorable when compared to Indonesia, India, and Ceylon where the average diffusion rate is less than 10 copies per 1,000 people. The low newspaper diffusion rate in the Philippine is attributable to the high cost of newspapers relative to the average income of an ordinary laborer. In the Philippines, an ordinary factory worker should at least spend 21 days' wage to be able to have an annual subscription to a newspaper, while his Japanese counterpart would have to spend only 4 days' wage to buy such a subscription.

On the advertising side, the print media's share of the total advertising revenue for the past 10 years has dropped drastically. At the initial year 1961, fifty per cent of the total advertising revenue had been represented by the print media; while television got only five per cent of the total outlay. By 1970, however, outlays for print media accounted for only 22.9 per cent of the advertising peso, while television's share jumped to 27.1 per cent, and radio moved from 23.5 per cent in 1961 to 25 per cent in 1970.

It may be stated that in spite of the problems met by the print people, signs of expansion have been indicated in future plans. During the 1970's, four of the Philippine daily newspapers plan to improve their printing presses by introducing photo-offset techniques in their production systems. This kind of publication produces photos finished in color. One of them, the Manila Chronicle, offers its readers pictures in full color everyday. By 1973 it is expected that newsprint production will start operation locally. This step will not only benefit the print people but also the government sector because dollar expenditures on importation of bulk volumes of newsprints will be lessened and consequently will bring down the cost of newspapers. This, in turn, would result in a greater circulation and availability of newspaper to the different areas of the country.

## CHAPTER XXI — DOMESTIC TRADE AND PRICES

### DOMESTIC TRADE

Trade is a repeated procedure of exchange of goods and as part of production includes transportation, warehousing, storage and services like advertising. This chapter is limited to merchandising, service trade and the marketing of agricultural products. A part of this chapter discusses the storage and warehousing establishments, cooperative organizations involved in domestic trade and government offices charged with the duties of control and regulation of domestic trade. Price and price indices are also included to measure the changes in prices of goods and services.

The Bureau of the Census and Statistics has conducted three inquiries which covered this particular field since 1939, but comparison could be made only in terms of national aggregates as to the number of establishments covered, employment, capitalization and cost receipts. Results of such previous surveys could not be compared because of basic differences in scope, coverage, classification of activities, type of data sought, questionnaire design, concepts and terms applied. In all of these surveys, however, a wholesale establishment was a licensed unit at a single physical location and under one control engaged primarily in the resale of goods (without transformation) to business units, institutions and the government. Considered as retail establishments were establishments engaged in the resale of goods for personal or household consumption or utilization while establishment engaged in both activities were classified under wholesaling. Based on employment size, establishments were classified as large or small. Establishments employing an average of ten or less workers were classified as small while those employing more than ten workers were classified as large.

In 1968, the 1967 Economic Census was conducted by the Bureau of the Census and Statistics. The tables presented here were taken from the preliminary results of this census and differences are most likely to occur between the data herein and the final census releases in terms of total establishment count and employment.

It is necessary to explain here that three-digit industries of wholesale, retail and service trade establishments are for large establishments only. Such data include the total number of establishments and total employment. The employment includes working owners, members of the household engaged in the activity of the establishment and other related workers. The tabulations for four-digit industries of retail and service trade establishments presented only the total number of establishments for the whole Philippines. Both wholesale and retail establishments comprise of nine categories while service establishments had seventeen classifications.

#### Retail

Domestic trade ranks third among the types of industries generating the national product. One reason for this is that in the Philippines distribution of goods is a form of self-employment. While commodity production has advanced in terms of manufacturing, the distribution of goods has lagged behind. The traditional practice of buying and selling of goods through wholesale and retail methods account for the numerous independent wholesalers and retailers in the Philippines.

Of the 102,700 retail establishments counted in 1967, 2,097 were large establishments. A total of 76,960 retailers were engaged in sari-sari (variety) stores, as shown in Table XXI.1. The fact that retail stores are found in all parts of a locality, consumers are at an advantage because they can easily shift from one store to another. This practice, however, has not abated the rising of prices nor improved the service rendered to the customers.



The retail establishments in the country buy supplies and display them in stands or forms convenient for the customers to see and choose from. Ordinarily, the retailers buy from whole sale distribution or processors in relatively large amounts and pack them into small lots to suit the consumers' day to day needs. In some instances, these same retailers purchase their supplies from various types of subsidiary wholesalers who buy from large distributions that offer specialized delivery services.

**Table XXI.1 — RETAIL ESTABLISHMENTS BY SELECTED INDUSTRIES  
FOR THE PHILIPPINES: 1967**

<b>I n d u s t r y</b>	<b>Number</b>	<b>Per Cent of Total</b>
<b>Total</b>	<b>102,700</b>	<b>100.00</b>
Sari-sari (variety) stores	76,960	74.94
Groceries and supermarkets	3,770	3.67
Fresh meat, poultry, fish and other sea food retailers	7,040	6.85
Dried and cured fish and other processed sea food retailers	1,414	1.38
Fresh fruits and vegetables retailers	3,619	3.52
Cigarette stands and peddlers	3,166	3.08
Processed meat, dairy and fruit, vegetable and bakery products retailers	3,027	2.95
Processed sugar, cocoa, confectionery and miscellaneous food products, retailers	423	.41
Other beverage and tobacco retail stores n.e.c.	3,281	3.20

Source: DCI Bureau of the Census & Statistics, 1967 Economic Census.

The fresh meat, poultry, fish and other sea food retailers totalled 7,040 which was 6.85 per cent of the total number of retail establishments. They are mostly found in public markets where they hold and lease stalls on a daily basis. They package or bundle the commodity as per the individual consumer's necessity. The work may take place at the customer's direction as in the cutting of the meat and dressing of chicken. The modern trend is toward more packaging at the wholesale or processing stage where it is done economically by specialized machines. While groceries and supermarkets are other outlets of retailing, they also adopt the method of wholesaling and retailing. (The groceries and supermarkets constituted 3.6 per cent of the total number of selected retail establishments.) These retail stores deal directly with processors and large producers. In this manner, the retailer obtains a much lower price through large-scale buying. Moreover, the practice has a rapid turnover of goods achieved by low prices and lesser service rendered to the customer.

A good example of self-employment in distribution of goods are the retailers of fresh fruits and vegetables who are mostly dependent on their sales for their source of income. The Philippines, being an agricultural country, abounds with fruit trees and backyard vegetable gardens. The farmer, as a wholesaler, brings his yield to the residence of his customers or to a nearby market, displays his produce and states his own price until the product is sold. The buyers in turn take them to different localities. The retailers referred here though, were those who sold their fruits and vegetables either in the public markets or in localities where a particular fruit or vegetable is better known. This type of retailers comprised 3,619 or 3.5 per cent of the 102,700 retail establishments.

The fewest type of retailers (423) were those engaged in retailing of processed sugar, cocoa, confectionery and miscellaneous food products. These retailers were most likely, those who have processed the products they were retailing and in all probability were subsidized by the government. It is possible that with appropriate encouragement this can be a factor that can help solve unemployment problems of the country. To a certain extent, these type of retailers might even escalate to big-scale manufacturing.

The large retail establishments (see table XXI.2) numbered 2,097 and the total employment was 44,250 for the year 1967. Again the general line stores or large sari-sari stores made up the bulk of the large retailing establishments and provided employment tot 8,982 persons. The figures for this kind of business included those employed in big supermarkets and groceries and, in some instances, in big stalls in the public markets.

Hardware, electrical and construction suppliers ran second to general line stores. They numbered 390 and had 7,785 people. The figures constituted 17.59 per cent of the total employment and 18.60 percent of the total number of large retail establishments. This kind of retailing business was slightly smaller in number by 3.10 percent to that of the general line stores, which means that Filipinos are utility-conscious.

While gasoline service stations and petroleum products retailers were large in number, they have relatively few employees. Of the 279 retailers, only 4,556 persons were employed which means for every establishment, an average employment of 16 persons. For groceries and other bottled beverage retailers, the 240 establishments reflected a higher percentage of employment (14.32 percent). This kind of retailing has an average of 26 workers for every establishment. This point out that the work requirements in groceries, other food and bottled beverage stores necessitate more workers.

**Table XXI.2 — NUMBER OF LARGE RETAIL ESTABLISHMENTS BY KIND OF BUSINESS AND TOTAL NUMBER OF EMPLOYMENT: 1967**

Kind of Business	Total Number of Establishment	Total Number of Employment
<b>Total</b>	<b>2,097</b>	<b>44,250</b>
General line stores	455	8,982
Groceries, other food and bottled beverages	240	6,338
Dry goods, apparel, footwear and accessories, retailing	136	2,691
Medical and educational supplies retailing	99	2,045
Furniture and home furnishing stores	221	5,020
Hardware, electrical and construction supplies	390	7,735
Motor vehicles and motorcycles, retail dealers	172	4,480
Gasoline service stations and petroleum products retailers	279	4,556
Retail trade, n.e.c.	105	2,353

Source: DCI, Bureau of the Census & Statistics, 1967 Economic Census.

## Wholesale

The function of wholesaling has a significant role in domestic trade. In the Philippines, the wholesalers come between the producers and retailers but not to the ultimate consumers. Where there is retailing involved in a wholesale set-up, this is done for a large consumer buyers such as restaurants and hotels and to industrial users. There is a special delivery service for this type of retailers. But, by and large, wholesaling is confined to sales in bulk or large-scale selling. The wholesalers shoulder also the burden of storing and transporting the commodities.

Table XXI.3 data are for large wholesale establishments. It reflected 1,923 for the total number of establishments with 63,780 persons employed. Of these number and employment, the wholesale trade group recorded the highest in both number of establishment and employment. This group does not specify any type of business that can be categorized under any of the wholesale business classifications.

Agricultural raw materials wholesaling, as the table reveals constitute the biggest group of wholesalers. Products of this type of business include palay, unmilled corn and other grains, sugar cane, rubber, coffee and cocoa, leaf tobacco, coconut and copra, livestock, hides and skins, logs, pulpwood and forest products, coconut oils and other crude vegetable oils, fats and meals. The facility for this type of business requires more of manual labor than machineries accounting for the big employment number. This is especially true in far-flung towns and provinces.

The group of wholesalers for lumber and construction materials was third in magnitude. Table XXI.3 reveals that there were 297 out of the total number of wholesale establishments. Goods sold by these wholesalers were of two groups: gravel and sand that were resold wholesale; and lumber, plywood, building, board and other wood and paper materials. The reported number of employment was 8,687.

Table XXI.3.—NUMBER OF LARGE WHOLESALE ESTABLISHMENTS, KIND OF BUSINESS AND NUMBER OF EMPLOYMENTS 1967

Kind of Business	Number of Establishments	Number of Employment
Total	1,923	63,780
Agricultural raw materials	343	9,000
Minerals, metals and industrial chemicals	74	6,621
Lumber and construction materials	297	8,687
Industrial, commercial and agricultural machinery and equipment and other motor vehicles	192	8,095
Hardware and electrical goods	278	8,974
Furniture and home furnishings	22	415
Dry goods, textiles and apparel		
wholesaling	104	3,462
Food beverages and tobacco wholesaling	246	8,656
Wholesale trade, n.e.c.	367	9,670

Source: 1967 Economic Census, Bureau of the Census and Statistics.

The hardware and electrical goods wholesale establishments numbered 278 with an employment of 8,974. The employment figure was slightly more than the lumber and construction materials group by 287. Percentagewise, this group constituted 14.07 per cent of the total employment of large wholesale establishments for 1967.

These three groups of wholesalers made up roughly 50 per cent of the total large wholesale establishments. Except for hardware and electrical goods, the commodities sold by the two larger group of wholesalers are representative products of an agricultural country. They dominate the movement of commodities in the market. Significantly, these are the groups in domestic trade who create the demand and supply cycle. Some wholesalers labelled as speculators hamper the flow of goods in the market, creating a scarcity of goods, thus leading to the increase in prices. In some instances, when or where the demand is slack, they saturate the market creating an artificial demand for a particular commodity, thus price tapers. However, this same group of wholesalers are also stabilizers of prices. They do their buying where there is little demand for a commodity and resell where the demand is relatively strong.

Food, beverage and tobacco wholesaling group was also big in number with a corresponding large employment. This type of business constituted 12.79 percent of the total number of large wholesale establishments. The employment was almost the same as that of lumber and construction material group. This kind of business include rice and other milled cereals, meat, poultry and dairy products; vegetables and fruits, fish and other sea food, sugar, edible cooking oil and desiccated coconut, cigars, cigarettes and tobacco products, and others. This is another type of business that necessitates more man labor than machineries except for products that are already packed in crates or in bulk.

### **Marketing of Agricultural Products**

The process of economic development of a country depends to a certain extent on how fast agriculture is developed. Our present rate of economic growth must be accelerated to provide a higher standard of living for the increasing population. Agricultural production should be increased per unit of farm input. Increased agricultural production increases foreign exchange earnings through expansion of agricultural exports and accelerates capital formation. It facilitates the creation of job opportunities in the industrial sector by providing an expanded market for consumer goods.

The seasonality of agricultural production causes frequent maladjustment between agricultural production and demand. Agricultural production is influenced by weather variations which makes it difficult to keep pace with changes in the price and demand for individual farm products. Since changes in prices and supply of individual farm commodities do not take parallel course, sharp fluctuations in the prices of agricultural products are unsuitable. Eliminating variations in agricultural prices means achieving and maintaining an equilibrium price for each product over time. That is, price would be constant if the quantities supplied and demanded are successfully kept in perfect balance.

Several government agencies have extension services that generally aid in more efficient marketing of agricultural commodities and institute farm price information, price controls and price stabilization programs.

The Bureau of Agricultural Economics, Department of Agriculture and Natural Resources is one such agency, as well as the newly created National Marketing Food Committee, Price Control Council, and the Greater Manila Terminal Food Market of the Development Bank of the Philippines.

### **Marketed fruits and vegetables**

Fruits and vegetables commonly grown in the country are found in nearly all markets in the Greater Manila Area. Eleven (11) fruits and twenty (20) vegetables of the most commonly consumed items were chosen for inclusion in this study. The fruits are bananas, papayas, citrus, pineapple, mango, watermelon, chico, lanzones, jackfruit, avocado and pomelo. The vegetables include representatives from such food groups as leafy and yellow vegetables, starchy fruits and tubers, bulbs, ginger, dry beans, and others. The last grouping is composed of green corn, chayote, eggplant, tomato, and some of the cucumber. The quantity inflow and the relative availability of most of these commodities are affected by the seasonal nature of agriculture production. In case of fruits, seasonality is exhibited by lanzones, chico, watermelon, citrus and related fruits; however fruits, like papaya, and banana are available throughout the year.

Due to the accreditability of the proposed terminal food market and the convenience and facilities offered, the agricultural products from Southern Luzon, which are intended for the Greater Manila area would probably perpetuate the terminal food market.

The terminal food market would handle and accommodate only a part of the total supply of fruits and vegetables entering the Greater Manila area since agricultural products coming from the Northern Provinces would tend to be marketed on the northern sector of the metropolitan area as shown below.

Table XII.4—SELECTED MAJOR FRUITS ENTERING GREATER MANILA:  
FY 1966 AND FY 1967

K i n d	All Major Provinces		Major Southern Provinces		
	Quantity (million kgs.)	Percent Distri- bution	Quantity (million kgs.)	Percent Distri- bution	Percent of total arrival in all major provinces
Total	98.66		82.44		
Banana	59.32	60.1	46.19	56.0	77.87
Papaya	18.64	18.9	18.64	22.6	100.00
Citrus	14.77	15.0	12.20	14.8	82.60
Pineapple	2.20	2.2	2.17	2.6	98.64
Mango	1.57	1.6	1.34	1.6	85.35
Watermelon	0.69	0.7	0.54	0.7	78.26
Chico	0.68	0.7	0.68	0.8	100.00
Lansones	0.29	0.3	0.26	0.3	89.66
Jackfruit	0.26	0.3	0.18	0.2	69.23
Avocado	0.20	0.2	0.20	0.3	100.00
Pomelo	0.04	a/	0.04	0.1	100.00

a/ Less than 0.1 percent.

Source: Bureau of Agricultural Economics, Philippine Agricultural Situation, 1968.

Table XII.5—SELECTED VEGETABLES AND ROOT CROPS ENTERING GREATER MANILA:  
FY 1966 AND FY 1967

K i n d	All Major Provinces		Major Southern Provinces		
	Quantity (million kgs.)	Percent Distri- bution	Quantity (million kgs.)	Percent Distri- bution	Percent of total arrivals in all major provinces
Total	57.26		20.59		
Cabbage	9.24	16.1	0.07	0.3	0.76
Green Corn	5.10	8.9	1.47	7.2	28.82
Pechay	4.47	7.8	2.57	12.5	57.49
Chayote	4.31	7.5	4.31	21.0	100.00
Eggplant	3.79	6.6	0.40	2.0	10.55
Camote	3.60	6.3	1.32	6.4	36.67
Tomato	3.28	5.7	0.74	3.6	22.56
Mongo	3.22	5.6	0.05	0.2	1.55
Potato	3.06	5.3	a/	b/	b/
Ampelaya	3.60	6.3	0.67	3.3	18.61
Ginger	2.28	4.0	2.28	11.1	100.00
Stringbeans	1.97	3.5	0.58	2.8	29.44
Upo	1.96	3.4	1.95	9.5	99.49
Gabi	1.57	2.8	1.57	7.7	100.00
Onion	1.43	2.5	0.10	0.5	6.99
Raddish	1.33	2.3	0.96	4.7	72.18
Garlic	1.26	2.2	1.14	5.6	90.48
Peanuts	0.90	1.6	0.06	0.3	6.67
Turnips	0.73	1.3	0.10	0.5	13.70
Patola	0.16	0.3	0.16	0.8	100.00

a/ Less than 0.01 million kilograms.

b/ Less than 0.1 percent.

Source: Bureau of Agricultural Economics, Philippine Agricultural Situation, 1968.

The frequency of procurement of fruits and vegetables from market centers outside the greater Manila area was followed by procurement directly from farms. As in the former mode of acquisition disposal of farm procured products was largely to wholesalers, particularly, in the fruit groups.

Banana, citrus and papaya rated highest in the sales to wholesalers. Disposal of fruits produced was largely through mail sales by the truckers. Banana, papaya and mango had the highest sales in the list of fruits for this group which are sold to retailers.

The highest frequency were reported for raddish, chayote, and pechay, of the vegetables retailed by the truckers themselves. The vegetables are grouped into five categories,, namely; rootcrops, dried beans, leafy and yellow vegetables, bulbs, and ginger, and other vegetables. Rootcrops and tubers include camote, gabi, and Irish potato.

An additional advantage in the marketing of agricultural products are the following:

1. The Greater Manila Terminal Food Market (GMTFM) is designed to meet and serve the needs of producers, as well as wholesaler, who transact business at the terminal market. Its facilities should be opened to commodity trade from all origins.
2. Price stabilization requires control of supply in commercial channels. In order to attain this objective, the terminal market must be able to gain control by engaging in buying and selling. The terminal markets may have set up buying stations within producing centers where farmers can directly sell their products.

### Storage and Warehousing

Inadequate storage facilities is one of the causes of heavy losses to farmers in the Philippines resulting in serious wastage of foodstuffs and increase prices to consumers. Moreover, the storage and other means of preserving crops are not available where needed and on reasonable terms resulting in exceptionally low prices at harvest time and high prices later. Thus, it is apparent that storage in warehouses functions in several ways.

First, this regulates supply and demand; that is, surplus products can be stored and may not be sold while demand is low. Only sufficient amount may be withdrawn to meet the actual needs while the rest is deposited and held over for the rest of the year. Secondly, this prevents unusual price fluctuations because the surplus commodities can be kept away from the market by depositing them in the warehouses; and lastly, receipts of stored goods in warehouses can be utilized as credit instruments.

The storage and warehousing business was legalized with the passage of R.A. 3893 and its main aim is for the storage of rice. Later this act was amended under R.A. 247 to include all commodities that may be stored and be traded or dealt with openly and legally. This latter act further stipulated fees for the putting up of warehouses and receiving goods for storage. The fee is fifty pesos (P50.00) for the first one thousand square meters of enclosure or cubic meters of storage space, after which two and a half centavos is charged for every additional square meter or cubic meter.

For grain storage, the license fee depends on the milling capacity at a specific length of time. That is, if the milling capacity does not exceed fifty (50) sacks of palay in twelve hours, the license fee is five pesos (P5.00) while an additional increase in milling capacity of ten (10) sacks, requires a corresponding increase of five pesos (P5.00) in the licenses fee. For milling capacity above 200 sacks, the fee charged is one hundred pesos (P100.00). The license fees enumerated are understandably low because the bill was passed twenty years ago.

The data presented is limited to warehouses registered with the Bureau of Commerce and the list of FACOMA warehouses and rice mills, furnished by the Agricultural Credit Administration. Registered warehouses numbered 1,107 as of December 1971. The nature of products stored in these registered warehouses varies, while the FACOMA warehouses and rice mills are exclusively for grain products. As of June 1971, there were 188 FACOMA warehouses and 126 rice mills.

**Table XXI.6—FARMER COOPERATIVES WITH WAREHOUSES AND RICE MILLS**  
June 30, 1971

Province	Warehouses		Rice Mills	
	Number	Capacity (cavans)	Number	Capacity (cavans)
<b>Total</b>	<b>188</b>	<b>5,081,800</b>	<b>126</b>	<b>20,900 - 25,370</b>
Agusan	2	50,000	-	-
Albay	2	35,600	2	210 - 250
Batangas	1	20,000	-	-
Bohol	1	20,000	-	-
Bukidnon	1	10,000	-	-
Bulacan	15	1,002 - 5,000	9	1,770 - 2,090
Cagayan	16	420,000	8	1,220 - 1,500
Camarines Sur	9	175,000	6	600 - 750
Capi	5	97,800	4	630 - 780
Cotabato	8	205,000	6	820 - 1,010
Davao	3	45,000	-	-
Ilocos Sur	1	20,000	-	-
Iloilo	15	319,800	12	2,240 - 2,730
Isabela	14	510,000	12	2,700 - 3,200
Laguna	5	117,000	5	990 - 1,130
La Union	1	20,000	-	-
Leyte	6	75,000	4	520 - 600
Misamis Oriental	1	10,000	-	-
Mountain Province	1	40,000	1	200 - 220
Negros Occidental	7	149,800	2	430 - 480
Nueva Ecija	23	656,000	18	2,920 - 3,670
Nueva Viscaya	6	125,000	6	820 - 1,000
Occidental Mindoro	1	17,800	1	80 - 100
Pampanga	5	93,000	4	750 - 930
Pangasinan	10	335,000	7	1,180 - 1,460
Rizal	10	158,400	6	840 - 1,020
Sorsogon	2	27,800	-	-
Surigao	3	37,000	2	160 - 200
Tarlac	8	190,000	7	1,180 - 1,440
Zamboales	1	100,000	-	-
Zamboanga del Norte	-	-	1	80 - 100
Zamboanga del Sur	5	90,000	5	400 - 500

Sources: Agricultural Credit Administration.

Of the 1,117 registered warehouses, nine (9) were cold storage facilities. These are mostly located in the City of Manila and its suburbs. The large cold storage facilities are used mostly by wholesalers for stocks in connection with export and import shipments. One reason for the small number of cold storage facilities in the country is that such facilities are highly specialized and extremely expensive to construct and maintain. The scarcity of cold storage in the Philippines, maybe attributed also to the fact that perishable commodities are marketed only on small scale so that the utility-scope for this type of facility is limited to small scale producers, distributors and those in public markets. Most Philippine fruits and vegetables are also of the type or kinds that do not adapt to cold storage and consumers are used to purchasing unrefrigerated fruits and vegetables.

Except for a few bonded warehouses where general merchandise, hardware and appliances are stored, grain storage is the main purpose of existing warehouses located in the provinces. However, in some instances, agricultural produce representatives of a province is the major commodity stores. Typical examples are abaca fiber warehouses in Davao and Albay provinces, sugar mills and warehouses in Iloilo and Negros Occidental, copra in Quezon province and tobacco warehouses at Ilocos Sur.

As previously mentioned only a few FACOMA warehouses are registered, the rest are either ACA supervised or operated. The 188 FACOMA warehouses have a capacity of 5,081,800 cavans or an average of 27,031 cavans per warehouse while the 126 rice mills have a milling capacity of from 20,900 to 25,370 cavans. Not all the provinces have FACOMA warehouses and rice mills but it is worth mentioning here that they exist mostly in Isabela, Cagayan and Nueva Ecija for the Luzon area and in Iloilo for the Visayas as shown below.

**Table XXI.7 — NUMBER OF REGISTERED BONDED WAREHOUSES BY PROVINCE**  
1970

Total Philippines		1,117	
1. Aklan	3	24. La Union	3
2. Albay	15	25. Laguna	19
3. Antique	2	26. Lanao del Sur	2
4. Bataan	16	27. Leyte	5
5. Batangas	6	28. Manila	55
6. Bukidnon	8	29. Misamis Occidental	4
7. Bulacan	148	30. Misamis Oriental	7
8. Cagayan	16	31. Negros Occidental	6
9. Camarines Norte	3	32. Northern Samar	2
10. Camarines Sur	24	33. Nueva Ecija	242
11. Capiz	1	34. Nueva Vizcaya	13
12. Catanduanes	1	35. Occidental Mindoro	15
13. Cavite	9	36. Oriental Mindoro	8
14. Cebu	14	37. Pampanga	70
15. Cotabato	135	38. Pangasinan	45
16. Davao del Norte	1	39. Quezon	14
17. Davao del Sur	10	40. Rizal	42
18. Eastern Samar	1	41. Sorsogon	7
19. Ilocos Norte	6	42. South Cotabato	2
20. Ilocos Sur	2	43. Tarlac	56
21. Iloilo	15	44. Zambales	3
22. Isabela	39	45. Zamboanga del Norte	4
23. Kalinga-Apayao	1	46. Zamboanga del Sur	17

Source: Bureau of Commerce

## COOPERATIVE ORGANIZATION

Cooperative organizations are of two kinds, the agricultural and non-agricultural. These cooperatives are given legal entity to carry on business as a corporate body although the activities are supervised by two government agencies. The Cooperative Administration Office supervises the non-agricultural cooperatives and the Agricultural Credit Administration, the agricultural or farmers cooperatives.

The functions of the CAO center on giving assistance and encouragement in the organization of cooperatives. Non-agricultural cooperatives are all on self-help basis; i.e., while CAO helps in the organization and supervision, it provides no financial assistance.

The CAO supervises two different types of cooperatives, the primary and the secondary. The primary types are geared more for the development of enterprises on a cooperative basis while secondary types are established primarily to coordinate and facilitate the activities of cooperatives affiliated with them.



Primary types of cooperatives are: credit union, where shares and deposits of members may be utilized as capital for production and may be invested in the form of loans given on easy installments; consumers' cooperative whose members pool together a part of their earnings to purchase quality goods at low cost for the members; industrial cooperative which is formed by skilled workers for the purpose of increasing production and providing jobs for the unemployed members; and service cooperative which is organized to meet the needs of a group of people in a locality for electrification, transportation, hospitals, and others.

Table XII.8—NUMBER OF REGISTERED COOPERATIVES BY PROVINCE AND BY TYPE: DECEMBER OF 1968 AND 1971

Province	Total		Credit Union		Consumer		Industrial		Other types		Federation	
	1968	1971	1968	1971	1968	1971	1968	1971	1968	1971	1968	1971
<b>Total</b>	<b>4,007</b>	<b>4,673</b>	<b>1,931</b>	<b>2,434</b>	<b>1,916</b>	<b>2,046</b>	<b>72</b>	<b>87</b>	<b>81</b>	<b>27</b>	<b>-</b>	<b>2</b>
Abra	29	38	9	15	19	22	-	-	1	1	-	-
Agusan del Norte	22	28	17	22	5	6	-	-	-	-	-	-
Agusan del Sur	-	3	-	3	-	-	-	-	-	-	-	-
Aklan	15	19	11	15	4	4	-	-	-	-	-	-
Albay	46	54	27	32	18	20	1	2	-	-	-	-
Antique	23	24	21	21	2	2	-	-	-	-	-	1
Aurora Sub-province	-	9	-	4	-	5	-	-	-	-	-	-
Bataan	36	37	8	9	28	28	-	-	-	-	-	-
Batanes	1	1	1	1	-	-	-	-	-	-	-	-
Batangas	161	174	54	63	102	106	2	2	3	3	-	-
Benguet	56	68	36	48	18	18	2	2	-	-	-	-
Bohol	24	29	17	21	6	7	-	-	1	1	-	-
Bukidnon	14	18	10	14	4	4	-	-	-	-	-	-
Bulacan	131	146	47	58	76	80	5	5	3	3	-	-
Capayan	33	40	12	17	19	20	-	-	2	3	-	-
Calococan City	-	56	-	21	-	31	-	3	-	1	-	-
Camarines Norte	27	29	13	14	14	14	-	-	1	2	-	-
Camarines Sur	81	97	45	53	35	42	-	-	1	2	-	-
Camiguin	-	3	-	2	-	1	-	-	-	-	-	-
Capiz	31	33	14	16	16	16	-	-	1	1	-	-
Catanduanes	22	25	8	10	14	15	-	-	-	-	-	-
Cavite	71	90	25	40	42	46	-	-	4	4	-	-
Cebu	85	95	52	59	31	32	2	2	-	1	-	1
Cotabato	40	54	25	36	13	14	-	-	2	3	-	1
Davao del Norte	13	24	10	20	3	4	-	-	-	-	-	-
Davao del Sur	44	60	35	50	8	8	-	-	1	2	-	-
Davao Oriental	9	19	6	13	3	6	-	-	-	-	-	-
Eastern Samar	13	16	11	14	2	2	-	-	-	-	-	-
Ifugao	2	4	1	3	1	1	-	-	-	-	-	-
Ilocos Norte	58	63	14	17	39	40	2	2	3	4	-	-
Ilocos Sur	60	66	20	24	37	35	-	-	3	3	-	-
Iloilo	99	116	57	72	36	38	4	4	2	2	-	-
Isabela	25	29	9	13	15	15	-	-	1	1	-	-
Kalinga-Apayao	-	-	-	-	-	-	-	-	-	-	-	-
La Union	94	105	42	51	51	53	-	-	1	1	-	-
Laguna	170	181	76	85	89	89	3	3	2	2	-	-
Lanao del Norte	22	31	12	20	9	10	-	-	1	1	-	-
Lanao del Sur	18	20	4	6	9	9	4	4	1	1	-	-
Leyte	63	71	51	57	9	11	1	1	2	2	-	-
Manila	701	747	291	324	362	394	8	8	20	21	-	-
Marinduque	11	16	3	7	8	9	-	-	-	-	-	-
Masbate	19	22	14	17	5	5	-	-	-	-	-	-
Misamis Occidental	25	34	23	29	2	3	-	-	-	1	-	1
Misamis Oriental	31	49	22	36	8	10	-	1	1	1	-	1
Mountain Province	8	11	6	8	2	2	-	-	-	1	-	-
Negros Occidental	84	99	60	70	20	24	3	3	1	2	-	-
Negros Oriental	26	41	17	31	8	9	1	1	-	-	-	-
Northern Samar	11	14	10	12	1	2	-	-	-	-	-	-
Nueva Ecija	148	160	76	83	69	71	2	2	1	3	-	1
Nueva Viscaya	20	21	8	8	12	13	-	-	-	-	-	-
Occidental Mindoro	6	10	2	5	2	4	1	-	1	1	-	-
Oriental Mindoro	20	27	10	17	10	10	-	-	-	-	-	-
Palawan	8	12	3	6	5	6	-	-	-	-	-	-
Pampanga	92	106	32	43	57	59	-	1	3	3	-	-
Pangasinan	160	178	66	81	92	94	-	-	2	2	-	1
Pasay City	-	49	-	21	-	25	-	2	-	1	-	-
Quezon	103	106	36	41	65	64	-	-	2	1	-	-
Quezon City	143	178	87	109	49	60	5	5	2	3	-	1
Rizal	445	446	197	238	210	171	29	27	9	10	-	-
Romblon	14	15	5	6	8	8	-	-	1	1	-	-
Sorsogon	55	62	29	32	24	26	2	2	-	-	-	1
South Cotabato	28	35	11	20	8	10	-	-	2	2	-	-
Southern Leyte	16	20	14	15	2	5	-	-	-	-	-	-
Sulu	5	7	3	5	2	2	-	-	-	-	-	-
Surigao del Norte	14	21	9	14	4	6	-	-	1	1	-	-
Surigao del Sur	9	14	6	10	3	4	-	-	-	-	-	-
Tarlac	86	89	43	46	43	43	-	-	-	-	-	-
Western Samar	7	11	4	7	3	4	-	-	-	-	-	-
Zamboanga	25	32	9	12	15	19	1	1	-	-	-	-
Zamboanga del Norte	7	12	4	9	2	2	1	1	-	-	-	-
Zamboanga del Sur	42	57	24	33	18	24	-	-	-	-	-	-

Sources: Cooperative Administration Office, Annual Report, 1971.

The preceding table shows the total number of registered cooperatives as of December 30, 1968 and 1971. It revealed 4,007 registered cooperatives for the calendar year 1968 and after a span of three years, the number increased to 4,673 or a growth of 16.62 percent. The increase averaged approximately 5.54 percent annually.

Credit unions for 1968 numbering 1,931 and 2,434 as of December, 1971 appear to be the most popular among the primary type of cooperatives. This is understandable in the context of low salaried employees who aspire to acquire something better but who do not have the means.

The credit union serves as the instrument to augment the desire. As of December 1968, Manila and Rizal province spearheaded the list of credit unions with 291 and 197, respectively. They maintained the lead in 1971 as shown by the 324 and 238 credit unions recorded for Manila and Rizal, respectively.

Another much appreciated cooperative is the consumers' cooperative. The total cooperative registered of this type in December 1971 was 2,046. Low-salaried employees in urban areas and farmers with meager means in rural areas must have found this type of cooperative profitable. The cooperatives purchase products and goods in wholesale prices for the members and still stand to benefit after a time through rebates.

The impact of industrial and service cooperatives are not yet fully noticeable as reflected by their small number. However, the CAO has set the pace in the promotion and organization of these types of cooperatives, through frequent seminars and educational programs.

Among the secondary cooperatives existing as of 1968 are the Philippine National Cooperative Bank, Inc. (PNCB), Filipino Cooperative Wholesale Society Inc. (FCWS), and Service Federation of Credit Unions. The PNCB consisted of affiliated cooperatives with some preferred share holders and government subscribed shares. The FCWS was organized to answer the long felt need for an apex organization which will coordinate the activities of the different primary types of operating cooperatives.

The Agricultural Credit Administration is not only engaged in providing credit but also in promoting the organization of cooperatives among the farmers. Through cooperatives, the farmers can free themselves from the domination of middlemen in the marketing of their crops as well as in the purchase of inputs they need in farming. More than this economic gain, cooperative organization can help the farmers stand on their own as a private economic enterprise and with the cooperative unity, enjoy the advantages of large scale operations.

The ACA in collaboration with the Agricultural Productivity Commission affiliated nineteen (19) new cooperatives which had an aggregate membership of 1,807 farmers whose activities cover palay, vegetable, sugar, coffee and cacao, poultry and livestock, garlic and onions and a paid-up capital of ₱308,874.95 (as of June 30, 1971). Their membership covered 47 cities and towns, 257 barrios and 6 provinces. (Table XXI.9)

Table XXI.9.—SUMMARY DATA ON COOPERATIVES AFFILIATED WITH AGRICULTURAL CREDIT ADMINISTRATION BY TYPE AND/OR BY SERVICES HANDLED: FY 1970 AND FY 1971

Group/Services Handled	Number	Capitalization		Total Memberships	Coverage	
		Authorized	Paid-up		Towns	Barrios
<b>Total</b>	<b>19</b>	<b>₱ 308,445,000</b>	<b>₱ 308,874.95</b>	<b>1,807</b>	<b>47</b>	<b>257</b>
Palay	11	2,445,000	118,999.95	1,149	16	198
Sugar	3	1,600,000	67,820.00	216	22	6 provinces
Poultry and Livestock	1	100,000	5,000.00	15	4	
Vegetables	1	100,000	5,000.00	151	5	12
Onions and Garlic	1	100,000	5,160.00	200		43
Coffee	1	100,000	6,520.00	96		4
Supply	1	300,000,000	100,375.00	20	National	

Source: Agricultural Credit Administration, 1970-1971 Annual Report.

Table XII.10—OPERATIONAL STATUS, MEMBERSHIP AND CAPITALIZATION OF ACTIVE AND INACTIVE FARMERS' COOPERATIVES BY CROPS/SERVICES HANDLED AS OF JUNE 30, 1971

Crops/Services Handled	Operational Status			Membership			Capitalization						Total Capitalization	
	Active	In-active	Total	Active	In-active	Total	Active Cooperatives			Inactive Cooperatives			Authorized	Paid-up
							Authorized	Paid-up	Total	Authorized	Paid-up	Total		
Total	223	236	567	116,587	253,417	370,004	P 378,570.225	P 226,313,612.22	P 26,055,725	P 1,757,562.52	P 404,625,390	P 26,071,174.8		
Pulley	176	214	390	71,654	183,552	255,206	16,930,225	4,886,897.42	11,424,725	1,809,989.72	28,354,950	6,686,847.1		
Soybeans	41	97	138	10,021	47,789	57,810	4,575,000	1,187,773.88	6,746,000	1,023,997.95	11,321,000	2,511,371.8		
Corn	6	44	50	1,048	11,356	12,404	810,000	206,228.71	2,195,000	145,441.36	3,005,000	351,669.8		
Poultry and Livestock	21	13	34	1,702	2,352	4,054	4,710,000	703,772.00	2,467,500	396,977.22	7,177,500	1,100,749.2		
Sugar	28	5	33	28,461	1,187	29,648	48,640,000	14,376,510.48	600,000	126,745.00	49,240,000	14,503,255.4		
Fiber	1	2	3	275	1,552	1,827	200,000	64,985.14	100,000	9,283.25	300,000	74,268.3		
Fruits and vegetables	5	6	11	641	1,932	2,573	450,000	43,978.80	350,000	54,824.75	800,000	98,803.5		
Fish	5	6	11	148	730	878	605,000	30,930.00	712,500	34,910.55	1,317,500	65,840.5		
Grains and pulses	3	1	4	1,325	801	2,126	1,300,000	347,140.00	50,000	8,510.00	1,350,000	355,650.0		
Coffee and Peanuts	2	4	6	77	2,099	2,176	200,000	12,443.00	250,000	84,383.01	450,000	96,826.0		
Processing	2	2	4	77	67	144	300,025,000	145,997.36	1,160,000	62,900.00	300,025,000	145,997.3		
Supply	2	2	4	1,078	-	1,078	125,000	7,395.48	-	-	125,000	7,395.4		
Irrigation	3	-	3	157	-	157	-	-	-	-	-	-		

Source: Agricultural Credit Administration, 1970-1971 Annual Report.

The preceding table provides the data concerning the latest affiliated cooperatives showing the crops and services handled. These newly affiliated associations raised the number of farmers cooperatives duly registered with the Security and Exchange Commission to 687. The next table shows the overall data on the status of membership and capitalization as of June 30, 1971.

The government's role in trade is primarily the provision of the necessary climate for free competition. The government participation has led to the establishment of agencies to regulate and control prices as well as other forms of unfair trade practices. Laws have been enacted to safeguard the welfare of the industries and the consumers of the products of these industries.

Among the various agencies that implement these activities is the Bureau of Commerce which enforces the Price Tag Law (Act 3740). Consumers and reputable business establishments are protected by this legislation against fraudulent or misleading advertisement, mislabelling or misbranding of any product, stock, bonds, etc. Another law that goes hand in hand with the Price Tag Law is the Price Control Law (R.A. 6124). The law provides for the organization of a Price Control Council to peg prices of prime commodities at reasonable levels.

When there is a government price fixing, adverse effects on the quality of the products or commodities are noticeable. This is checked by the Fair Trade Board which has the broader power and authority to prosecute cases violated under the Price Tag Law.

The Foods and Drugs Administration which implements the Foods and Drugs Act protects the health of the public by prescribing certain products offered for sale to conform with the requirements set out by law. Inspection and certification are compulsory, particularly for drugs and medicines.

The Bureau of Standards is the government agency that inspects both locally manufactured and imported goods to prevent the production and importation of substandard kinds. The act setting standard or uniform units of volume or weights in rice and palay in trading is Commonwealth Act No. 617 which has the Bureau of Internal Revenue as its police. This act has fairly helped buyers and farmers as well.

R.A. 3815 penalizes frauds in commerce and industry (Re-Articles 186-189 of the Revised Penal Code). It penalizes violations on monopolies and combinations in restraint of trade or prevents by artificial means free competition in the market; the importation and selling of goods made of silver, gold or other precious metals which fail to indicate the actual fineness or quality and substitutions; and the alteration of trade-marks and trade names.

The Business Names Law (R.A. 3883) requires a business firm or trader to register with the Bureau of Commerce his true name and to "keep a sign conspicuously exhibited in plain view in or at the place where his business is conducted". Partnerships and corporations should be registered with the Securities and Exchange Commission. This law prevents misrepresentations in trading and establishing contract works.

For landless and poor farmers, the government has the Agricultural Credit Administration to help them. The focal concern in the ACA policies and program is to provide credit without collateral to these farmers. The credit granted helps to tide them over from the effects of chronic indebtedness to money lenders and adverse prices, particularly during harvest period.

The Philippine retail trade is widely controlled by alien interest. This was, however, alleviated with the passage of the Retail Trade Nationalization Act aimed at giving assistance to Filipino retailers in their struggle to gain control of the domestic trade from the aliens by limiting the business to Filipinos only.

## SERVICES

Service trade establishments have noticeably increased, such that the Bureau of the Census and Statistics, realizing the importance of the field of services as an economic activity, undertook again its inclusion in the 1967 Census to gauge how this particular economic field affects the national economy. The 1961 Economic Census on services was an initial undertaking. In the 1948 Census of Population, however, income data on business, personal and recreation services were collected and included in some reports. The service establishments referred to here include business, recreational and personal and exclude domestic, government, community, medical health, educational and other services, although all these should be included.

For census purposes a service establishment is a licensed unit at a fixed location under one management or control, organized primarily to render business, recreational or personal services. Business services presented here are of two categories; namely, engineering, architectural and technical services and legal services.

### Business Services

In 1967 the engineering, architecture and technical service category numbered 429. This group renders service principally in the form of advice or by drawing up plans for blue print of future constructions of either buildings or houses. On the other hand, legal services could either be legal assistance in court, or to some extent as arbiter for labor cases. For the numerous work the legal service covers, the total establishments were 2,049. These constituted 5.04 percent of the 1967 total service establishments.

### Recreational Services

Recreational services are rendered for amusement purposes and includes such services as moviehouses, nightclubs and bars, brassbands and orchestras, cabarets, bowling alleys, billiards and poolrooms, fun centers, tourist vacation resorts and cockpits. All these are typically found in any town or city in the Philippines.

In 1967, there were 7,631 such establishments. Cockpit establishments topped the list with 2,460. Billiard and poolrooms came next with 1,824 establishments. These two forms of recreational services are games of chance and they comprised 56.14 percent of this category. Cockfighting is a national past time in the Philippines on Sundays and on holidays. Cocks are pitted against each other and bets are placed on them. While billiard and pool games are purely recreational in other countries, the Filipinos can not resist placing bets on players resulting in the contest in the skill of the players. The predominance of these establishments points out the fact that Filipinos are fond of gambling.

Moviehouses and brassbands and orchestras were next in the group. They numbered 903 and 825, respectively, and percentagewise reflected 22.64 percent for both. The abundance of moviehouses and brassbands gives an insight into the fun loving character of the Filipinos. Brassbands in the Philippines is a must almost on all occasions during feast days, and holidays and more so, in funerals. This perhaps is one of the Spanish vestiges left in the country.

Tourist and vacation resorts numbered 525 for 1967. The night clubs and bars were 467 in 1967. Cabarets, the cheaper version of nightclubs in the Philippines, were small in number.

### Personal Services

For purposes of the 1967 survey, personal service establishments are those that provide service to a person or his apparel, excluding domestic service. Included here are barber shops, beauty shops, funeral parlors, hotels, laundry cleaners, portrait and commercial studios, restaurants and meal service places. The number of personal service establishment comprised 79.42 percent of the total service establishments as of 1967. This is worth noting in gaining an insight to the Filipino way of life. Tradewise, one can also determine the commodities that can be bought

and sold for immediate consumption. This is true because of the big number of restaurants and meal-serving places in 1967 (13,754) as shown in Table XXI.11. The barbecue, refreshments stands and counters were second in the list of personal services with 9,525 establishments. These two groups make up 59.68 percent of the total personal service establishments. This is understandable considering that they furnish the people with a basic necessity in life — food. With the increases in population, more capital is expected to be invested along this line which would serve the two-fold purpose of sustaining the population increase and realizing profit from the business venture thus stimulating more investments.

Statistics show that there were 6,446 barber shops and 4,858 beauty parlors in the country in 1967. These two types of shops represented 28.98 percent of the total personal service establishments. Together with the meal serving places, they claim a sizeable share of 70.41 percent of the total 49,116 establishments. Establishments offering portrait and other photographic service make up 4.11 percent of the personal service establishments. Hotels and other lodging places are relatively few (1,388), compared to other countries because majority of the Filipinos belong to the low-income group, and do not travel so much or if ever they do, they prefer to stay with relatives or friends. Laundries and laundry services are also few in number (756) and these are mostly found in urban places. One reason that can be advanced is that Filipinos still stick to the conventional way of washing because of the availability of domestic help.

Using these data on service establishments as statistical measures, it could be surmised that the service establishments reflect the changes in the Filipino way of life. The process of urbanization has begun to complicate the lives of the Filipinos, not only in terms of wants and desires, but also in their day to day activities. These establishments have in one way or another made life for the people convenient.

Table XXI.11.—NUMBER OF SELECTED SERVICE TRADE ESTABLISHMENTS:  
1963 AND 1967

Kind of Business	Number of Establishments	
	1963	1967
<b>Total</b>	<b>11,221</b>	<b>49,116</b>
<b>Business services</b>		<b>2,478<sup>a/</sup></b>
Engineering, architectural and other technical service	-	429
Legal services	-	2,049
<b>Recreational services</b>	<b>886</b>	<b>7,631</b>
Moviehouses	124	903
Night clubs and bars	361	467 <sup>a/</sup>
Brassbands and orchestra	4	825
Cabarets	5	242
Bowling alleys	313	385
Billiards and poolrooms	67	1,824
Tourists and vacation resorts	1	525
Cockpits	11	2,460
<b>Personal services</b>	<b>10,335</b>	<b>39,007</b>
Restaurants and meal serving places	3,094	13,754 <sup>a/</sup>
Barbecue, refreshment stands and counter	3,985	9,525
Hotels and other lodging places	251	1,388
Laundries and laundry services	532	756
Barbershops	1,007	6,446
Beauty parlors	1,067	4,858 <sup>a/</sup>
Portrait and other photographic service	360	1,604 <sup>a/</sup>
Funerals and undertakes	39	676

<sup>a/</sup> 1967 Economic Census

Sources: 1963 and 1968 Facts and Figures and 1967 Economic Census, Bureau of the Census and Statistics.

## PRICES

Price is defined as the measure of the value of money. Fluctuations in price levels subsequently result in changes in the value of money or the purchasing power of the peso. These changes in the prices of goods and services are measured by price indices. Prices as economic indicators are used extensively in labor management contracts to adjust wages; in economic research studies to show its relation to money supply; and in the adjustment of pensions and retirement payments.

In the eleven-year period from 1961-1971 price levels of all commodities in the country had steadily risen, specifically the prices of food and imported commodities. Total supply of commodities include locally produced commodities for home consumption, as well as for exports and imported commodities. The sharp increases in prices are evident in the behavior of prices at wholesale, retail and consumer levels in Manila and in regions outside Manila.

Prices reached unprecedented levels during 1970 and 1971. The mark-up in prices was largely due to climatic factors and other natural calamities; from inefficient distribution of goods; the institution of the floating rate exchange system; and from the price decisions of local producers and middlemen.

### Wholesale Price

Wholesale price is the price of a commodity in bulk as transacted between the wholesaler, who may be a manufacturer or a producer, and the retailer or any other purchaser in bulk. A general measure of yearly wholesale prices of domestic and imported commodities is the wholesale price index.

However, there is no national wholesale price index for the Philippines because the surveys of the market show that wholesale prices hardly exist in the provinces. The prevalence of the Chinese Chamber of Commerce in the provinces and the transportation network in Luzon and Visayas make the wholesale prices in Manila the deciding factor in determining the price indices in the provinces. Prices of export products are determined using the prices obtained in Manila, despite the fact that export products are located at various ports outside Manila.

Wholesale prices of all commodities rose steadily from 1961-1971, most specifically during the last two years 1970 and 1971, when the peso was devaluated in early 1970, the effect of which was felt during the ensuing months.

The index of wholesale prices in Manila as shown in Table XXI.12 moved up by 66.72 percent from 1961-1970. Within the short period from February to December 1970, the index climbed up by 19.03 percent, almost matching the 21.06 percent increase registered from 1963 to 1969.

All the component indices of general wholesale prices were characterized by marked increases in 1970. Food price index rose by 16.83 percent from 178.3 percent in 1969 to 208.3 percent in 1970. By February 1971 prices of food almost doubled from the initial index of 119.5 percent.

The exporters profited most from the price-spiralling effect of the floating exchange rate. Price indices of export products soared up to 304.8 percent in 1970 from 233.3 percent in 1969 or a percentage increase of 30.65. However, prices of export products behaved in an erratic manner during the first few months of 1971 as presented in Table XXI.13.

The floating rate exchange system was decreed necessary by the Central Bank of the Philippines to ease the critical shortage of foreign exchange reserve in the country by encouraging exports and discouraging imports. It is a fact that the country is largely dependent on imports for most of its needs and this inevitably increased the prices, specially those of imported products. The price index of imported items increased by 34.08 percent from 205.4 in 1969 to 275.4 in 1970, a percentage increase unsurpassed in the whole eleven year period under review, while the percentage increase of all imported commodities was 23.96 percent for the same period.

Table XXI.12—SELECTED WHOLESALE PRICE INDEX FOR MANILA: 1961 TO 1971  
(1955 = 100)

Period	All items	Food	Beverages and tobacco	Crude materials inedible	Mineral fuels	Animals and veg. oils and fats	Chemicals	Manufactured goods	Mach. & Trans. equipment	Miscellaneous manufactured articles, etc.
1961	123.2	119.5	111.3	135.2	127.5	138.1	115.4	126.6	163.5	116.2
1962	129.4	122.7	113.0	151.5	135.4	163.7	131.4	130.9	174.7	123.4
1963	142.0	139.0	118.2	168.9	140.5	183.0	138.5	135.5	189.2	130.6
1964	148.6	148.3	120.1	179.0	140.5	197.2	141.0	140.0	188.5	131.7
1965	151.9	150.3	123.0	192.3	142.5	230.0	142.4	143.4	188.7	128.5
1966	158.5	165.8	124.0	181.3	146.9	201.3	141.2	146.3	190.0	131.0
1967	165.9	174.5	133.5	197.1	147.6	225.3	143.8	146.7	193.0	132.2
1968	170.7	175.9	138.2	222.8	147.6	267.0	147.0	147.3	196.0	132.6
1969	171.9	178.5	138.8	218.9	149.2	234.4	147.8	151.2	202.1	133.5
1970	205.4	208.3	169.2	274.9	174.7	247.9	183.9	192.3	248.8	151.4
January	184.7	192.3	141.1	244.9	149.6	280.2	153.5	166.7	207.0	136.0
February	187.1	194.3	141.3	246.3	149.6	294.4	154.8	171.5	213.0	137.5
March	198.4	197.9	142.8	283.3	153.3	278.9	173.9	173.9	188.4	149.0
April	204.3	202.5	246.2	287.4	182.6	290.8	187.0	192.6	238.2	151.0
May	205.5	205.0	146.2	279.6	182.6	351.2	188.3	202.1	238.2	153.2
June	206.9	206.0	146.6	281.9	184.2	349.7	190.4	201.4	254.1	153.6
July	206.7	206.5	146.7	278.2	184.4	347.6	190.7	196.7	265.3	154.0
August	206.0	208.3	146.7	266.6	184.4	325.5	191.9	195.4	265.4	155.5
September	208.2	210.5	157.9	267.4	184.4	331.5	191.9	195.8	265.5	155.5
October	213.8	219.9	157.9	272.3	184.4	347.4	194.4	198.1	265.5	156.2
November	220.6	226.3	258.7	297.0	184.4	395.7	194.4	198.6	273.4	156.0
December	222.7	230.6	258.7	294.2	184.4	381.6	195.6	200.1	274.9	159.6
1971 January	226.9	236.9	158.8	298.2	193.7	387.9	196.3	202.4	275.7	159.7
February	227.1	239.3	158.5	298.2	200.8	355.7	198.6	202.3	275.7	160.7
March	228.9	243.4	158.5	287.6	200.8	335.6	206.1	202.3	276.6	160.3
April	232.1	247.3	158.5	299.4	200.8	325.5	206.2	202.9	277.2	160.8
May	230.9	246.8	157.3	292.1	200.8	305.3	206.2	203.6	277.2	160.8
June	233.1	249.5	157.3	295.2	200.8	316.5	206.9	203.7	287.8	160.9
January to June average	229.8	243.9	158.1	293.6	199.6	337.8	203.4	202.9	278.4	160.6

Source: Central Bank of the Philippines.

Table XXI.13—WHOLESALE PRICE INDICES IN MANILA: 1961 TO 1971  
(1955 = 100)

Period	Imports		Domestic		Home consumption	Exports
	All items	Food	All items	Food		
1961	144.5	149.2	119.7	117.7	121.7	138.1
1962	158.2	171.2	124.7	119.6	125.6	167.1
1963	167.8	180.6	137.7	136.4	136.0	200.0
1964	169.4	185.6	145.2	146.0	143.9	194.2
1965	170.2	190.4	149.0	147.8	147.1	199.6
1966	172.3	195.0	156.3	163.9	154.5	197.7
1967	173.5	196.0	164.6	173.1	160.7	216.2
1968	174.6	198.1	170.0	174.5	163.3	243.0
1969	178.2	205.4	170.8	176.6	165.6	233.3
1970	220.9	275.4	202.8	204.2	195.2	204.8
January	190.6	237.8	183.7	189.5	177.4	255.9
February	193.5	244.9	186.0	191.2	179.7	258.4
March	211.7	278.1	196.2	192.9	188.1	299.1
April	219.8	277.2	201.8	197.9	193.0	314.7
May	221.8	276.3	202.8	200.6	194.8	310.4
June	225.2	278.3	203.9	201.5	195.7	316.5
July	229.2	279.3	203.0	202.0	195.7	314.0
August	229.7	280.2	202.1	203.8	196.1	302.6
September	230.7	283.0	204.5	206.0	198.5	303.7
October	231.7	286.9	210.9	215.7	203.6	313.6
November	233.2	290.4	218.5	222.3	208.6	337.6
December	234.1	292.9	220.8	226.7	211.6	331.0
1971						
January	238.7	303.0	225.0	232.8	215.7	336.5
February	240.3	303.4	224.9	235.3	216.4	330.9
March	242.0	308.8	226.8	239.3	219.0	325.9
April	242.4	309.5	230.4	243.4	222.2	328.3
May	243.1	310.1	228.9	242.9	221.6	321.8
June	246.0	312.8	231.0	245.6	223.6	325.6
January to June average	242.1	307.9	227.8	239.9	219.8	328.2

Source: Central Bank of the Philippines.



## Retail Prices

Retail price index measures the changes in the prices at which retailers in Manila and the suburban areas sell their goods to consumers and households.

Prices of foodstuff demonstrated a similar upward trend. Prices of fish climbed by 31.34 percent from 253.0 in 1970 to 332.3 in 1971. Index for meat increased from 223.0 in 1970 to 286.4 in 1971 or a percentage increase of 28.43 percent as compared with the increase of 22.46 percent from 182.1 in 1966 to the index of 1970. The prices of fruits went up by 30.52 percent in a year's time from 264.4 in 1970 to 345.1 in 1971 (Table XXI.14)

Table XXI.14-- RETAIL PRICE INDEX OF FOODSTUFFS<sup>1/</sup> IN MANILA: 1961-1971  
(1955=100)

Period	All items (1)	Cereals (2)	Fish (3)	Meat (4)	Vegetables (5)	Fruits (6)	Eggs & milk (7)	Fats & oils (8)	Miscellaneous (9)
1961	118.9	118.2	121.0	113.3	119.7	145.4	116.9	110.5	120.2
1962	127.9	113.5	141.8	126.8	127.5	153.4	155.4	117.4	122.9
1963	140.4	127.5	153.5	145.8	126.0	168.5	176.6	124.2	129.7
1964	158.4	152.4	157.6	163.1	172.1	181.2	183.4	129.4	144.7
1965	161.3	149.3	174.7	167.4	164.0	191.6	185.5	146.1	142.9
1966	176.4	173.8	183.0	182.1	184.3	191.7	188.6	149.5	156.4
1967	190.6	190.3	204.6	187.3	225.3	203.4	187.2	150.7	160.9
1968	187.0	172.9	199.3	194.5	192.2	274.2	190.9	176.7	169.6
1969	190.2	175.6	212.5	195.7	180.4	243.0	190.2	172.7	185.6
1970	222.1	190.3	253.0	223.0	238.8	264.4	236.2	243.4	217.2
1971	275.1	243.2	332.3	286.4	291.7	345.1	268.1	267.1	236.8
January	258.8	199.3	339.4	254.0	33.2	301.6	264.0	270.0	227.3
February	247.7	221.4	310.5	263.0	182.6	294.0	255.9	272.2	226.4
March	250.9	230.4	310.0	267.6	174.7	306.5	258.7	270.1	225.5
April	252.8	235.8	298.2	270.5	192.8	315.6	259.7	268.7	225.9
May	262.2	238.7	308.8	278.4	246.6	324.5	260.7	265.0	229.5
June	280.9	248.0	334.0	288.7	338.1	344.8	271.7	264.6	232.2
July	291.2	264.9	328.0	302.2	376.1	352.8	270.8	263.1	237.8
August	293.9	271.0	330.3	303.7	364.2	365.8	270.4	263.5	244.2
September	304.2	272.2	366.1	310.4	364.1	402.5	276.0	264.8	251.1
October	302.6	265.9	350.4	317.2	368.6	416.3	283.6	265.0	255.6
November	302.0	261.3	373.2	319.9	318.0	412.6	288.2	266.2	259.9

<sup>1/</sup> Food component of the consumer price index.

Source: Central Bank of the Philippines.

Prices of selected commodities (Table XXI.15) like food and fuel increased by approximately 17.59 percent and 17.33 percent respectively, from 1969 to 1970. All other component indices of selected commodities registered more than 20 percent increases with the exception of drugs and medicine which increased by 6.72 percent only.

Table XXI.15 RETAIL PRICE INDEX OF SELECTED COMMODITIES IN MANILA: 1961 TO 1971  
(1955 = 100)

Period	All items	Food	Wearing apparel	Construction materials	Fuel	Drugs and medicine	School supplies	Beverages and tobacco	Household supplies and services
1961	119.7	120.2	126.5	126.5	110.5	100.6	118.6	121.7	121.9
1962	128.3	130.2	137.0	130.1	111.4	117.6	121.6	130.1	130.2
1963	136.4	143.1	138.6	138.7	113.8	120.9	123.6	131.0	133.6
1964	146.9	160.7	139.5	145.0	111.7	123.7	125.5	145.8	135.7
1965	149.7	163.3	142.8	147.4	115.2	123.8	128.2	145.4	138.4
1966	157.6	177.5	145.0	150.2	116.2	125.7	133.3	147.2	141.3
1967	165.2	191.1	150.5	151.9	116.8	122.8	136.6	147.2	142.6
1968	164.8	187.7	153.3	155.3	117.7	121.8	139.0	147.0	147.4
1969	167.6	191.0	155.2	157.8	118.3	123.6	144.6	149.2	149.4
1970	201.6	224.6	193.8	192.3	138.8	131.9	204.1	182.3	180.6
January	180.5	205.5	163.7	170.5	118.9	129.3	181.0	153.4	158.7
February	181.0	203.2	166.1	176.7	119.0	128.1	190.3	154.9	161.0
March	189.2	207.7	179.5	190.8	125.1	132.8	211.2	159.0	175.3
April	197.9	212.7	191.4	194.7	140.1	134.9	223.5	189.6	180.7
May	200.0	214.8	198.5	194.9	140.5	135.5	226.0	189.7	183.8
June	200.7	216.8	195.2	195.3	137.5	130.8	228.9	191.6	183.9
July	204.4	225.6	198.6	196.7	145.5	130.5	200.1	191.6	186.8
August	205.6	228.3	204.2	191.7	146.1	131.2	196.6	191.6	183.0
September	207.1	231.1	204.6	191.6	146.2	130.5	198.4	191.6	187.1
October	213.4	242.1	203.8	199.8	146.8	132.4	197.9	191.6	188.0
November	220.0	254.4	206.9	202.1	149.7	133.3	196.9	191.6	188.7
December	219.3	251.3	212.7	202.9	149.8	133.3	196.9	191.6	189.6
1971	225.9	260.8	219.4	206.9	156.4	132.4	196.9	194.2	192.2
January	226.2	257.2	220.3	211.5	154.6	132.5	196.9	216.9	193.9
February	223.8	251.1	223.0	217.6	157.0	133.2	198.2	216.9	195.5
March	226.7	254.2	224.8	220.7	157.5	133.2	198.2	216.9	196.6
April	228.5	256.0	226.8	224.1	157.5	134.9	200.4	216.9	199.1
May	233.3	264.8	228.8	225.3	157.5	134.9	201.1	216.9	201.0
June	227.4	257.4	223.8	217.7	156.8	133.5	198.6	213.1	194.5

Source: Central Bank of the Philippines.

The index for galvanized iron sheet was 100.99 in Baguio, 140.50 in Aparri and 152.07 in San Jose, Buenavista. That for paint was lowest in Tandag at 65.25 and highest at 111.04 in Tagbilaran.

Table XII, 16.—RETAIL PRICES AND PRICE INDICES OF SELECTED COMMODITIES IN MADRID AND IN SELECTED CITIES AND PROVINCIAL CAPITALS, 1904  
(Madrid = 100. Prices in pesetas)

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Table XII.16—RETAIL PRICES AND PRICE INDICES OF EMPLOYED COMMODITIES IN MANILA AND IN EMPLOYED CITIES AND PROVINCIAL CAPITALS 1969 - Continued

(Manila = 100. Prices in pesos)

Commodity	Manila		Vinc		San Jose, Bameralia		Surrogon		Bagio		Laguna		Raga		Dagupan		Tagbilaran	
	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index
<b>Foodstuffs</b>																		
Rice	...	95.40	...	90.60	...	82.51	...	82.51	...	100.11	...	102.07	...	84.97	...	84.27	...	112.95
Marang, 1st. class	2.04	85.00	1.89	78.75	1.95	64.98	2.04	85.00	...	...	2.13	88.75	2.10	87.90	2.05	85.42	...	...
Marang, 2nd. class	1.91	81.04	1.87	81.30	1.46	63.48	1.84	80.00	2.29	99.97	2.09	88.28	1.88	81.74	1.91	83.04	1.97	85.65
Macan, 1st. class	1.87	115.43	1.88	116.05	1.76	107.41	1.80	111.11	1.60	98.77	1.95	120.37	...	...	...	...	2.07	127.78
Macan, 2nd. class	...	...	...	...	1.60	105.36	1.60	105.36	1.55	101.97	1.75	115.13	...	...	...	...	1.98	130.21
Corn Grain	...	117.89	...	...	...	...	...	...	...	118.95	...	...	...	...	...	...	...	...
Red	1.12	117.89	...	...	...	...	...	...	1.13	118.95	...	...	...	...	...	...	...	...
White	0.80	...	...	...	...	...	...	...	1.12	...	...	...	...	...	0.79	...	0.67	...
Corn Grit	...	126.73	...	86.14	...	84.36	...	93.07	...	111.88	...	91.09	...	98.02	...	126.73	...	...
Red	1.28	126.73	0.87	86.14	0.85	84.36	0.94	93.07	1.13	111.88	0.92	91.09	0.99	98.02	1.28	126.73	...	...
White	0.85	...	0.98	...	0.91	...	0.97	...	1.12	...	0.98	...	0.94	...	0.86	...	0.79	...
Sugar	...	100.41	...	98.86	...	98.86	...	95.22	...	100.00	...	99.25	...	...	...	98.86	...	104.08
Washed	0.78	97.50	...	...	0.60	75.00	0.76	95.00	...	...	0.73	91.25	0.77	96.25	...	...	0.83	103.75
Refined	0.91	103.41	0.87	98.86	0.85	96.99	0.84	95.43	0.88	100.00	0.95	107.95	0.92	104.54	0.87	98.86	0.92	104.55
Coffee																		
Raw beans	...	85.71	...	...	...	...	...	99.16	...	89.27	...	...	...	...	...	204.54	...	109.99
Robusta	7.93	79.62	...	...	...	...	5.00	50.20	8.77	88.05	...	...	...	...	10.45	104.72	9.84	98.80
Excelsa	8.35	92.26	...	...	...	...	6.30	69.61	8.19	90.50	...	...	...	...	10.54	116.46	11.00	121.55
Instant	...	97.65	...	100.44	...	98.14	...	103.67	...	101.34	...	100.70	...	97.60	...	97.45	...	103.44
Mocafé	2.19	99.54	2.23	101.36	2.28	99.09	2.30	104.54	2.20	100.00	2.2	100.00	2.22	100.91	2.15	97.73	2.2	104.09
Puro	2.05	95.79	2.13	99.53	2.08	97.20	2.08	102.80	2.20	102.80	2.17	101.40	2.08	94.39	2.07	96.73	2.20	102.80
<b>Meat</b>																		
Fresh	...	71.18	...	64.71	...	71.24	...	74.94	...	107.47	...	121.13	...	85.41	...	70.33	...	75.07
Beef, 1st. class without bones	3.98	56.37	3.70	52.41	3.52	49.86	3.93	52.83	6.50	92.07	3.63	514.89	4.50	63.74	3.99	50.85	3.80	53.82
Beef, 2nd. class with bones	3.25	81.25	3.29	82.25	3.22	80.50	3.38	84.50	4.66	116.50	3.03	75.75	3.50	87.50	3.11	77.75	3.47	86.75
Pork, 1st. class without bones	3.31	73.23	2.64	58.41	3.50	77.43	3.44	76.11	5.00	110.62	3.47	76.77	4.46	98.67	3.99	79.42	3.50	77.43
Pork, 2nd. class with bones	2.77	76.52	2.52	69.61	3.00	82.87	3.36	92.82	4.04	112.43	3.06	84.53	3.50	96.68	2.82	77.90	3.18	87.85
Canned	95.61	95.61	...	96.52	...	89.54	...	109.97	...	106.07	...	96.19	...	98.55	...	100.64	...	83.61
Libby's	2.34	91.41	2.32	90.62	2.44	95.31	2.66	103.91	...	...	2.38	92.97	2.80	109.38	2.64	103.12	2.07	80.86
Morcy	2.14	100.00	2.20	102.80	1.80	84.11	2.44	114.02	2.27	106.07	2.13	99.53	1.90	88.78	2.36	110.28	1.85	86.45
Chicken unprocessed	...	56.80	...	70.49	...	63.77	...	52.12	...	83.93	...	62.37	...	73.93	...	44.99	...	42.39
Manin	2.97	48.37	4.35	70.85	4.00	65.14	3.20	52.12	5.26	85.67	3.94	64.17	4.03	65.64	2.35	38.27	2.22	36.16
Dumaga	2.59	63.64	3.11	81.33	2.62	64.37	2.22	54.54	3.48	85.09	2.66	65.04	3.73	91.20	2.00	49.14	1.82	44.50
Bandang	3.37	59.54	3.84	60.78	3.50	61.84	2.82	49.82	4.59	81.10	3.49	58.13	3.92	67.49	2.74	48.41	2.68	47.35
Eggs	...	92.23	...	107.30	...	94.61	...	95.00	...	112.45	...	96.11	...	96.99	...	82.52	...	79.03
Native	1.83	76.97	2.37	99.16	2.00	83.68	2.32	97.07	2.90	104.60	2.12	88.70	2.30	92.05	1.78	74.48	1.79	74.90
White laghorn	2.02	105.21	2.21	115.10	2.26	117.71	2.13	110.94	1.91	99.48	1.84	95.83	2.20	114.58	2.02	105.21	1.97	102.60
Duck, fresh	2.37	87.45	...	...	2.33	85.98	2.20	81.18	...	...	2.24	82.66	2.40	88.56	...	...	1.74	64.21
Duck, salted	3.45	107.14	...	...	...	...	3.00	93.16	4.40	136.65	2.89	89.75	3.00	93.17	...	...	...	...
Fish, fresh	...	63.95	...	55.24	...	37.84	...	110.49	...	127.23	...	63.94	...	61.40	...	...	...	61.97
Bungus	2.11	58.29	2.00	55.24	1.37	37.84	4.00	110.49	4.51	115.35	2.27	98.06	2.20	96.27	...	...	2.14	54.73
Lapa-lapa	2.54	70.17	4.82	...	1.90	...	1.92	...	5.08	140.33	2.55	70.44	2.37	65.47	...	...	2.54	70.17
Dried	...	34.37	...	42.32	...	...	...	127.96	...	94.92	...	120.48	...	55.30	...	...	...	80.15
Tunony, 1st. class	2.49	60.29	2.83	68.52	...	...	1.71	259.32	3.92	94.92	7.88	190.80	3.22	77.97	...	...	2.31	80.15
Minapa, 1st. class	1.50	19.61	2.00	26.14	...	...	1.83	63.14	...	...	5.82	76.08	3.00	39.22	...	...	...	...
<b>Vegetables and fruits</b>																		
Fruits and leafy vegetables	...	55.93	...	93.79	...	80.25	...	51.52	...	80.11	...	...	...	98.97	...	109.03	...	112.13
Tomatoes	0.94	71.21	0.69	52.27	0.57	43.18	0.25	18.94	1.16	87.88	0.70	53.09	0.35	26.52	0.84	63.44	1.03	78.03
Eggplant	0.93	16.61	0.67	110.71	0.36	64.29	0.27	48.21	0.44	78.57	0.60	107.14	0.37	66.07	0.80	142.86	0.58	12.57
Cabbage	1.39	147.87	1.47	156.38	1.75	186.17	1.44	153.19	0.70	74.47	1.36	144.68	1.10	117.02	1.34	142.55	1.64	174.47
Tubers	...	106.27	...	105.30	...	115.21	...	81.21	...	134.32	...	86.52	...	98.21	...	100.80	...	76.05
Garlic, native	3.71	118.15	3.05	97.13	3.23	102.87	2.55	81.21	6.37	202.87	2.63	83.76	3.14	100.00	3.37	107.32	3.42	108.92
Onion, native	1.08	95.98	1.29	114.16	1.46	129.20	...	...	1.00	88.50	1.01	89.38	1.09	96.46	1.07	94.69	0.60	53.10
Legumes	...	96.31	...	73.80	...	82.18	...	104.97	...	115.36	...	51.82	...	39.12	...	94.87	...	122.13
Mungo, yellow	2.89	95.70	...	...	2.62	86.75	3.17	104.97	3.30	109.27	1.53	50.66	1.08	35.76	2.97	98.34	3.54	117.22
Mungo, green	2.61	96.31	2.00	73.80	2.11	77.86	...	...	3.30	121.77	1.43	52.77	1.16	42.80	2.48	91.51	3.43	127.31
Fruits (bananas)	...	99.86	...	39.43	...	55.20	...	46.95	...	202.36	...	76.64	...	67.41	...	46.87	...	82.00
Lakatan	3.08	58.67	2.07	39.43	3.00	97.14	2.17	41.33	12.92	216.10	4.47	87.05	3.00	97.14	2.03	38.67	3.95	75.24
Latundan	2.29	61.07	...	...	2.00	53.33	2.00	53.33	6.24	166.40	2.53	67.47	3.00	80.00	2.13	56.80	3.27	87.20

Table XII.16—RETAIL PRICES AND PRICE INDICES OF SELECTED COMMODITIES IN MANILA AND IN SELECTED CITIES AND PROVINCIAL CAPITALS: 1969 - Continued

(Manila = 100. Prices in pesos)																					
Commodity		Manila		Cebu		Zamboanga		Davao		Cagayan de Oro		Aparri		Balanga		Batangas		Borac		Davao	
		Unit	Price	Index	Unit	Price	Index	Unit	Price	Index	Unit	Price	Index	Unit	Price	Index	Unit	Price	Index	Unit	Price
Fish, fresh	kilo	...	...	31.20	...	...	...	75.96	...	28.13	...	74.13	...	42.00	...	65.10	...	56.64	...	60.77	...
Bangka	"	3.91	1.22	31.20	...	...	...	2.97	75.96	0.56	14.32	3.62	92.98	1.09	27.88	3.00	76.72	2.27	98.06	2.20	60.77
Lapa-lapa	"	3.62	...	...	...	...	...	...	...	2.00	55.25	2.25	62.15	2.29	63.26	2.00	55.24	2.00	55.25	2.20	...
Dried	100 pieces	...	...	...	...	...	...	28.07	...	32.63	...	135.99	...	81.19	...	97.85	...	51.55	...	44.47	...
Tunny, 1st. class	"	4.13	...	...	...	...	...	1.66	40.19	1.77	42.86	5.60	135.99	4.54	109.93	5.50	133.17	2.96	61.98	2.50	60.53
Tinapa, 1st. class	"	7.65	...	...	...	...	...	1.50	19.61	1.90	24.84	...	...	5.05	66.01	5.50	71.90	3.28	42.88	2.50	32.68
Vegetables and fruits																					
Fruit and leafy vegetables	kilo	...	...	76.30	...	170.28	...	159.57	...	70.84	...	73.08	...	105.18	...	172.89	...	102.14	...	93.66	...
Tomatoes	"	1.32	0.56	42.42	1.34	101.52	...	...	0.53	40.15	0.57	43.18	1.26	95.45	1.90	143.94	0.88	66.67	1.44	109.09	...
Eggplant	"	0.56	0.52	92.86	1.80	321.43	...	...	0.59	105.36	0.39	69.64	0.65	116.07	0.90	160.71	0.51	91.07	0.26	46.43	...
Cabbage	"	0.94	1.06	112.77	1.39	147.87	1.50	159.57	0.79	84.04	1.22	129.79	1.01	107.45	2.10	223.40	1.65	175.53	1.54	163.83	...
Bahers	kilo	...	...	100.95	...	119.68	...	124.25	...	99.71	...	121.97	...	102.81	...	105.84	...	72.65	...	102.81	...
Garlic, native	"	3.14	4.52	143.95	3.68	117.20	3.58	114.01	2.53	80.57	3.80	121.02	4.12	131.21	4.50	143.31	3.63	115.60	3.75	119.43	...
Onion, native	"	1.13	0.80	70.80	1.38	122.12	1.53	135.40	0.50	44.25	1.38	122.12	0.91	80.53	0.90	79.65	1.07	94.69	1.00	88.50	...
Legumes	kilo	...	...	92.11	...	100.32	...	70.66	...	92.25	...	98.68	...	98.34	...	106.60	...	51.62	...	104.97	...
Mungo, yellow	ganta	3.02	2.80	92.72	2.87	95.03	2.27	75.17	...	2.98	98.68	2.97	98.34	3.02	100.00	1.19	39.40	3.17	104.97	...	...
Mungo, green	"	2.71	2.48	91.51	2.87	105.90	1.80	66.42	2.50	92.25	...	...	...	...	...	3.08	113.65	1.75	64.58	...	...
Fruits (banana)	100 pieces	...	...	52.21	...	...	...	57.85	...	40.70	...	48.00	...	123.44	...	156.14	...	51.58	...	50.39	...
Lakatan	"	5.25	2.81	53.52	...	...	...	3.60	68.57	2.16	41.14	2.32	48.00	9.83	187.34	8.00	152.38	1.51	28.76	3.50	47.62
Latundan	"	3.75	1.91	50.93	...	...	...	1.83	48.80	1.51	40.27	...	...	3.06	81.60	6.00	160.00	1.50	34.67	2.00	53.33
Milk																					
Evaporated	tin	...	...	106.28	...	94.26	...	107.99	...	99.25	...	101.81	...	90.26	...	91.09	...	92.11	...	98.74	...
Condensed	"	...	...	130.35	...	109.00	...	138.24	...	95.74	...	94.49	...	97.08	...	101.74	...	94.42	...	91.77	...
Soderits, 14 ounces	"	0.94	1.00	106.38	0.94	130.00	1.00	106.38	0.90	95.74	1.00	106.38	0.94	100.00	0.90	95.74	0.94	100.00	0.95	101.06	...
Bur Brand, 14 ounces	"	0.72	1.15	159.72	...	...	...	1.35	181.50	...	...	...	...	...	...	...	...	...	...	...	...
Dutch Baby, 14 ounces	"	0.74	...	...	...	...	...	0.98	132.43	...	...	0.65	87.84	0.65	87.84	0.80	108.11	0.65	87.84	...	...
Clothing and Household Supplies																					
Textiles	yard	...	...	92.57	...	118.48	...	132.26	...	97.84	...	106.05	...	...	...	...	...	91.28	...	163.67	...
Flannel printed	"	1.45	1.27	87.59	1.90	131.03	2.36	162.07	2.50	172.41	1.80	124.14	...	...	...	...	1.90	124.14	1.75	120.69	...
Ray shirting (katee)	"	0.98	...	...	...	107.14	1.00	102.34	0.90	81.63	0.99	90.82	...	...	...	...	...	...	...	...	...
Oxford, 1st. class	"	2.55	2.50	98.94	...	...	...	3.94	154.51	2.20	89.27	2.37	100.78	...	...	...	...	1.96	76.86	2.50	95.04
Oxford, 2nd. class	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic, 1st. class	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic, 2nd. class	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Crystal milk	"	2.65	1.40	92.45	...	...	...	3.62	136.60	2.00	75.47	2.95	111.32	...	...	...	...	2.52	95.09	3.50	132.08
Household supplies		...	...	96.07	...	105.55	...	150.00	...	105.03	...	104.51	...	109.30	...	...	...	105.23	...	117.80	...
Laundry soap, wheel	bar	0.90	1.01	112.22	0.90	100.00	0.95	105.96	1.00	111.11	0.90	100.00	...	...	...	...	0.92	102.22	1.00	111.11	...
Match, Jar	box	0.28	0.25	89.29	0.31	110.71	0.38	135.71	0.30	107.14	0.30	107.14	0.35	125.00	...	...	...	0.35	125.00	0.35	125.00
Kerosene	can	5.65	5.00	88.50	6.60	106.19	6.00	106.19	5.50	97.34	6.02	106.55	5.40	95.58	...	...	...	5.15	91.15	...	...
Drugs and medicine																					
Aspirin, Bayer	tablet	0.025	...	...	...	118.81	...	158.97	...	71.90	...	107.72	...	109.47	...	...	...	162.10	...	152.01	...
Cefaspirin	"	0.05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cortical	"	0.05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Novelidine	"	0.08	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Salicylic acid	"	0.02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Salicylic acid	"	0.04	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcohol, rubbing, 16 ounces	bottle	0.75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Construction materials																					
Lumber		...	...	108.92	...	...	...	69.43	...	56.31	...	53.57	...	...	...	...	...	...	62.54	...	42.10
1st. group		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Barru	bl.ft.	1.12	1.19	106.25	...	...	...	0.75	66.96	0.50	44.64	0.60	53.57	...	...	...	...	0.60	53.57	...	...
Ipil	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kabal	"	0.95	0.98	103.16	...	...	...	0.73	76.84	0.50	52.63	...	...	...	...	...	...	0.60	63.18	0.40	42.10
Onino	"	0.83	0.98	118.07	...	...	...	0.54	65.06	0.50	60.24	0.50	...	...	...	...	...	0.60	72.29	...	...
2nd. Group	"	...	...	89.81	...	105.32	...	79.37	...	75.74	...	82.71	...	...	...	...	...	...	71.43	...	66.20
Aptong	"	0.42	0.38	90.46	0.45	107.14	0.35	83.33	0.32	76.19	0.35	83.33	...	...	...	...	...	0.30	71.43	0.28	66.67
Red Luan	"	0.41	0.38	92.69	0.45	109.76	0.31	75.61	0.32	78.05	0.35	85.37	...	...	...	...	...	0.30	...	0.28	68.29
Tangula	"	0.44	0.38	86.39	0.45	107.27	...	...	0.32	72.73	0.35	79.54	...	...	...	...	...	0.30	...	0.28	63.64
Paloanaga	"	0.42	...	...	0.45	107.14	...	...	0.32	76.19	...	...	...	...	...	...	...	0.30	71.43	...	...
3rd. Group	"	...	...	92.68	...	109.76	...	75.61	...	...	...	...	...	...	...	...	...	...	68.29	...	68.29
White Luan	"	0.41	0.38	92.68	0.45	109.76	0.31	75.61	...	...	...	...	...	...	...	...	...	0.28	68.29	0.28	68.29
Alon	"	0.41	0.38	92.68	0.45	109.76	...	...	...	...	...	...	...	...	...	...	...	0.28	68.29	...	...
Galvanized Iron Sheet		...	...	...	...	146.12	...	107.14	...	135.54	...	140.50	...	136.05	...	...	...	...	134.21	...	152.00
Galvanized iron sheet, corrugated gauge 26 x 36 x 8	sheet	6.05	...	...	8.84	146.12	6.24	107.14	8.20	135.54	8.50	140.50	8.23	136.05	...	...	...	8.12	134.21	9.20	152.00
Galvanized 26 x 36 x 8	"	...	...	...	8.84	...	...	7.71	...	8.20	...	6.50	...	8.23	...	...	...	6.65	...	9.20	...
Cement		...	...	101.77	...	127.23	...	129.47	...	122.14	...	114.50	...	101.27	...	...	...	...	119.46	...	...
Republic, 94 lbs.	bag	3.93	3.95	100.51	...	...	...	5.19	132.06	4.80	122.14	4.50	114.50	3.98	101.27	...	...	4.92	125.19	...	...
Universal, 94 lbs.	"	3.93	4.05	103.05	5.00	127.23	5.00	127.23	4.80	122.14	4.50	114.50	...	...	...	...	...	4.48	113.99	...	...
Paints		...	...	83.83	...	95.37	...	94.44	...	81.44	...	78.76	...	77.17	...	...	...	...	88.10		

Table XXI.16—RETAIL PRICES AND PRICE INDICES OF SELECTED COMMODITIES IN MANILA AND IN SELECTED CITIES AND PROVINCIAL CAPITALS: 1969 - Continued

Commodity	Manila		Visay		San Jose, Buenavista		Sorsogon		Bagnio		Lagundi		Naga		Davao City		Tagbilaran	
	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index	Price	Index
<b>Milk</b>																		
Evaporated	...	104.40	...	101.23	...	115.82	...	97.05	...	94.84	...	92.00	...	91.95	...	102.22	...	104.18
Guaranteed, 14 ounces	0.70	94.99	0.73	98.65	0.90	121.62	0.77	104.05	0.70	94.99	0.69	93.24	0.72	97.30	0.71	95.95	0.70	94.99
Alpine, 14 ounces	0.76	104.11	0.70	95.89	0.80	109.99	0.74	101.37	0.79	108.22	0.52	84.93	0.70	95.89	0.75	102.74	0.75	102.74
Dutch Baby, 14 ounces	0.69	115.00	0.65	108.33	0.70	116.67	0.52	86.67	0.50	83.33	0.59	98.33	0.50	83.33	0.65	108.33	0.70	116.67
Condensed	...	127.49	...	994.65	...	119.93	...	93.58	...	99.44	...	91.25	...	108.66	...	97.76	...	139.09
Sadorita, 14 ounces	0.96	106.67	0.99	105.32	0.96	102.13	0.98	104.26	0.95	101.06	0.98	104.26	0.90	95.74	0.90	95.74	1.08	114.89
Bear Brand, 14 ounces	1.15	159.72	0.66	91.67	1.50	208.33	0.57	93.06	0.72	100.00	0.67	81.71	0.84	116.67	0.80	111.11	1.30	180.56
Dutch Baby, 14 ounces	0.90	121.62	0.65	87.84	0.60	81.08	0.65	87.84	0.72	97.30	0.66	89.19	0.85	114.86	0.65	87.84	0.96	129.73
<b>Clothing and Household Supplies</b>																		
Textiles	...	116.12	...	90.98	...	132.62	...	113.95	...	121.22	...	124.93	...	83.87	...	96.94	...	119.02
Flannel, printed	174	120.00	1.46	100.69	1.80	124.14	1.50	103.45	1.61	111.03	1.99	109.66	1.35	93.10	...	...	1.72	118.62
Grey sheeting (kates)	1.10	112.24	...	...	1.10	112.24	0.90	91.84	1.71	174.49	2.20	224.49	0.90	91.84	0.95	96.94	1.42	144.90
Oxford, 1st. class	3.11	121.98	1.40	84.90	6.00	235.29	3.00	117.64	2.40	94.12	2.35	92.16	2.03	79.61	...	...	2.88	112.94
Organdy, US plain	1.95	...	...	2.50	...	...	...	...	...	...	...	...	...	...	...	...	2.50	...
Crystal silk	2.94	110.94	3.61	136.23	2.50	94.34	4.00	150.94	3.14	118.49	2.84	107.17	2.00	75.47	...	...	2.74	107.40
Household supplies	...	106.09	...	107.02	...	107.12	...	108.67	...	112.03	...	104.17	...	100.17	...	105.39	...	104.40
Laundry soap, wheel	0.94	104.44	0.93	103.33	1.00	111.11	0.93	103.33	1.00	111.11	0.90	100.00	0.90	100.00	0.90	100.00	0.94	104.44
Match, jar	0.33	117.86	0.33	117.86	0.35	125.00	0.32	114.29	0.35	125.00	0.35	107.14	0.35	125.00	0.35	125.00	0.35	125.00
Kerosene	5.48	96.99	5.70	100.08	5.00	88.49	...	...	5.72	101.24	5.11	90.44	5.30	90.44	5.29	93.63	5.13	90.80
<b>Drugs and medicine</b>																		
Aspirin, Bayer	0.03	120.00	0.25	100.00	0.05	100.00	0.05	120.00	0.03	120.00	0.01	40.00	0.05	300.00	0.03	120.00	0.02	80.00
Cortisone	0.04	80.00	0.08	160.00	0.13	260.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00
Cortol	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00	0.05	100.00
Novoline	0.10	125.00	0.08	100.00	0.13	162.50	0.10	125.00	0.10	125.00	0.10	125.00	0.10	125.00	0.10	125.00	0.10	125.00
Sulfathiazole	0.04	200.00	0.05	250.00	0.05	250.00	0.05	250.00	0.02	100.00	0.02	100.00	0.05	250.00	0.04	200.00	0.02	100.00
Sulfadiazine	0.05	125.00	0.05	125.00	0.05	125.00	0.10	250.00	0.03	75.00	0.05	125.00	0.05	125.00	0.05	125.00	0.02	50.00
Alcohol, rubbing, 16 ounces	0.75	100.00	1.07	142.67	0.90	120.00	0.99	132.00	0.80	106.67	1.08	144.00	0.90	120.00	0.60	80.00	0.65	86.67
<b>Construction materials</b>																		
<b>Lumber</b>																		
1st. group	...	68.80	...	58.15	...	...	...	...	...	116.67	...	174.76	...	80.27	...	82.11	...	53.94
Narra	0.83	74.11	0.62	55.36	...	...	...	...	...	...	...	...	0.80	71.43	...	...	...	...
Ipil	0.68	...	0.52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yakel	0.55	57.89	0.56	58.95	...	...	...	...	11.11	116.84	0.69	72.63	0.77	81.05	0.78	82.11	0.62	65.26
Gulao	0.63	75.90	0.50	60.24	...	...	...	...	...	...	0.61	73.49	0.75	90.36	...	...	0.37	44.58
2nd. group	...	93.85	...	86.75	...	104.68	...	71.03	...	104.18	...	151.28	...	73.31	...	90.36	...	82.25
Asitong	0.38	90.48	0.36	85.71	0.45	107.14	0.30	71.43	0.44	104.76	0.66	157.14	0.30	71.43	0.38	90.48	0.36	80.95
Red Luan	0.38	92.68	0.36	87.80	0.45	...	0.30	71.17	0.44	107.32	0.60	126.34	0.30	72.17	0.37	90.24	0.40	97.96
Taguile	0.38	86.36	...	...	0.45	102.27	0.30	68.18	0.44	100.00	0.69	156.82	0.30	68.18	...	...	0.31	70.45
Palosapis	0.45	107.14	...	...	...	...	0.30	71.43	0.44	104.76	0.61	145.24	0.30	71.43	...	...	...	...
3rd. group	...	97.43	...	73.17	...	97.56	...	73.17	...	97.56	...	63.42	...	73.17	...	87.80	...	...
White Luan	0.38	92.68	0.30	73.17	0.40	97.56	...	...	0.40	97.56	0.26	63.42	0.30	73.17	0.36	87.80	...	...
Alcan	0.42	102.44	...	...	0.40	97.56	0.30	73.17	0.10	97.56	0.26	63.42	...	...	...	...	...	...
Galvanized Iron Sheet	...	131.74	...	151.24	...	152.07	...	133.55	...	100.99	...	137.52	...	139.34	...	137.69	...	14.00
Galvanized iron sheet, corrugated gauge 26 x 36 x 8	7.97	131.74	9.25	151.24	9.20	152.07	8.08	133.55	6.21	100.00	8.32	137.52	8.43	139.34	8.33	137.69	8.47	140.00
Galvanized iron sheet, plain gauge 26 x 36 x 8	7.75	...	8.81	...	8.50	...	8.08	...	8.12	...	...	...	8.43	...	8.50	...	5.51	...
Cement	...	118.32	...	128.98	...	139.37	...	114.81	...	...	...	112.47	...	118.58	...	127.23	...	121.72
Republic, 94 lbs.	4.61	117.30	4.83	122.90	5.00	127.22	4.53	115.27	...	...	4.42	112.47	4.66	118.58	...	...	4.68	119.08
Universal, 94 lbs.	4.69	119.34	5.32	135.37	6.00	152.67	4.50	114.50	...	...	4.42	112.47	...	...	5.00	127.23	4.89	124.43
Paints	...	84.30	...	83.13	...	86.82	...	85.53	...	83.90	...	87.37	...	82.69	...	84.39	...	111.04
Dutch Boy	17.18	92.86	14.17	76.99	16.00	86.48	16.00	86.48	15.58	84.22	16.84	91.03	14.00	75.67	15.67	84.70	19.40	104.86
Ico	15.12	102.51	15.17	102.85	15.00	101.69	15.04	101.97	10.00	67.80	13.88	94.10	12.75	86.44	14.90	101.02	15.24	103.32
Fuller	18.09	52.53	15.13	72.92	17.00	81.92	14.23	68.58	19.00	91.97	14.50	69.88	...	...	18.42	88.77	23.29	112.24
Sherwin Williams	17.93	101.01	...	...	14.00	78.87	15.71	88.53	16.50	92.96	17.28	97.35	13.12	73.92	17.00	95.77	22.19	125.01

## Consumer Prices

Consumer price index measures the average changes in the retail prices of a "fixed basket of goods and services" purchased by an average household in the Philippines.

There are three indices put out monthly by Central Bank of the Philippines, these are: (a) the Consumer Price Index (CPI) for Manila (1955=100); (b) Consumer Price Index for Regions Outside Manila (1957=100); and (c) the Consumer Price Index for the Philippines (1957=100).

These indices are base-weighted arithmetical averages of price relatives. The weights are based on the percentage distribution of average expenditures per household in the corresponding geographic areas covered by the indices.

There is another consumer price index prepared by the Bureau of the Census and Statistics, the Consumer Price Index for Low-Income Families in Manila and Suburbs (1966=100). It measures the changes in prices of goods and services commonly purchased by families in Manila with family income of approximately ₱300.00 a month.

The retail prices which make up the consumer price index for all levels are divided into five major groups: food; clothing; rent and repairs; fuel, light and water; and miscellaneous goods and services, while the consumer price index for low income families are subdivided into: food; shelter; utilities; clothing; health, education and transportation; and miscellaneous.

The most prominent feature of price inflation was the steep run-up in consumer prices in all levels. In the consumer price index for the Philippines, as shown in Table XXI.17, food showed the highest percentage change of 29.33 percent from an index of 207.3 percent in 1970 to 268.1 percent in 1971. Noteworthy was the increase from February to December 1971 of 22.24 percent which was almost equivalent to the increase from 1966 to 1970 of 24.13 percent.

Table XXI.17—CONSUMER PRICE INDEX FOR THE PHILIPPINES, 1961-1971  
(1957=100)

Period	All items (1)	Food (2)	Clothing (3)	Rent and Repairs (4)	Fuel, light and water (5)	Miscel- laneous (6)
1961 . . . . .	110.3	113.8	114.5	102.2	106.0	105.8
1962 . . . . .	113.6	116.6	121.4	103.2	108.8	109.4
1963 . . . . .	122.6	132.5	125.3	104.8	111.2	111.6
1964 . . . . .	133.5	151.2	129.6	105.7	116.9	114.5
1965 . . . . .	137.6	156.3	136.1	107.1	121.7	117.0
1966 . . . . .	144.5	167.0	142.1	109.0	123.0	120.0
1967 . . . . .	153.0	180.8	150.3	111.1	123.1	122.7
1968 . . . . .	154.1	179.9	155.7	114.3	123.1	125.7
1969 . . . . .	156.7	181.0	160.2	115.3	124.2	130.4
1970 . . . . .	180.7	207.3	187.0	120.9	144.8	154.2
1971 . . . . .	222.4	268.1	224.5	126.1	175.7	176.4
January . . . .	204.4	240.2	206.6	123.3	165.3	168.8
February . . .	207.5	244.1	207.6	123.4	168.1	171.8
March . . . . .	208.4	245.1	212.1	123.5	169.3	172.8
April . . . . .	208.8	245.8	213.3	123.7	168.1	171.9
May . . . . .	211.0	249.3	215.1	123.7	169.9	172.7
June . . . . .	214.6	255.5	217.0	123.7	170.6	174.1
July . . . . .	224.9	272.3	224.2	128.8	179.1	177.0
August . . . .	230.7	282.4	228.3	128.6	177.4	178.5
September . .	235.1	288.3	233.8	128.6	179.3	180.6
October . . . .	239.4	296.6	240.1	128.8	185.7	182.7
November . . .	241.8	300.3	245.5	128.8	188.0	183.0
December . . .	261.7	298.4	249.9	128.8	187.5	184.5

Source: Central Bank of the Philippines.

Clothing had an initial index of 114.5 per cent, which rose to 228.3 per cent in August 1971 when the price of clothing materials had doubled. Fuel, light and water indicated the same pattern of price changes, the percentage increase of 21.34 per cent in 1971 or 175.7 over the previous year's 144.8 was by far the highest annual increase in the span of eleven years.

Prices of consumer items are generally higher in Manila than in regions outside Manila. However, price indices for the latter exhibited steep run-up by as much as 24.53 per cent for all items while the former increased by 19.02 per cent only from 1970 to 1971.

House rentals in Manila exhibited the highest percentage increase of 24.34 per cent from 1965 to 1970 while in regions outside Manila, the increase registered was less than 3 per cent or approximately 2.66 per cent. During the months of June and July, price index for house rent increased both in Manila and regions outside Manila, because of the influx of students from the barrios or rural areas to the cities for schooling.

Table XXI, 18-- CONSUMER PRICE INDEX IN MANILA, 1961-1971  
(1955 = 100)

Period	All items (1)	Food (2)	Clothing (3)	House rent <sup>1/</sup> (4)	Fuel-light and water (5)	Miscellaneous (6)
1961	113.2	118.9	128.7	104.3	106.0	104.0
1962	119.8	137.9	138.9	107.0	107.9	107.5
1963	126.5	140.4	140.2	110.2	109.4	108.8
1964	136.9	158.4	140.9	112.3	120.4	111.9
1965	140.4	161.3	144.5	116.0	132.4	114.9
1966	149.1	176.4	146.8	120.4	130.4	118.3
1967	157.6	190.6	153.1	126.4	130.8	121.0
1968	158.1	187.0	156.2	134.8	134.5	124.2
1969	160.4	190.2	158.0	137.7	133.5	126.0
1970	188.2	222.1	199.2	149.7	158.6	148.2
1971	224.0	275.1	241.5	160.4	179.9	164.7
January	212.6	258.8	226.9	154.3	179.0	158.7
February	211.5	254.5	227.7	154.3	178.5	161.6
March	208.7	247.7	230.7	154.3	177.8	162.2
April	210.4	250.9	232.5	154.3	177.7	162.3
May	211.4	252.8	234.7	154.3	177.7	162.1
June	216.1	262.2	236.7	154.3	177.7	162.3
July	227.1	280.9	238.7	166.6	178.6	165.1
August	232.5	291.2	241.7	166.6	179.1	166.1
September	235.4	293.9	250.1	166.6	179.6	168.9
October	241.0	304.2	252.7	166.6	183.1	169.6
November	240.7	302.6	262.1	166.6	183.5	168.7
December	240.7	302.0	263.0	166.6	186.0	168.9

<sup>1/</sup> Data gathered twice a year — every January and July.

Source: Central Bank of the Philippines.

Table XII.19— CONSUMER PRICE INDEX FOR REGIONS OUTSIDE MANILA, 1961-1971  
(1957=100)

Period	All items (1)	Food (2)	Clothing (3)	Rent and Repairs (4)	Fuel-light and water (5)	Miscellaneous (6)
1961 . . . . .	111.0	114.6	115.0	100.7	105.3	106.8
1962 . . . . .	113.2	115.4	121.0	100.9	108.5	110.3
1963 . . . . .	123.2	132.9	126.0	101.4	111.2	112.9
1964 . . . . .	134.4	152.3	131.7	101.6	114.7	115.8
1965 . . . . .	138.8	158.2	139.6	101.7	116.3	118.2
1966 . . . . .	145.2	167.7	147.1	101.8	119.2	120.9
1967 . . . . .	153.8	181.6	156.3	102.0	119.0	123.7
1968 . . . . .	155.2	181.6	162.8	102.1	117.4	126.6
1969 . . . . .	157.9	182.1	168.4	102.1	119.2	132.2
1970 . . . . .	181.0	207.1	191.6	104.0	138.1	156.7
1971 . . . . .	225.4	271.8	229.1	106.0	172.8	181.1
January . . . .	204.8	239.4	209.3	105.1	158.4	172.9
February . . .	209.4	246.2	210.4	105.2	162.6	175.9
March . . . . .	211.6	249.8	215.6	105.5	164.6	175.7
April . . . . .	211.6	247.7	216.7	105.8	163.0	175.7
May . . . . .	214.3	253.8	218.4	105.7	165.5	176.9
June . . . . .	217.5	259.0	220.3	105.8	166.5	178.7
July . . . . .	227.7	274.2	229.7	106.6	178.2	181.7
August . . . .	233.8	285.8	234.4	106.4	175.6	183.4
September . . .	238.7	293.0	239.1	106.4	178.1	185.2
October . . . .	242.7	300.8	247.0	106.6	185.7	187.8
November . . .	246.1	306.3	251.3	106.6	188.8	188.6
December . . .	246.0	304.0	257.1	106.6	187.1	190.5

Source: Central Bank of the Philippines.

Fluctuations in the prices of food are influenced by the seasonality of fruits and vegetables as evidenced by the increase in the indices for the months of June, July and August, the rainy season months. During the dry or summer season, March to May, fruits and vegetables abound the market and automatically lower prices. However, during the rainy season, food crops are destroyed by typhoons which are truly destructive, sometimes do damage not only to plants and fish beds but also to roads and bridges, hampering the efficient distribution of the products from the source to the consumer thus causing higher prices of food products.

### Consumers' Price Index for Low Income Families in Manila (CPI, 1966=100)

As time passes, a base of an index becomes less meaningful although that particular base has been satisfactory for a number of years. The base year for the consumer's price index for low income families in Manila is 1961 which is ten years ago. During this lapse of time many factors have led to the changes in the consumption habits of the people. Among these changes are inflation, growth of population and technological development.

To make the base more meaningful and useful in following current price movements it has become necessary to bring forward the reference year or to shift the base year of these indices. For the new series, the base year is 1966. In order to provide continuity between the old series with 1961 as the base and the current one with 1966 as the reference period a link has to be established.



Since it would require lengthy and laborious computations to link each of the components of the various indices, simple splicing was done to join the two series. This is possible as both series aim to measure the same universe; that is, price changes of goods and services customarily consumed by low income households in Manila, in the case of the CPI. This simple splicing was done by merely rebasing the indices of the old series on the base of the new one with 1966 as the reference year.

The new series of monthly consumer price index for middle income families in Manila and the suburbs is the result of the efforts of the Bureau of the Census and Statistics to provide the private as well as the public sectors with more statistics which they can use in their day to day operations.

Because of inflation and a fast growth of the population, higher levels have been attained by income and prices. The result of several income and expenditure surveys of the Bureau of the Census and Statistics showed a shift to higher income and expenditure levels which necessitated a change in the classification of the households by income levels. In Manila and the suburbs, where before the low income group covers all households earning ₱2,400 and below yearly based on the former series 1961=100, it now includes all households whose annual income fall below ₱4,000 based on the new series 1966=100. All those whose annual income fall between ₱4,000 and ₱9,999 (1966 = 100) belong to the middle income group for which this index is being published.

The consumer's price index for low-income households in Manila for the year 1971 is presented in Table XXI.20. A 0.45 per cent decline on all items was noted for the month of February when compared with that of the preceding month. This decline was caused by the drop of 1.44 per cent in the food index and 3.47 per cent in the utility index.

Table XXI.20— CONSUMERS' PRICE INDEX FOR LOW-INCOME HOUSEHOLDS IN MANILA AND SUBURBS, BY MONTH: JANUARY TO DECEMBER

(New series with 1966=100. For families whose income is less than ₱4,000.00 a year)

Year and Month	All items	Food	Shelter	Utilities	Clothing	Health, education and trans- portation	Miscel- laneous	Purchasing power of the peso
1971								
January .....	143.17	144.58	134.89	144.90	155.60	144.19	140.64	₱0.698
February .....	142.72	143.14	135.04	141.43	159.04	144.35	143.17	0.701
March .....	142.89	141.87	135.48	143.34	160.48	146.57	146.17	0.700
April .....	146.19	146.66	146.76	141.48	159.92	146.06	140.22	0.684
May .....	148.47	149.77	146.62	141.73	160.83	146.33	143.93	0.674
June .....	153.01	157.47	146.84	141.96	162.91	146.27	144.95	0.654
July .....	158.57	159.76	174.13	141.41	165.30	148.74	145.60	0.631
August .....	162.02	165.37	174.16	140.22	167.62	149.01	148.02	0.617
September .....	163.21	167.68	174.49	137.22	166.87	148.99	149.75	0.613
October .....	167.72	174.47	176.03	138.25	169.28	149.31	150.30	0.596
November .....	169.15	176.62	176.55	141.75	169.29	149.28	150.50	0.591
December .....	170.00	177.79	176.55	139.55	169.75	149.28	157.07	0.588

Formula used: Weighted average of relatives.

Source: Bureau of the Census and Statistics, Business Division.

The continuous trend of increasing prices in almost all goods and services beginning March caused a general uptrend in the consumer price index for the low income households in Manila. The biggest price increase was recorded in the month of July at 5.56 per cent followed by the month of October at 4.51 per cent. The per cent increase in the all-items index was primarily due to the rise in prices of food, shelter and clothing.

Because of the continuous rise in the price levels of major group indices which registered a total of 27.2 per cent increase between February and December, these price increases inversely resulted in a continuous decline of the purchasing power of the peso from ₱0.701 in February to ₱0.588 in December. This means that compared to five years back (1966=100), the worth of the peso has practically become half its value.

Presented in Table XXI.21 is the monthly consumer's price index for middle income families in Manila for the year 1971 with 1966 as the base year (1966=100).

The consumer price index average for all items for the month of January is 150.76; this rose to 154.15 in February and slightly declined for the succeeding two months. The decline registered in the prices of some goods and services account for this slight decrease.

Prices of fruits and vegetables decreased due to the seasonal supply of fresh fruits and vegetables.

In May, an upward trend in prices pushed the customer price index up. While this change is only 1.41 per cent, a 2.16 per cent rise was marked for the month of June. The heavy rains and transportation strikes were some of the factors that affected price changes. For the month of July, the abrupt increase of 9.68 per cent was the highest recorded for the whole year. The rise may be attributed to the opening of the school year which substantially increased house rentals and the price of major commodities due to the positive shift in the demand for these commodities.

For August and September, the increase in the consumer price index was brought about mainly by the rise in the index for food. The prices of food continued an upward trend for the months of October and November. This was primarily caused by the rise in the prices of cereals and bakery products. The increase in food index was 2.69 per cent for October and 3.81 per cent by November. The Christmas season contributed further to the increase that, in December, an all-year high for all items index of 170.72 was recorded. This increase in the all items index affected the purchasing power of the peso. The purchasing power was 0.663 for the month of January sank to as low as 0.566 in December.

## Stock Prices

Stock price index is a based-weighted arithmetic average of price relatives of stock price quotations of 50 companies (2 banks, 4 insurance companies, 14 commercial and industrial companies, 6 sugar centrals and 24 mining companies) listed in the Manila stock exchange. The weights are based on the value of shares traded.

In the stock market, prices sank to new bottom levels since 1965 as shown in Table XXI.22. This was due largely to the price inflation in the goods; partly to the dilution of demand as a result of the proliferation of stocks listed in the two exchanges, the Manila stock exchange and Makati stock exchange; and partly to the two per cent burden imposed on the stock transfer on sales.

From a stock price index of 239.7 per cent in 1970, stock prices moved down further by 45.2 per cent in 1971. Those which suffered big losses were mining and commercial and industrial companies which registered decreases of 48 per cent and 13.9 per cent respectively from 1970 to 1971.

TABLE XII.21—CONSUMERS PRICE INDEX FOR MIDDLE INCOME FAMILIES IN MANILA AND THE SUBURBS: JANUARY TO DECEMBER, 1971

(1966=100. For families with yearly income between ₱4,000.00 and ₱9,999.00)

Commodity	January	February	March	April	May	June	July	August	September	October	November	December
All Items	150.76	154.15	153.71	153.48	154.89	157.05	166.73	170.97	172.18	173.46	175.81 <sup>1/</sup>	176.72
Food	152.08	156.47	154.64	154.77	157.01	162.64	165.83	174.72	177.14	180.10	183.91	185.24
Cereals & bakery products	149.38	150.94	145.85	146.37	146.17	146.17	146.42	155.27	159.95	164.83	167.19	168.43
Meat, poultry, fish and other sea foods	154.23	154.35	157.84	159.21	162.30	168.61	169.32	175.59	178.66	179.10	180.00	178.28
Milk and eggs	153.17	154.12	154.89	155.39	156.97	157.94	161.60	163.56	160.44	159.49	157.38	159.37
Fruits and vegetables	168.08	161.70	150.34	146.40	149.49	174.19	177.15	202.52	208.77	225.09	223.71	222.36
Miscellaneous foods	159.97	162.02	160.65	160.55	164.13	168.25	176.63	184.47	185.72	184.79	182.71	187.90
Shelter	164.31	164.46	164.56	164.28	165.01	165.40	202.67	202.88	202.88	202.70	202.69	202.69
Utilities	120.47	120.47	120.72	120.97	120.91	120.91	120.29	117.59	117.73	118.42	119.24	119.17
Clothing	149.76	151.66	154.33	152.78	154.33	158.58	162.48	169.79	162.24	162.51	162.58	162.78
Men's wear	155.72	158.44	160.52	158.58	160.92	163.90	168.83	171.46	168.12	168.14	167.61	167.70
Women's wear	140.97	142.62	146.92	146.26	147.91	151.62	153.17	154.10	156.14	156.17	156.23	156.90
Children's wear	151.75	152.59	153.93	151.79	151.79	159.07	164.51	164.52	160.52	161.57	162.73	163.00
Health, Education and transportation	146.45	150.36	150.64	151.07	151.07	150.92	152.11	149.74	149.76	149.45	154.95	155.07
Health & Medical care	145.11	145.11	145.11	144.23	144.23	140.83	141.46	141.52	142.23	142.96	190.38	150.80
Education	140.17	148.70	149.30	150.56	150.56	151.37	153.84	154.00	154.35	153.58	164.83	164.85
Transportation and communication	154.71	154.71	154.71	154.71	154.71	154.85	154.71	148.18	147.50	147.28	144.95	145.03
Miscellaneous	140.34	145.74	147.61	145.89	146.87	148.94	147.63	149.50	149.35	149.50	148.48 <sup>1/</sup>	150.43
Household furniture & equipment	155.62	168.11	173.38	172.70	172.26	175.42	168.28	172.49	169.19	168.98	162.87	163.53
Household operations	122.76	131.01	131.78	128.04	132.59	134.27	134.21	134.09	136.89	137.73	137.08	139.73
Personal care	165.89	167.72	172.16	173.82	172.40	175.52	169.08	167.15	166.12	166.12	166.12	173.65
Reading & recreation	160.98	160.98	160.98	160.98	160.98	163.65	163.65	163.65	163.65	163.65	163.65	163.65
Other goods & services	125.82	129.94	130.70	127.66	128.04	127.33	131.47	136.67	135.89	135.80	135.80	135.70
Purchasing power of the peso	0.663	0.649	0.651	0.652	0.646	0.637	0.600	0.585	0.581	0.577	0.569	0.566

<sup>1/</sup> Changes made due to corrections.

Source: Bureau of the Census and Statistics, Business Division.

Table XII.22—STOCK PRICE INDEX IN MANILA 1961-1971

(1955=100)

Period	All items	Banks	Insurance	Commercial and industrial	Mining	Sugar
	(1)	(2)	(3)	(4)	(5)	(6)
1961	66.0	134.9	118.5	117.1	58.2	148.7
1962	73.9	136.3	107.5	118.2	67.2	150.8
1963	96.6	167.8	125.5	141.0	89.6	214.1
1964	99.3	201.1	125.5	130.1	94.1	219.6
1965	81.3	233.3	128.5	122.2	74.9	145.9
1966	137.4	234.8	143.3	124.7	139.2	115.2
1967	139.9	217.2	190.5	156.5	137.3	160.1
1968	173.2	269.4	154.8	208.6	167.9	219.3
1969	322.2	240.3	152.5	213.1	338.4	188.5
1970	239.7	217.8	146.4	146.5	253.2	176.3
1971	131.4	223.2	148.3	126.1	131.9	158.4
January	152.5	245.2	146.6	138.6	154.3	169.2
February	140.5	256.1	149.0	138.8	140.5	168.1
March	148.4	253.1	152.7	137.3	149.7	168.2
April	156.8	253.6	153.2	127.9	160.7	167.1
May	146.7	251.9	153.2	125.5	149.5	165.4
June	138.4	233.2	151.6	121.2	140.5	164.4
July	135.8	221.3	146.3	123.6	137.2	162.7
August	127.8	217.7	145.3	123.4	128.1	159.0
September	118.6	216.0	145.3	119.3	118.2	154.5
October	106.9	212.2	145.3	118.0	109.0	144.8
November	105.4	177.1	145.3	120.1	103.0	141.8
December	98.9	140.8	145.3	120.0	95.7	135.1

Source: Central Bank of the Philippines.

## CHAPTER XXII — FOREIGN TRADE

The scarcity of resources amidst the varied and insatiable human wants necessitates crossing territorial boundaries in search for goods that will satisfy or lead to the satisfaction of wants. No country is virtually self-sufficient to be able to answer the needs of its people by employing resources within the confines of its own territory. In fact, most developing countries have recognized the need for the expansion of their export trade, regardless of whatever development strategy they decide to employ. A study of the foreign trade situation of the developed countries would further show the dependence of these countries on foreign markets, whether as market for their goods or as the source of capital and consumer goods.

The Philippines like any other country with a limited land area, resources to be developed, and a fast growing population has to engage in trade with other countries for it to maintain and expand its economy. As such, she obtains most of her capital goods from other countries in the form of imports while she supplies a great bulk of raw materials to its export markets. Thus, it seems inevitable for the Philippines to develop her manufacturing industry and venture into the manufacture of import substitute goods without engaging in foreign trade. The growing realization of the importance of foreign trade may be further gauged from the emphasis laid on the expansion and diversification of our export products to offset high import costs as incorporated in the Four Year Development Plan.

An assessment of the country's foreign trade situation from 1899 to 1971 with particular emphasis on the nature of our foreign trade for the ten year period from 1962 to 1971 will be presented in this chapter from which its role in the development scheme may be ascertained. This may be viewed in the light of its adverse effects on the country's balance of payment position, on the employment situation, on the production and consumption habits of the people, and on the prices of goods and services.

### TREND AND NATURE OF PHILIPPINE FOREIGN TRADE, 1899-1970

#### Prewar Foreign Trade (1899-1941)

Total external trade entered into by the Philippines has considerably increased in value during the entire span of the period from 1899 to 1971 although at a fluctuating and erratic trend. This is roughly indicative of the country's increasing participation in the external market both as supplier and consumer of goods<sup>1</sup>.

In 1899, as shown in Table XXII.1, total trade of the country aggregated to ₱68.1 million, but at the turn of the century, the value of total trade increased by 40.53 per cent. The value of total trade further increased although in varying degrees until it reached ₱200 million level in 1912 when total trade was valued at ₱233.1 million. Within this period, declines in trade values of 11.25 per cent, 7.01 per cent and 2.75 per cent were exhibited between 1903 and 1904 and 1906 then 1907 and 1908, respectively. The rate at which our trade values increased in the first twenty years of the pre-war period differed widely, ranging from an increment of 44.86 per cent between 1917 and 1918 to a decline of 13.30 per cent between 1912 and 1913.

Trade values amounted to ₱601.1 million in 1920 or an increase of 29.69 per cent relative to the previous year's value of ₱463.5 million. However, this value declined sizeably by 32.14 per cent the succeeding year. In 1922, trade values declined further by 13.80 per cent bringing the value of total trade down to ₱351.6 million. However, in 1923, the value of total trade earned

<sup>1</sup>The relative increases in value, however, do not necessarily indicate the same rates of increase in trade participation in the world market nor the growing dependence of the Philippines on foreign markets, due to price fluctuations and changes in the peso value in the world market.

an increment of 18.46 per cent. Trade values increased at a moderate pace during the succeeding years until it surpassed the ₱600 million level in 1929 by 23.2 million. However, the value of our total trade declined then on, the trend extending until the recession of the depression period in 1935 when total trade was valued at ₱374.9 million. Despite the increases in total trade values after this worldwide calamity, the value of our external trade did not surpass the all time high level of ₱623.2 million in 1929 for total trade aggregated only to ₱593.5 million in 1941, which was the highest after the depression period.

The increasing value of our total trade is accruable to the increase in the value of our exports and imports for the same period. From 1899 to 1904, the value of imports exceeded the value of exports with the latter contributing an average of 46.88 per cent to total trade, thus realizing a yearly negative balance of trade. Trade relations during the next five years proved to be favorable as exports formed more than half, or an average of 53.14 per cent of the value of total trade. However, from 1910 to 1913 the value of imports again surpassed the value of exports by an average of about 6.16 per cent thus putting the trade against the country's favor. The negative trade margin for this period varied from ₱18.2 million in 1910 to ₱6.3 million in 1911. But, this was rather shortlived, for exports more than offset the value of imports from 1914 to 1941, except during the years 1919 and 1921 when negative trade margins of ₱11.0 million and ₱55.4 million were realized. Thus, even at the height of the depression period, the country had positive trade balances. The highest positive trade balance of ₱115.8 million was realized in 1937 when exports amounting to ₱333.9 million exceptionally formed 60.5 per cent of total trade.

Philippine foreign trade, during these years, may be said to be basically favorable to the country based on these figures. However, the nature of our external trade and its contribution to the country's GNP must be aptly considered before making any conclusion. The Philippine economy during that period was virtually controlled by the American market, in the sense that practically all the products the country sold or exported abroad (which were composed almost exclusively of raw materials or semi-finished products) found its way into the American market; while all our imports (which consisted mainly of finished goods and non-essential consumer items) came from the United States. Philippine foreign trade during this period was theoretically monopolized by the U.S. market, which hindered the industrial development of the country. After the war, it was inevitable that what emerged was a society that was oriented to imported goods and an economy which was completely dependent on another country. This continued even after independence was granted in 1946.

### Post-War Foreign Trade

The Philippines was completely isolated from the rest of the world during the second world war. From 1942 to 1944, not a single centavo worth of Philippine imports and exports filtered in or out of the country. In 1945, the country's total trade amounted only to ₱59.2 million of which ₱57.9 million or 97.80 per cent was in the form of imports. The year after, total trade climbed to ₱720.1 million. Although the value imports increased by 921.93 per cent, its proportion to total trade declined to 82.17 per cent. The value of total trade further increased during the next three years owing to increases in the value of our imports and exports. The value of imports reached as high as ₱1,137.4 million in 1949 while exports amounted to ₱511.7 million, thus giving rise to a total of ₱1,649.1 million. This is a decrease from the previous year's value of 7.08 per cent which resulted primarily from the decline in the value of our exports by 19.85 per cent. This decline also resulted in the decrease in the proportion of exports to total trade from 35.97 per cent during the previous year to 31.03 per cent.

In 1950, the value of total trade declined by 16.45 per cent as compared to the 1949 value. However, its composition greatly improved as the proportion of exports climbed to 48.29 per cent. This brought down the negative trade margin of ₱625.7 million to ₱47.0 million. Despite the expansion of our external trade in 1951, as manifested by an increase of almost 30 per cent in its value, external trade activities has not been favorable to the country, for the negative trade margin further widened to ₱127.5 million. In 1952, a bigger trade imbalance of ₱147.4 million was realized simultaneously with a contraction in the value of total external trade by 13.04 per cent, compared to the previous year's level.

The value of total trade steadily increased then on, except for a slight disruption in the trend in 1958 when total trade declined by 3.70 per cent from the past year's value of ₱2,104.1 million. The rates at which total trade increased ranged from as low as 0.35 per cent between 1968 and 1969 to as high as 83.07 per cent between 1961 and 1962; total trade rose to an exceedingly high level of ₱13,225.6 million in 1970 and finally to ₱15,556.2 million in 1971. However, this does not indicate a very sizable expansion in trade performance, owing to the change in the value of the peso in the world market as a result of the institution of the floating exchange rate in February, 1970, which eventually led to the change in the conversion rate used in valuing the country's external trade.

Table XXII.1—FOREIGN TRADE OF THE PHILIPPINES, 1909-1971  
(P.O.B. Value in Million Pesos)

Year	Total Trade	Imports	Exports	Balance of Trade - unfavorable + favorable	Year	Total Trade	Imports	Exports	Balance of Trade - unfavorable + favorable
1899	68.1	38.4	29.7	- 8.7	1935	374.9	171.1	203.8	+ 32.8
1900	95.7	49.7	46.0	- 3.7	1936	497.7	202.3	295.4	+ 95.1
1901	109.3	60.3	49.0	- 11.3	1937	557.0	218.1	338.9	+ 119.8
1902	124.0	66.7	57.3	- 9.4	1938	559.2	265.2	294.0	+ 28.8
1903	132.4	67.6	64.8	- 2.8	1939	560.9	245.1	315.8	+ 70.7
1904	117.5	59.2	58.3	- 0.9	1940	581.3	269.5	311.8	+ 42.3
1905	127.0	60.1	66.9	+ 6.8	1941	595.5	271.2	322.3	+ 51.1
1906	118.1	52.8	65.3	+ 12.5	1942-44	2/			
1907	127.1	60.9	66.2	+ 5.3	1945	59.2	57.9	1.3	- 56.6
1908	123.6	58.4	65.2	+ 6.8	1946	720.1	591.7	128.4	- 463.3
1909	132.0	62.2	69.8	+ 7.6	1947	1,553.8	1,022.7	531.1	- 491.6
1910	180.6	99.4	81.2	- 18.2	1948	1,774.8	1,136.4	638.4	- 498.0
1911	185.7	96.0	89.7	- 6.3	1949	1,642.1	1,137.4	511.7	- 625.7
1912	233.1	123.3	109.8	- 13.5	1950	1,377.8	712.4	665.4	- 47.0
1913	202.1	106.6	95.5	- 11.1	1951	1,790.5	959.0	831.5	- 127.5
1914	194.6	97.2	97.4	+ 0.2	1952	1,557.0	852.2	704.8	- 147.4
1915	206.2	98.6	107.6	+ 9.0	1953	1,695.9	894.7	801.2	- 93.5
1916	230.9	91.0	139.9	+ 48.9	1954	1,727.5	903.3	824.2	- 79.1
1917	322.8	131.6	191.2	+ 59.6	1955	1,911.2	1,072.7	838.5	- 234.2
1918	467.6	197.2	270.4	+ 73.2	1956	1,364.6	1,019.2	345.4	- 73.8
1919	463.5	237.3	226.2	- 11.1	1957	2,104.1	1,242.8	861.3	- 381.3
1920	601.1	298.9	302.2	+ 3.3	1958	2,026.2	1,106.6	919.6	- 187.0
1921	407.9	231.7	176.2	- 55.5	1959	2,053.0	1,041.9	1,011.1	- 30.8
1922	351.6	160.4	191.2	+ 30.8	1960	2,319.9	1,249.0	1,070.9	- 178.1
1923	416.5	175.0	241.5	+ 66.5	1961	2,325.8	1,244.3	1,081.5	- 162.8
1924	486.7	216.0	270.7	+ 54.7	1962	4,258.0	2,267.7	1,990.3	- 277.4
1925	537.3	239.5	297.8	+ 58.3	1963	5,344.6	2,487.1	2,857.5	+ 370.4
1926	512.4	238.6	273.8	+ 33.2	1964	6,153.1	3,106.7	3,046.4	- 60.3
1927	542.8	231.7	311.1	+ 79.4	1965	6,335.6	3,235.8	3,099.8	- 136.0
1928	579.4	269.3	310.1	+ 40.8	1966	6,821.2	3,338.1	3,483.1	+ 25.0
1929	623.2	294.1	328.9	+ 34.6	1967	7,616.8	4,139.9	3,476.9	- 663.0
1930	512.5	246.2	266.3	+ 20.1	1968	8,429.2	4,677.0	3,752.2	- 924.8
1931	406.3	198.4	207.9	+ 9.5	1969	8,458.5	4,624.1	3,834.4	- 789.7
1932	395.5	158.8	200.7	+ 41.9	1970	13,225.6	6,682.5	6,543.1	- 139.4
1933	355.9	134.7	221.2	+ 86.5	1971	15,556.2	8,058.1	7,498.1	- 560.0
1934	399.7	167.2	232.5	+ 65.3					

2/ Japanese occupation.

Source: Handbook of Philippine Statistics and Foreign Trade Statistics of the Philippines, Bureau of the Census and Statistics.

In spite of the expansion of our foreign trade activities, negative trade balances were generally realized throughout the post-war period except in 1963 and 1966 when trade balances amounting to ₱370.4 million and ₱25 million, respectively, turned in the country's favor. The highest trade imbalance aggregating to ₱924.8 million was recorded in 1968. However, this margin declined to ₱789.7 million in 1969 and to much lower gap of ₱139.4 million in 1970. The latter resulted out of the 70.64 per cent increase in exports as compared to an increase of 44.51 per cent in imports. However, in 1971 in spite of the 17.62 per cent increase in the value of total trade, a ₱560 million negative trade margin was realized due to the rise in value of our imports to ₱8,058.1 million. Thus, while the floating exchange rate was instituted to discourage imports and encourage exports these figures show that this was not so during the first two years. However, considering that purchases of imported commodities which have been deferred can not be quantitatively ascertained, the possibility of a hindered expansion in imports is not very remote.

### FOREIGN TRADE DURING THE LAST DECADE (1962-1971)

The country's foreign trade performance during the last decade may be characterized by a generally increasing trend in the value of exports and imports. The varying degrees at which these two components of external trade increased primarily account for the increase in total trade and the erratic trend in the country's balance of trade position. The annual increase in imports ranged from a meager decrease of 1.13 per cent in 1969 to an increase of 44.57 per cent in 1970, while the rate at which exports increased varied from as low as 1.57 per cent in 1967 to as high as 70.64 per cent in 1970. However, on the average, exports increased by 17.70 per cent annually while imports showed an average rate of increase of 15.84 per cent, thus giving rise to an average increase of 16.44 per cent in the value of total trade.

The increase in the value of imports is indicative of the inability of the economy to meet present demands. Although it is quite understandable that self-sufficiency is not yet attainable, as evidenced by the extent of imports and exports made by what is considered as developed countries, imports, especially those of consumer items and luxury goods, ought to be substantially minimized and efforts should be geared at producing import substitute goods to save foreign exchange. Furthermore, considering the negative effect of imports on our balance of trade and balance of payments position, it is quite logical that imports should be restricted and minimized to include only those goods which would further stimulate productive activities in the country; e.g., capital goods such as machinery and equipment. Thus, legislative measures are passed imposing taxes on luxury and consumer items aimed primarily to discourage the further importation of non-capital goods.

On the other hand, while our export trade has been expanding, the increasing share of primary products to total exports has been alarmingly high. Our leading export items consist largely of primary products, as shown in Table XXII.2. This has caused considerable concern and worries lately owing to the possible consequences of an astoundingly high proportion of primary exports to the resources of the country. Many people contend that at the rate we are harnessing our resources, time will come when it will be depleted to such an extent that future generations will be deprived of what they should otherwise enjoy. It is, however, contradictory to note that some countries employ the strategy of high primary exports in their development schemes. Among these countries are Thailand, Trinidad and Tobago, Jamaica, Malaysia, Iran, Nicaragua, Venezuela, Ivory Coast, Iraq and Zambia.<sup>1</sup> It may therefore be inferred that dangers of depletion may be minimized to abate this consequence. This would entail the employment of proper means of effectively utilizing our resources and of wise conservation measures.

Philippine export trade is further aggravated by the relatively low price of primary exports in the world market (owing to the lower cost of producing these products); and by the problem of a limited market. The United States hold on our exports due to the Laurel-Langley agreement poses the disadvantage of not being able to find alternative markets offering higher prices for our products, thus resulting to less foreign exchange earnings.

A more comprehensive discussion of the country's import and export trade are presented in the succeeding sections which are aimed at giving an insight into the actual nature of the country's foreign trading.

TABLE XXII.2— VALUE OF PRINCIPAL EXPORTS OF THE PHILIPPINES: 1962 TO 1971

Commodity	(Value in million pesos)											
	1971			1970			1969			1968		
	Rank	FOB Value	Per cent of total exports	Rank	FOB Value	Per cent of total exports	Rank	FOB Value	Per cent of total exports	Rank	FOB Value	Per cent of total exports
<b>TOTAL</b>		7,498.10	100.00		6,543.13	100.00		3,834.38	100.00		3,752.25	100.00
Centrifugal sugar	1	1,387.82	18.51	2	1,064.77	16.27	2	990.70	15.41	3	503.37	13.42
Logs and lumber	2	1,301.87	17.36	1	1,466.91	22.42	1	961.49	25.08	1	891.65	23.76
Copper concentrates	3	966.23	12.88	3	898.29	13.73	3	443.78	11.57	5	296.19	7.90
Copra	4	679.93	9.07	5	476.04	7.28	4	383.49	10.00	2	529.91	14.12
Coconut oil, crude	5	643.89	8.59	4	569.14	8.70	5	210.27	5.48	4	313.85	8.36
Pineapple in syrup	6	199.52	2.13	7	122.12	1.87	10	42.35	1.11	10	36.16	0.97
Flywood ordinary	7	152.08	2.03	6	149.02	2.28	6	93.36	2.44	7	112.34	2.99
Decolcated coconut	8	137.12	1.83	8	105.99	1.61	7	60.94	1.59	6	119.78	3.19
Abaca fibers, unmanufactured	9	82.94	1.11	9	84.51	1.29	8	55.43	1.44	9	48.45	1.29
Iron ore	10	67.43	0.89	10	75.32	1.15	9	51.95	1.35	8	50.60	1.35
Others		1,919.27	25.60		1,531.42	23.40		940.62	24.53		849.95	22.65
<b>TOTAL</b>		3,423.14	100.00		3,099.84	100.00		3,046.40	100.00		2,857.47	100.00
Centrifugal sugar	3	488.04	14.26	3	557.55	17.99	1	597.30	19.61	2	580.30	20.31
Logs and lumber	1	798.94	23.34	2	598.94	19.32	3	558.13	18.32	3	558.27	19.54
Copper concentrates	5	232.25	6.79	5	150.13	4.84	5	129.67	4.26	5	114.70	4.01
Copra	2	604.52	17.66	1	699.64	21.28	2	592.84	19.46	1	618.71	21.55
Coconut oil, crude	4	297.78	8.70	4	260.49	8.40	4	232.94	7.64	4	186.28	6.58
Pineapple in syrup	10	34.47	1.01	10	35.27	1.14	10	28.29	0.93	10	7.76	0.27
Flywood ordinary	6	83.70	2.45	8	66.99	2.16	7	86.04	2.82	8	56.50	1.98
Decolcated coconut	8	72.03	2.10	7	81.62	2.63	8	74.85	2.46	7	69.93	2.45
Abaca fibers, unmanufactured	7	76.99	2.25	6	95.53	3.08	6	119.67	3.93	6	114.72	4.01
Iron ore	9	47.88	1.39	9	45.06	1.45	9	42.12	1.38	9	11.57	0.41
Others		666.54	20.05		549.02	17.71		584.55	19.19		538.74	18.85

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines, 1962 to 1971.

## PHILIPPINE EXPORTS

Total Philippine exports consist of exports of national produce (domestic exports); and export of goods previously imported (re-exports). The latter refers to commodities originally imported and later exported to other countries but did not undergo any material transformation, (otherwise they would be considered as domestic exports).

In the last ten years (1962 to 1971) Philippine export trade has considerably progressed, increasing at an average of 27.5 per cent annually, from a level of ₱2.0 billion in 1962 to ₱7.5 billion in 1971. The trend in export trade during this period was characterized by a steady growth, with 1970 exports valued at ₱6.5 billion, registering the highest percentage increment of 71.05 per cent, over the 1969 exports of ₱3.8 billion. This growth is an encouraging indication that Philippine products are gaining recognition in the world market.



Moreover, trade has been carried out in diversified directions. Where majority of the products before either came from or went to the United States, the direction of trade has shifted to European countries, namely, Netherlands, United Kingdom, and Federal Republic of Germany; and to Southeast Asian countries like Japan, South Korea, and Taiwan (Formosa).

However, despite this growth, the quality of export commodities has not advanced from its prime stage. Export products still predominately consist of raw or semi-processed non-durable products such as logs and lumber, centrifugal sugar, copra, copper concentrates, crude coconut oil, iron ore, ordinary plywood, desiccated coconut, unmanufactured abaca fibers, and pineapple in syrup.

## **Top Export Products**

### *Logs and Lumber*

The rich forests of the Philippines is one of its most valuable resource for it provides both an adequate supply of wood and wood products for local needs and a continuous source of foreign exchange.

Among the different forest products the most popular or widely demanded is Lauan which is internationally known as "Philippine Mahogany". This product is preferred to those supplied by Indonesia, another heavy log exporter, because of its superior quality. It is now widely used as a covering of finished plywood since it does not peel off under any extreme condition.

Except for declines in 1964 (.03 per cent) and in 1971 (11.25 per cent), exportation of logs and lumber treaded upward. In 1970, logs and lumber earned ₱1.5 billion worth of foreign exchange, the highest during the ten year period.

Manufactures of forest products such as ordinary plywood also find its way in the export market. Plywood ranks seventh among the main exports. It has positively contributed to the country's foreign exchange, and being a growing industry, it is expected to further boost our foreign exchange receipts. Exportation of plywood brings in more dollars than wood in the raw form since the manufacture of plywood entails a higher value added, thereby requiring higher prices in the world market. More than ever, owing to the impending decline in the supply of forest products, there is a need to expand and develop the plywood industry. This impending decline is apparently caused by the indiscriminate cutting of trees. The rate and manner loggers had been cutting trees has alarmed the government a lot that, to abate denudation and ensure the perpetuation of forest species, reforestation and replanting programs are being strictly implemented.

The development of the plywood industry has been remarkable during the last ten years as shown by a 992.58 per cent increase in exports. In spite of the decreases of 22.61 per cent and 16.89 per cent in 1965 and 1969 respectively, the succeeding years managed to recoup these losses in foreign exchange as the value of exported plywood rose to a record high of ₱152.08 million in 1971.

### *Centrifugal Sugar*

The sugar industry is one of the leading economic activities in the country today. Its expansion has been largely favored by internal and external circumstances. In the local scene, the implementation of the Land Reform Code prompted farmers to shift from the production of rice and corn to sugar. This situation was further stimulated by prevailing high world market prices for sugar which encouraged farmers to increase production. These led to increments in supply, resulting to the availability of more sugar for shipment to other countries.

The value of sugar exported in the last decade formed an average of 18.02 per cent of total exports. During the first two years of the period under review, centrifugal sugar ranked second among the principal exports. In 1964, it gained the number one position, but as the value of exported sugar declined, it maintained only the third place until 1968. Prospects of regaining the first position grew with the expansion in export earnings realized from sugar during the succeeding years. In 1971, as the value of sugar exports reached an all time high of ₱1,387.82 million, sugar became the country's number one export again.

### *Coconut Products*

Exports of coconut products consists of copra, desiccated coconut and crude coconut oil which are all by-products of the tropical tree commonly called "Tree of Life". Of these by-products, copra is the most widely exported based on the figures presented in Table XXII.2. It was the country's main export product in the first 2 years of the period under study, ₱263.44 million in 1962 and ₱618.71 million in 1963, but it was relegated to the fourth position in 1970 and 1971 with exports valued at ₱476.04 million and ₱679.93 million, respectively. This decrease in exportation is attributed to the failure to control the disease in coconuts called "cadang-cadang" or yellow mottle, and the inconvenience of transporting copra, (it is bulky and exporters prefer coconut oil which could be easily loaded in tanks).

Coconut oil is rapidly being absorbed in the world market. The increase of 747.88 per cent in 1963 made coconut oil the number four export product which it consistently maintained up to 1967. An increase of 32.68 per cent in 1968 pushed it further to the third position but despite upward tendencies during the succeeding years, it was committed to the fifth place in 1970 and 1971 with exports valued at ₱569.14 million and ₱643.90 million, respectively.

High world demand for fats and oils have more or less stabilized its prices at comparatively high levels. Furthermore, the "opening" of the freight rate of coconut oil by the shipping conference to the U.S. West Coast in early 1962 had considerably lowered the freight rate for coconut oil. The decision of the shipping conference regarding the shipping cartel which controls foreign shipping, put a stop to the fixed or predetermined freight rates, thus allowing for economical shipping of the product.

Exportation of desiccated coconut suffered violent fluctuations during the period under study. From a level of ₱12.02 million in 1962, it steadily rose to ₱81.62 million in 1965. The year 1966 and 1967 saw declines in export earnings by 11.75 per cent and 2.57 per cent, respectively. In 1968 exports was recorded at ₱119.78 million, but this sharply diminished by 49.12 per cent the following year. In 1971 it managed to escalate to a record high of ₱137.12 million.

The increasing demand for coconut and its by-products in the international market motivated the creation of the Joint Coconut Commission of the Philippines and Indonesia, two of the world's largest exporters of coconut products. This venture aims at elevating the positions of these countries in world trade via copra exportation and at expanding local production through close consultation and cooperation in marketing and pricing practices.

### *Base Metals*

Among the base metals exported copper and iron stand out. Although the yield of copper deposits in the country are of inferior quality compared to the ones found in other countries, it has acquired world importance, proof of which is the continued increment in export earnings. Local and international demand for copper is increasing because of the increase in its uses in each of the stages in the industrialization process.

This led it to emerge as the country's third export product in 1971 as total exports amounted to ₱966.23 million. During the entire span of ten years, it decreased only in 1967 when exports amounted to ₱202.76 million. This was a decline of 12.70 per cent from the value of exports in 1966, ₱232.25 million, which is supposedly due to the lack of ocean liners in transporting the product.

Except for decreases of 37.76 per cent in 1963, 1.09 per cent in 1967 and 10.48 per cent in 1971, exportation of iron ore maintained a slow and steady increase. The main draw back of this industry to the country is that it is shipped to other countries in raw form; i.e., iron ore. The establishment of pig-iron smelter which is sufficiently large to absorb great volumes of raw materials would enable the country to export iron on a commercial basis.

*Abaca*

Abaca or "Manila Hemp" is an indigenous product of the Philippines. The trend in the exportation of abaca has been fluctuating. It registered the highest values of ₱114.71 million and ₱119.67 million in 1963 and 1964, respectively. These values significantly decreased until 1968 as it plunged to a record low of ₱48.45 million. Although the value of exports from this product rose the following years, it failed to retrieve these losses, reaching only ₱82.94 million in 1971.

The above-par qualities of abaca include its strength and resistance to salt water, and its ability to float, that it is often dubbed as the "Queen of Marine Cordage". Despite these qualities, the industry incurred irredeemable losses in exports which is mainly due to the decline in production as a result of the infestation of mosaic disease in the plant and the stiff competition posed by synthetic fibers.

*Pineapple in syrup*

Pineapple plantations are scattered all over country, but the largest area of approximately 6,000 hectares which yields around 90,000 metric tons per year is concentrated in Bukidnon. (The harvest are processed and packaged in Misamis Oriental).

This product shows bright prospects in the foreign market. From 1962 to 1969 exports were valued at less than ₱50 million but towards the end of the period under study, exports tremendously rose to ₱122.12 million in 1970 and finally to ₱159.52 million in 1971.

**Main Direction of Exports**

Philippine export trade is dominated by the United States. During the period under study it absorbed an average of 46.35 per cent of total exports. The products absorbed by the United States predominantly consist of centrifugal sugar and coconut by-products. In 1965, products which reached American shores decreased by 1.98 per cent and again by 1.69 per cent in 1969. However, these decreases were negligible in proportion to its export share in Philippine trade.

Japan ranks second to the United States as the country's main trading partner. The purchases made by Japan during the period under study averaged 30.25 per cent. Japanese markets are the heavy purchasers of Philippine Mahogany and copper concentrates, which are basically raw materials used as inputs in the manufacture of other goods.

The other outlets for Philippine goods include European markets such as Netherlands, Federal Republic of Germany, and United Kingdom. In 1962, Netherlands purchased 6.02 per cent of total Philippine exports, ranking third to the United States. It maintained its status up to 1971 in spite of the fluctuations in the value of exports to that country, the lowest value ₱99.35 million having been recorded in 1964. Exportations to the Federal Republic of Germany was highest in 1971, valued at ₱281.01 million.

United Kingdom absorbed a high value of Philippine exports in 1971 valued at ₱127.07 million. This was an actual gain of 132.56 per cent from the value of ₱54.64 million in 1970.

Three Asian countries, namely, Republic of Korea, Republic of China and Hongkong, count among the ten leading export trade partners of the country. The improvement in trade relations with Asian countries is encouraging for both parties. While it means foreign exchange receipts for the Philippines, it poses advantages to the lower freight costs thus resulting in relatively lower over-all import costs of products as compared to importing the same products from more distant countries.

## DIRECTION OF PHILIPPINE EXPORTS

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TABLE XXII.3—MAIN DIRECTION OF PHILIPPINE EXPORTS, 1962 to 1971  
(Value in million pesos)

Country	1971			1970			1969			1968			1967		
	Rank	FOB Value	Per cent to total	Rank	FOB Value	Per cent to total	Rank	FOB Value	Per cent to total	Rank	FOB Value	Per cent to total	Rank	FOB Value	Per cent to total
<b>Total</b>		<b>7,498.10</b>	<b>100.00</b>		<b>6,543.13</b>	<b>100.00</b>		<b>3,834.38</b>	<b>100.00</b>		<b>3,752.25</b>	<b>100.00</b>		<b>3,476.86</b>	<b>100.00</b>
United States	1	3,183.44	42.46	1	2,827.85	43.22	1	1,676.08	43.71	1	1,704.86	45.44	1	1,552.63	44.65
Japan	2	2,458.22	32.78	2	2,440.06	37.29	2	1,432.74	37.36	2	1,193.59	31.81	2	1,125.91	32.38
Netherlands	3	413.20	5.51	3	248.94	3.81	3	152.70	3.98	3	181.21	4.83	3	218.68	6.29
Federal Republic of Germany	4	281.01	3.75	5	146.14	2.23	5	73.05	1.91	4	95.09	2.54	4	86.88	2.50
Republic of Korea	5	169.15	2.26	4	173.75	2.65	4	98.84	2.58	5	86.55	2.31	5	71.99	2.07
Republic of China	6	128.38	1.71	6	117.46	1.80	6	67.81	1.77	6	70.79	1.89	6	54.75	1.58
United Kingdom	7	127.07	1.70	8	54.64	0.83	9	26.38	0.69	10	26.80	0.71	7	50.87	1.47
Hong Kong	8	99.42	1.32	7	89.88	1.37	7	48.53	1.27	9	27.41	0.73	10	21.37	0.62
Sweden	9	36.83	0.49	10	29.84	0.46		10.51	0.27	8	30.01	0.80	9	27.54	0.79
Italy	10	36.02	0.48		13.60	0.21	10	16.14	0.42		12.12	0.32		16.82	0.48
Canada		33.06	0.44		19.28	0.29		14.16	0.37		10.25	0.27		8.38	0.24
Spain		24.69	0.33	9	40.50	0.62	8	26.98	0.70		19.06	0.51		12.70	0.38
Denmark		16.62	0.22		21.13	0.32		11.94	0.31		18.87	0.50		17.21	0.49
Switzerland		6.97	0.09		24.28	0.37		10.78	0.28	7	36.26	0.97	8	29.67	0.85
Others		484.02	6.46		255.78	3.91		167.74	4.38		239.38	6.37		181.45	5.21
<b>Total</b>		<b>3,423.14</b>	<b>100.00</b>		<b>3,099.84</b>	<b>100.00</b>		<b>3,046.40</b>	<b>100.00</b>		<b>2,897.47</b>	<b>100.00</b>		<b>1,990.35</b>	<b>100.00</b>
United States	1	1,508.63	44.07	1	1,485.05	47.91	1	1,515.06	49.73	1	1,404.13	48.44	1	1,098.37	55.18
Japan	2	1,068.56	31.22	2	809.89	26.13	2	747.08	24.52	2	726.76	25.43	2	468.94	23.56
Netherlands	3	276.38	8.08	3	299.48	9.66	3	99.35	3.26	3	247.42	8.65	3	119.77	6.02
Federal Republic of Germany	4	155.09	4.53	4	115.60	3.73	4	81.00	2.66	4	158.14	5.53	4	109.33	5.49
Republic of Korea	5	64.57	1.89	7	37.16	1.20	7	30.12	0.99	9	22.24	0.78	5	38.73	1.94
Republic of China	6	49.64	1.45	5	45.49	1.47	5	48.64	1.60	6	39.47	1.38	7	21.64	1.09
United Kingdom	10	27.77	0.81	8	33.10	1.07	6	10.96	0.36	5	40.64	1.42	6	27.92	1.40
Hong Kong		17.04	0.50		12.25	0.39		14.38	0.47		14.48	0.51		14.69	0.74
Sweden	7	35.95	1.05	6	42.62	1.37		11.51	0.38	8	25.92	0.91	8	17.42	0.87
Italy		16.46	0.48	10	27.80	0.90	8	24.88	0.82	7	29.89	1.05		13.86	0.70
Canada		8.64	0.25		9.03	0.29		9.00	0.29		4.44	0.15		3.32	0.17
Spain		27.62	0.81		14.61	0.47		18.28	0.60		13.04	0.45	9	17.43	0.87
Denmark	9	30.54	0.89	9	32.41	1.04	10	21.55	0.71	10	21.11	0.74	10	14.81	0.74
Switzerland	8	35.99	1.04		11.12	0.36	9	23.77	0.78		17.64	0.62		2.19	0.11
Others		110.66	3.23		124.23	4.01		360.82	11.84		92.15	3.24		61.93	3.12

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines, 1962 to 1971.

## PHILIPPINE IMPORTS

Imports refer to all goods entering the Philippines properly cleared through customs or remaining under customs control, whether the goods are for direct consumption, for warehousing or for further processing.

Philippine imports mainly consist of capital goods such as: machinery other than electric, mineral fuels, lubricants and related materials, transport equipment; base metals; cereals and cereal preparations; electric machinery, apparatus, and appliances; explosives and miscellaneous chemical materials; textile fibers and waste silk, dairy products, eggs and honey, and textile yarn, fabrics and made-up articles.

Philippine import trade from 1962 to 1971 exhibited an increasing trend except for a slight decline of 2.13 per cent in 1969. From a level of ₱2,267.71 million in 1962 it rose to ₱8,058.12 million in 1971 or an actual gain of 255.34 per cent. The decline in imports in 1969 worked favorably for the economy for it meant that less dollars were drawn out of the country's treasure vaults. However, this was rather brief because in 1970, the value of total imports substantially increased by 44.51 per cent, the highest annual increment during the decade. This was primarily due to the devaluation of the peso in February, 1970 as result of the institution of the floating exchange rate system by the Central Bank to discourage imports and enhance exports.

Table XXII.4.—VALUE OF TEN LEADING PHILIPPINE IMPORTS: 1962 - 1971

(FOB Value in million pesos)

Commodity	1971			1970			1969			1968			1967		
	Rank	FOB Value	Per cent to total imports	Rank	FOB Value	Per cent to total imports	Rank	FOB Value	Per cent to total imports	Rank	FOB Value	Per cent to total imports	Rank	FOB Value	Per cent to total imports
Total imports		8,058.12	100.00		6,682.49	100.00		4,624.14	100.00		4,677.00	100.00		4,139.92	100.00
Machinery other than electric	1	1,657.52	20.57	1	1,406.49	21.05	1	999.53	21.62	1	951.41	20.34	1	845.56	20.42
Mineral fuels, lubricants & related materials	2	908.17	11.27	3	688.69	10.31	4	413.94	8.95	4	405.30	8.66	4	363.85	8.79
Transport equipment	3	697.44	8.65	4	554.33	8.29	3	455.30	9.85	2	508.02	10.86	2	431.91	10.43
Base metals	4	570.43	7.08	2	793.53	11.87	2	459.67	9.94	3	430.02	9.19	3	408.89	9.88
Cereals and cereal preparations	5	518.66	6.44	9	211.44	3.16	6	174.58	3.78	8	178.57	3.82	5	351.20	8.48
Electric machinery apparatus and appliances	6	488.84	6.06	5	402.06	6.02	5	266.51	5.76	5	269.45	5.76	6	194.69	4.70
Explosives & miscellaneous chemical materials	7	339.59	4.21	6	281.25	4.21	8	158.95	3.44		147.60	3.16	7	131.82	3.18
Textile fibers and waste silk	8	295.54	3.67	7	229.43	3.43	10	150.79	3.26	7	184.68	3.95		111.88	2.70
Chemical elements and compounds	9	275.19	3.41	8	214.79	3.21		126.50	2.74		126.46	2.70		103.82	2.51
Dairy products, eggs and honey	10	258.70	3.21		191.29	2.86	7	165.83	3.58	10	151.76	3.24	8	126.45	3.05
Materials and articles for manufacture & re-export		219.23	2.72	10	193.21	2.89		123.07	2.66		106.83	2.28	10	116.48	2.81
Textile yarn, fabrics & made-up articles		176.97	2.20		159.64	2.39	9	151.38	3.27	6	187.63	4.01	9	122.88	2.97
Metal manufactures		205.89	2.56		182.41	2.73		107.10	2.32	9	166.39	3.56		104.70	2.53
Returned goods and special transactions		47.61	.59		45.12	.67		35.01	.76		19.00	.41		5.58	.14
Other <sup>1/</sup>		1,398.34	17.35		1,128.81	16.89		835.98	18.08		843.88	18.04		720.21	17.40
		1966			1965			1964			1963			1962	
Total imports		3,398.12	100.00		3,235.83	100.00		3,106.71	100.00		2,487.06	100.00		2,267.71	100.00
Machinery other than electric	1	583.94	17.18	1	512.40	15.84	1	537.91	17.31	1	453.45	18.23	1	299.37	13.20
Mineral fuels, lubricants & related materials	4	334.08	9.83	5	284.13	8.78	5	269.38	8.67	3	239.85	9.64	3	218.76	9.65
Transport equipment	2	380.64	11.20	4	302.24	9.34	2	314.90	10.14	2	253.24	10.18	2	223.05	9.84
Base metals	3	338.83	9.97	3	317.85	9.82	3	298.12	9.60	4	218.72	8.79	4	195.64	8.63
Cereals and cereal preparations	5	198.02	5.83	2	379.99	11.74	4	270.67	8.71	5	129.39	5.20	7	118.97	5.25
Electric machinery apparatus and appliances	6	161.46	4.75	6	196.52	6.07	6	164.06	5.28	6	120.88	4.86	10	83.59	3.69
Explosives & miscellaneous chemical materials		111.85	3.29	9	95.02	2.94		90.84	2.92	10	78.13	3.14		71.19	3.14
Textile fibers and waste silk		135.82	4.00		87.91	2.72	10	94.08	3.03	7	107.54	4.32	5	138.72	6.12
Chemical elements and compounds		90.92	2.68		84.20	2.60		79.51	2.56		64.37	2.59		53.81	2.37
Dairy products, eggs and honey	9	116.19	3.42	8	111.75	3.45	9	96.66	3.11		77.96	3.14	9	94.68	4.17
Materials and articles for manufacture & re-export	8	124.72	3.67	7	132.99	4.11	7	119.61	3.85	8	95.46	3.84		-	-
Textile yarn, fabrics & made-up articles	10	115.69	3.40		60.76	1.88		77.43	2.49	9	89.49	3.60	6	135.97	5.99
Metal manufactures		90.97	2.68	10	91.43	2.82	8	101.17	3.26		72.91	2.93		71.89	3.17
Returned goods and special transactions		1.72	.05		2.01	.06		2.24	.07		29.24	1.17	8	100.78	4.44
Other <sup>1/</sup>		613.27	18.05		576.63	17.82		590.13	18.99		456.33	18.35		461.29	20.34

<sup>1/</sup> Includes all other imports not indicated in the table.

Source: Bureau of the Census and Statistics, Philippine Foreign Trade Statistics, 1962 to 1971.

However, imports are inevitable in the development of domestic industries. For the economy to go on functioning smoothly, it has to forego some of its foreign exchange reserves to purchase import goods. The adverse effects of the floating exchange rate system is shown by the unprecedented increases of more than 50% in 1970 in the importation of the following commodities: mineral fuels, lubricants and related materials, 66.37 per cent; base metals, 72.63 per cent; electric machinery, apparatus and appliances, 50.86 per cent; explosives and miscellaneous chemical materials, 76.94 per cent; textile fibers and waste silk, 52.15 per cent; and chemical elements and compounds, 69.79 per cent.

## Top Import Items

### *Machinery other than Electric*

A prominent characteristic of developing economies is the heavy importation of machinery and equipment which are necessary inputs of major industries. Being a developing country, the Philippines imports a great deal of non-electrically driven machinery. Imports of this commodity averaged 18.58 per cent during the previous decade.

In 1962, import receipts stood at ₱229.37 million forming 13.20 percent of total imports. This increased to ₱537.91 million in 1964 with its share widening to 17.31 per cent. It experienced a drop of 4.74 per cent in 1965, but this was negligible considering that it still contributed the highest share of 15.84 per cent to total imports. The value of imports the following years indicated an uptrend with the biggest gain of 40.72 per cent realized in 1970. In 1971 total import receipts incurred from purchases of machinery other than electric were valued at ₱1,657.52 million.

### *Mineral fuels, lubricants and related materials*

The increased use of fuel as power generator in main industries is indicative of the growing industrialization of the country. Since oil has not yet been successfully unearthed, domestic requirement for petroleum had to be shipped from foreign countries.

Demand for mineral fuels have been increasing due to the expanded rated capacities of the four oil refineries in the country. Aside from catering to the needs of the industrial sector through the production of refined petroleum products, they have branched out from mainly refining crude oil to processing petroleum derived chemicals for use in the manufacturing sector.

Importations of mineral fuels demonstrated a steady upswing. From a level of ₱218.76 million in 1962, it increased to ₱334.08 million in 1966 increasing at an average of 10.54 per cent during the five year period. During the second half of the decade the increase in imports averaged 29.92 per cent. It emerged as the second main import item in 1971 with imports valued at ₱908.17 million.

### *Transport equipment*

Simultaneous with the completion of concrete avenues which made accessible the once remote places, and the expansion of the road, rail, and air transport network came an increased demand for transportation vehicles. Thus, not being available locally, imports of transport equipment steadily maintained its rank as the second heavily imported commodity for quite a number of years: in 1962 with ₱223.05 million; 1963, ₱253.24 million; 1964, ₱314.90 million; 1966, ₱380.64 million; 1967, ₱431.91 million; and in 1968, ₱508.62 million. In 1971 in spite of the 25.82 per cent increase in imports (from ₱554.33 million in 1970 to ₱697.44 million in 1971) it was committed to the third berth. Attempts are being made to locally manufacture and assemble transport equipment. If these attempts will be successful and locally manufactured and assembled transport equipments will gain acceptance in the local market, importation of these commodities will be sizeably reduced.

### ***Base Metals***

Base metals are considered the handmaid of progress. They are the materials essential in the manufacture of heavy machinery and equipment. The significance of base metals such as copper and iron and steel may be inferred from the proportionate share of this commodity to total imports which averaged 9.48 per cent during the period under study. It ranked fourth among the principal imports in 1962 and 1963, with purchases of base metals valued at ₱195.64 million and ₱218.72 million, respectively. With foreign purchases valued at ₱298.12 million in 1964 or an increment of 36.31 per cent from the previous year's imports, it stepped up to third place in the import ladder. It maintained the third rank until 1968 when imports was valued at ₱430.02 million. In 1969 and 1970 it landed as the second main import item and as the value of imports increased to ₱459.67 million and ₱793.53 million, respectively. However, it was relegated to the fourth place in 1971 due to a sharp decrease of 28.11 per cent.

### ***Cereals and cereal preparations***

Cereals form a major portion of the Filipino diet. Thus, with the increase in population, there inevitable results an increase in the demand for cereals. Domestic production however, falls short of domestic requirements; hence, to fill the demand for this commodity importations have to be resorted to.

Mixed trends in the importation of these commodities roughly indicate the country's attempts to meet local needs. In 1962, total foreign purchases of cereals was valued at ₱118.97 million. This climbed to ₱379.90 million in 1965, representing 11.74 per cent of total imports, thus emerging as the second major import for the year. A cut of 49.15 per cent in 1968 made it step down to the eighth position. Despite the increase of 21.11 per cent in 1970, it plunged to the ninth place. In 1971 the tremendous increase of 145.30 per cent, which cost the country ₱518.66 million worth of foreign exchange, pushed it to the fifth place.

### ***Electric Machinery***

The Manila Electric Company (Meralco) imported a large portion of electrical apparatus, parts and equipment for its expansion program.

In 1962 purchases of electrical machinery was the tenth among the principal imports amounting to ₱83.53 million. An addition of 44.62 per cent in 1963, resulting to purchases amounting to ₱120.88 million, made it land on the sixth berth. During the next four years, its relative importance in the import scene has been more or less stable having occupied the sixth post throughout. From 1968 to 1970 in spite of the fluctuations in the value of purchases, it maintained the fifth position. In 1971, it was relegated back to the sixth post as total foreign purchases amounted to ₱488.84 million. During the ten-year period, the average proportionate share of electric machinery apparatus and appliances total imports was recorded at 5.30 per cent.

### ***Explosives and miscellaneous chemical materials***

The country is heavily dependent on imported products to satisfy the demand for explosives and miscellaneous chemical materials because of the insufficiency of domestic production.

Importation of this commodity suffered violent fluctuation. The year 1963 marked the entry of explosives and miscellaneous chemical materials among the ten leading imports during the period under study. It occupied the tenth post with total purchases valued at ₱78.13 million or a share of 3.14 per cent to total imports. In spite of the steadily increasing trend in the importation of this product it faded out three times from the ten major import posts, in 1964, 1966 and 1968. From then on its percentage share to total imports increased to 3.44 and 4.21, making it at the eighth and sixth post in 1969 and 1970, respectively. At the end of the period under study it was the seventh main import with ₱339.59 million. The average share to total imports during the decade was 3.36 percent.

### *Textile fibers and waste silk*

The rich Philippine forests could well provide the raw materials for the textile industry. However, more efficient methods of extracting the raw materials for the textile industry have not yet been fully developed. Thus, domestic requirements have to be filled by purchases from abroad.

The importation of textile fibers and waste silk exhibited varied tendencies. It was in the fifth position in 1962 when it accounted for 6.12 percent of total imports or amount equivalent to ₱138.72 million. However, it steadily went down to the tenth place in 1964 due to the decreases of 27.48 percent in 1963 over the previous year's level and 12.52 percent in 1964. The increased demand for the products was felt again in 1970 as manifested by an increase of 52.15 percent (from ₱150.79 million in 1969 to ₱229.43 million in 1970.) In 1971, its share to total imports rose to 3.67 percent but the relative increases in the importation of other commodities pushed it to the eighth place.

### *Dairy Products, eggs and honey*

Importation of this product during the ten-year period under review was characterized by fluctuations. It nonetheless indicates the low domestic supply of these products that it had to be substantiated by imports. In 1962, it accounted for 4.18 per cent of total imports valued at 94.68 million. This declined by 17.66 per cent in 1963 in which imports amounted to ₱77.96 million. It steadily rose since then until it reached ₱258.70 million in 1971. However, in spite of these increases, its position in the import ladder was not stable. The highest post it occupied during the decade was the seventh, in 1969. In 1963 and 1970, purchases of other commodities far surpassed its relative share, thus it was pushed from the top ten group. But in 1971, it was in the tenth place as its share to total imports rose to 3.21 per cent from a 2.86 percentage share in 1970.

This implies the country's inability to sustain its food requirements. Efforts should therefore be geared at increasing production of dairy products, eggs and honey to reduce importations. This will not only lead to self-sufficiency in food but also prevent the excessive drain in foreign exchange reserves.

### *Chemical elements and compounds*

Hand in hand with the growth of the manufacturing sector is the expanded demand for chemical elements and compounds. These are necessary ingredients for the processing of various products such as soap, medicine and plastic. It was virtually out of the major ten import posts from 1962 to 1969. With an increment of 69.79 percent in 1970, it landed on the eighth berth with total imports recorded at ₱214.79 million. It was ninth in 1971 with total purchases of ₱275.19 million. Although chemical elements and compounds are basic raw materials in the manufacturing industry, it may not be hastily concluded that the increase in the value of importations in 1970 is indicative of an expansion in the manufacturing industry, for the relative changes in the prices of these commodities should be aptly considered.

### *Source of Philippine Imports*

In the span of 10 years, significant changes in the direction of Philippine trade in terms of imports have been noticeable. The ten leading countries from which a great bulk of Philippine imports come from changed in their relative importance in filling the gap between local supply and demand. Their share to total imports averaged 85.10 per cent during the ten-year period (1962-1971), with their annual shares ranging from 82.51 per cent (1965) to 87.14 per cent, recorded in 1963. Barely 15 per cent of these importations may be traced from 100 other exporting countries.



During the period under study, United States, Japan and the Federal Republic of Germany consistently remained the first three leading exporters to the Philippines. Despite its gradually declining participation, United States continues to be the Philippine's leading trade partner. Imports from this country constituted an average annual share of 32.61 per cent. In 1962, United States accounted for 43.28 per cent of total imports or ₱81.52 million. This increased to ₱1,110.57 million in 1963 and ₱1,260.25 million in 1964 forming corresponding shares of 44.65 per cent and 40.56 per cent of the total. A 10.66 per cent drop from the 1964 level was registered in 1965 which decreased U.S. participation for that year by 5.76 per cent. Slight increases were then registered during the following years except in 1969 when imports from U.S. dropped to ₱1,412.45 million from the 1968 value of ₱1,589.62 million, representing 11.15 per cent decline. This abruptly increased to ₱2,073.46 million or 46.80 per cent over the previous year's level, the highest so far recorded during the ten-year period in review. This indicates that while import value increases, U.S. participation follows a declining pattern, percentagewise. This may be accounted for by the increase in tariff duties on goods coming from that country. Furthermore, the decline in U.S. participation proved that while the Philippines has special trade arrangements with the U.S., the country's intensified efforts to diversify its foreign trade and to gain favorable trade relations with other countries is beginning to show its impact.

Japan ranks as the second most important exporter to the Philippines. Imports from this country consistently followed an increasing trend throughout the ten-year period. It increased at an average annual rate of 24.97 per cent while its percentage share to total imports averaged 25.41 per cent during the entire period. From a ₱393.30 million share in 1962, Japan's exports to the Philippines reached the ₱1 billion mark in 1967 in a span of six years. It reached the ₱2 billion mark (₱2,100.95 million) in 1970 as a result of the 55.50 per cent increase over the 1969 value of ₱1,351.10 million. This placed Japan in the first rank, outpacing the United States by a meager .041 per cent in 1970 and 3.69 per cent in 1971. From these may be inferred that the ever-increasing and expanding trade relations between the two countries are auspicious and bright in the years to come, considering the short distance between them and their economies that complement each other in their economic advancement.

The Federal Republic of Germany remained unmoved as the Philippines' third most important trade partner during the entire period under study. The same table reflects that imports from the Federal Republic of Germany steadily increased throughout the ten-year span with only a 17.76 per cent decline over the 1964 level reflected in 1965. The average rate of increase of German exports to the Philippines was 21.90 per cent while its percentage share to total imports averaged 5.69 per cent from 1962 to 1971.

The fourth exporter to the Philippines is the United Kingdom. The Philippines imported ₱96.72 million worth of merchandise from the United Kingdom in 1962. This increased ₱142.69 million in five years' time (1966). During the first half of the ten-year period under review, there was a slight slackening in the growth of British exports to the Philippines when a 1.55 per cent drop over the 1964 figure was registered in 1965. It recovered in 1966 by an 11.25 per cent increase. Although such an erratic trend prevailed, U.K. remained in the fourth rank from 1962 to 1968. In 1969 and 1970, however, it slid down to the fifth position, with Australia leading a rank higher by a margin of only 0.37 per cent and 0.13 per cent in 1969 and 1970, respectively. In 1971, U.K. regained the fourth position, its share of imports amounting to ₱431.05 million or 5.35 per cent. Philippine imports from the United Kingdom averaged 4.35 per cent from 1962-1971, increasing at an average rate of 19.57 per cent annually.

Australia ranks as the fifth leading exporter to the Philippines. Fluctuations in the growth of Philippine imports from this country were exhibited during the period. From the 10th slot in 1962, imports amounting to ₱42.90 million or 1.89 per cent of the total, increased to ₱61.96 million in 1963, or an increase of 44.43 per cent. This further rose to ₱89.88 million, placing Australia in the fifth slot in 1964. In 1965, however, imports from Australia were reduced to ₱74.24 million, representing a 17.40 per cent decline. From 1966 to 1968, Australia retained the fifth rank. Further increments were registered in 1969 and 1970, this time Australia outranking United Kingdom. By 1971, imports from the country amounted to ₱304.63 million or 3.78 per cent. It should be noted that, although the participation of Australia to Philippine total imports varied sharply, it increased at an average rate of 26.39 per cent annually from 1962 to 1971.

Canada, the sixth ranking exporter to the Philippines, showed a steady growth in value although its share of over-all imports varied distinctly. It increased at an average annual rate of 18.86 per cent while its percentage share averaged 2.29 per cent during the period under review.

Indonesia was the seventh leading exporter to the Philippines. Trade with this country showed a promising future. Although fluctuations in both value of imports and the country's participation was noticeable during the first half of the period, somewhat steady increasing trend was visible from 1966 to 1971.

Sarawak emerged as the eighth ranking exporter in 1970 and 1971. From a practically negligible trade with this country, its goods gained favorable acceptance in Philippine markets. Imports from this country increased at the average of 44.58 per cent from 1962 to 1971 while its average percentage share was 1.30 per cent.

Table XIII.5—LEADING SOURCES OF PHILIPPINE IMPORTS: 1962 - 1971

(Value of Imports in Million Pesos)															
Country of origin	1971			1970			1969			1968			1967		
	Rank	FOB Value	Per cent	Rank	FOB Value	Per cent	Rank	FOB Value	Per cent	Rank	FOB Value	Per cent	Rank	FOB Value	Per cent
Total imports		8,058.12	100.00		6,682.49	100.00		4,624.14	100.00		4,677.00	100.00		4,139.92	100.00
Japan	1	2,461.06	30.54	1	2,100.95	31.44	2	1,351.10	29.22	2	1,348.17	28.82	2	1,084.38	26.19
United States	2	2,163.60	26.85	2	2,073.46	31.03	1	1,412.45	30.55	1	1,589.62	33.99	1	1,501.64	36.27
Federal Republic of Germany	3	514.87	6.39	3	383.92	5.75	3	351.77	7.61	3	282.40	6.04	3	200.35	4.84
United Kingdom	4	431.05	5.35	5	273.92	4.10	5	194.16	4.20	4	200.20	4.28	4	161.21	3.89
Australia	5	304.63	3.78	4	282.49	4.23	4	211.44	4.57	5	184.67	3.95	5	146.19	3.53
Canada	6	217.36	2.70		113.39	1.70	7	89.45	1.93	10	75.62	1.62	8	62.02	1.50
Indonesia	7	198.71	2.47	6	154.00	2.30	6	107.49	2.32	6	95.25	2.04	6	90.44	2.18
Sarawak (British Borneo)	8	170.47	2.12	8	134.45	2.01		69.87	1.51		72.74	1.55		54.52	1.32
Iran (Persia)	9	167.73	2.08	7	137.69	2.06	9	80.06	1.73		47.11	1.01		32.25	.78
Republic of China	10	155.81	1.93		85.14	1.27		47.63	1.03		45.01	.96		29.25	.71
Netherlands		132.04	1.64	9	129.70	1.94	8	88.84	1.92	7	80.05	1.71	9	61.50	1.49
Kuwait		154.42	1.92	10	128.59	1.92		79.03	1.71	9	75.76	1.62		46.03	1.11
Saudi Arabia		105.67	1.31		48.71	.73		42.47	.92	8	77.00	1.65	7	74.56	1.80
Thailand		118.63	1.47		2.67	.04		8.51	.18		3.84	.08	10	55.46	1.34
France		72.71	.90		100.68	1.51	10	84.81	1.83		59.28	1.27		55.37	1.34
Burma		40.64	.50		.18	b/		.12	b/		a/	-		17.17	.42
Hong Kong		68.28	.85		55.10	.82		48.48	1.05		51.53	1.10		45.42	1.10
All other countries		580.44	7.20		477.45	7.14		356.46	7.71		388.75	8.31		422.16	10.19
		1966			1965			1964			1963			1962	
Total imports		3,398.12	100.00		3,235.83	100.00		3,106.71	100.00		2,487.06	100.00		2,267.71	100.00
Japan	2	974.42	28.68	2	773.09	23.89	2	631.35	20.32	2	445.69	17.92	2	393.30	17.34
United States	1	1,158.23	34.08	1	1,125.96	34.80	1	1,260.25	40.56	1	1,110.57	44.65	1	981.52	43.28
Federal Republic of Germany	3	171.76	5.06	3	145.35	4.49	3	176.74	5.69	3	142.97	5.75	3	119.85	5.28
United Kingdom	4	142.69	4.20	4	128.25	3.96	4	130.27	4.17	4	126.61	5.09	4	96.72	4.26
Australia	5	118.99	3.50	8	74.24	2.29	5	89.38	2.89	8	61.96	2.49	10	42.90	1.89
Canada	9	55.91	1.65	6	100.91	3.12	6	88.08	2.84	6	71.66	2.88	7	66.32	2.95
Indonesia	6	88.47	2.60	9	70.91	2.19	7	85.59	2.76	5	72.46	2.91	5	81.08	3.58
Sarawak (British Borneo)		38.17	1.12		32.28	1.00		34.67	1.12	9	40.03	1.61		12.84	.57
Iran (Persia)		30.33	.89		29.73	.92		18.58	.60		1.76	.07		1.57	.07
Republic of China		28.55	.84		22.99	.71		25.08	.81		13.63	.55		18.49	.82
Netherlands	8	60.37	1.78	7	76.50	2.36	8	71.74	2.31	7	65.87	2.65	6	73.53	3.24
Kuwait		14.51	.43		10.31	.32		2.44	.08		22.03	.89		4.47	.20
Saudi Arabia	7	62.95	1.85		39.71	1.23	10	39.17	1.26	10	29.31	1.18	9	49.05	2.16
Thailand		25.98	.77	10	56.92	1.76	9	51.70	1.66		1.10	.04		13.60	.60
France	10	45.34	1.33		42.92	1.33		30.23	.97		19.03	.77		31.07	1.37
Burma		15.38	.45	5	117.82	3.64		39.06	1.26		a/	-		a/	-
Hong Kong		29.89	.88		23.22	.72		23.84	.77		28.42	.98	8	56.16	2.48
All other countries		336.18	9.89		364.72	11.27		308.04	9.91		237.96	9.57		224.74	9.91

a/ Less than 100 thousand.

b/ Less than .01 per cent.

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines, 1962 - 1971.

Iran (Persia) and Republic of China, the ninth and tenth leading exporters to the Philippines in 1971, favorably entered the Philippine markets only very recently. During the 1960's, imports from these countries were very meager compared to imports from other countries.

Imports from Netherlands, Kuwait, Saudi Arabia, Thailand and France followed a generally increasing trend despite the fluctuations reflected within the intervening years. Philippine purchases from Burma and Hong Kong, on the other hand, were rather irregular during the 1960's generally decreasing their share to total imports.

## BALANCE OF TRADE

During the entire span of the period under study, the country's balance of trade position proved to be favorable only in 1963 and 1966 with positive trade margins of ₱370.41 million and ₱25.01 million, respectively. The country's negative balance of trade margin fluctuated widely from ₱60.31 million in 1964 to a remarkably high level of ₱924.75 million in 1968. Hopes of narrowing the trade imbalance grew during the succeeding years as the increase in exports surpassed that of imports. This gave vent to a decline in the negative trade gap by as much as 82.35 per cent in 1970. However, prospects became dim as the balance of trade again widened to ₱560.02 million in 1971.

For the period under review, four of the leading trade partners of the Philippines — the United States, Netherlands, Spain and the Republic of Korea, gave the country favorable trade balances. Though Japan strengthened her position as the country's second most important trade partner, Philippine balance of trade position with this country became inauspicious as imports from this country resulted to a negative trade margin in 1971. This represents a 100.84 per cent decline from the positive trade balance in 1970.

Quite disturbing is the Philippines' deteriorating trade balances with European and Asian countries. Philippine trade deficit with these countries worsened as the years went on. The

Table XXII.6—PHILIPPINE BALANCE OF TRADE WITH LEADING COUNTRIES: 1962 - 1971

Country	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962
Total	560.02-	139.36-	789.77-	924.75-	663.06-	25.01+	135.99-	60.31-	370.41+	271.36-
United States	1,019.84+	754.39+	263.63+	115.23+	50.99+	350.39+	359.10+	254.61+	293.55+	76.84+
Japan	2.84-	339.11+	81.64+	154.58-	41.52+	94.14+	36.80+	115.74+	281.07+	75.65+
Federal Republic of Germany	233.86-	237.78-	278.72-	187.31-	113.47-	16.67-	29.76-	95.74-	15.17+	10.53-
United Kingdom	303.99-	219.13-	167.78-	173.40-	110.34-	114.92-	95.15-	89.31-	85.97-	68.61-
Australia	262.20-	254.71-	194.34-	167.68-	129.90-	106.72-	62.89-	74.00-	54.43-	38.36-
Canada	184.31-	94.11-	75.29-	65.37-	53.64-	47.27-	91.88-	79.07-	67.22-	63.51-
Indonesia	174.44-	142.53-	103.89-	81.91-	64.06-	87.41-	65.82-	84.44-	72.41-	80.50-
Netherlands	281.15+	119.24+	63.86+	101.16+	157.19+	216.02+	222.98+	27.61+	181.55+	46.24+
Republic of China	27.43-	32.32+	20.18+	25.78+	25.50+	21.09+	22.50+	23.57+	25.83+	3.15+
Sarawak	170.09-	134.44-	69.87-	72.71-	54.47-	37.74-	32.12-	34.13-	39.96-	12.63-
Thailand	106.39-	14.09+	6.83+	6.91+	49.48-	22.05-	55.20-	50.02-	1.67+	12.43-
France	37.11-	77.76-	71.51-	44.39-	42.42-	36.80-	17.56-	19.56-	.23+	23.42-
Italy	43.12-	77.21-	38.54-	55.15-	34.40-	13.61-	5.02-	6.01-	4.46+	4.10-
Spain	12.61+	31.39+	20.86+	13.34+	6.40+	10.52+	6.70+	10.76+	7.96+	12.90+
Sweden	1.86-	22.63-	18.45-	7.99-	2.81-	9.91+	25.71+	9.13-	14.13+	6.75-
Switzerland	47.56-	23.54-	33.06-	2.76-	.05+	15.06+	12.45-	7.56+	2.56+	14.69-
Denmark	9.80-	2.82+	.06-	5.42+	6.18+	23.45+	22.75+	14.99+	16.41+	4.51-
Hongkong	31.13+	34.93+	.05+	24.12-	24.05-	12.85-	10.97-	9.46-	9.94-	41.48-
Republic of Korea	158.71+	168.70+	97.11+	84.07+	69.90+	62.44+	33.36+	28.22+	20.76+	38.01+
Saudi Arabia	105.57-	48.66-	42.34-	76.93-	74.51-	62.85-	39.65-	39.05-	29.23-	49.01-
Iran (Persia)	166.62-	136.26-	78.81-	46.84-	32.25-	30.33-	29.72-	18.58-	1.73-	1.57-
Kuwait	153.94-	127.51-	78.99-	75.70-	45.96-	14.48-	10.29-	2.44-	22.03-	4.47-
Burma	40.62-	.11-	.16+	.02+	17.05-	15.34-	117.82-	39.05-	.06+	.03+
All other countries	8.29+	39.97-	92.44-	39.84-	171.98-	158.77-	189.59-	106.42+	112.08-	93.21-

Source: Bureau of the Census and Statistics, Foreign Trade Statistics of the Philippines: 1962 - 1971.

bulk of the imbalance during the entire period was accounted for by the United Kingdom, the Federal Republic of Germany, Australia, Canada, Indonesia, Sarawak, Iran, Kuwait and Saudi Arabia. Trade balances with these countries have been consistently unfavorable from 1962 to 1971 as Philippine imports expanded, both valuewise and percentage-wise.

On the other hand, Philippine trade with Hongkong showed improvements in 1969. The balance of trade which have been consistently in favor of Japan from 1962 to 1968 gradually turned in favor of the Philippines by a positive trade margin of ₱0.05 million in 1969. This increased to ₱34.93 million in 1970. Despite the decline of 10.88 per cent in 1971, it is hoped that trade between the two countries would prosper to the advantage of both countries.

## PHILIPPINE FOREIGN TRADE POLICIES

As developing countries incorporate expansion and diversification of exports in their development strategies, it has become more evident that the role of foreign trade in developing and shaping a country's economy has increasingly been recognized. Thus, as more import restrictions are imposed, emphasis are also laid on the expansion of exports to shift the trade margin in the country's favor.

However, a country ought not to aim simply for a positive trade balance, it should go deeper in terms of producing favorable repercussions in the country's economic structure by generating employment and income, creating a fertile ground for the flow of investments, and influencing the people's consumption habits. Thus, legislative measures are passed and government agencies are organized to direct foreign trade activities toward this goal.

### Investment Incentives Act

The Investment Incentives Act, otherwise known as R.A. 5186, was passed in Congress in 1967 to bring about a desirable climate for investments, expand export trade, and stimulate the production of import substitute goods. To carry out this objective, the Board of Investment was created as provided for in the act.

The Board prepares an annual Investment Priorities Plan which lists the preferred pioneer and non-pioneer areas of investments. In determining these areas, preference is given to import substitute and export industries giving special emphasis on those industries which increase the value of mining and agricultural products for export. Emphasis is also laid on capital goods and intermediate goods industries which further process domestic raw materials and which have considerable potential for earning foreign exchange through exports, and saving foreign exchange by substituting for imports.

A measured capacity is set for each preferred industry which when filled takes off the industry from the list of priority areas.<sup>2/</sup> Domestic or foreign enterprises registering with the Board are evaluated according to technical, economic, and financial soundness.

Philippine nationals, investing in pioneer enterprises are granted incentives such as tax allowance for investments, and tax exemption on capital gains and on the sale of stock dividends. On the other hand, registered enterprises are granted benefit incentives which include deduction of organizational and pre-operating expenses, accelerated depreciation deductible from taxable income, carry over of net operating loss, tax exemption on imported capital equipment, tax credit for withholding tax on interest, employment of foreign nationals, deduction for expansion reinvestment, anti-dumping protection, and protection from government competition. However, aside from availing of these benefits, pioneer enterprises are further granted such benefits as exemption from all taxes under the National Internal Revenue Code and post operative tariff protection. In cases where registered enterprises export their completely finished products and commodities, they are entitled to double deduction of shipping costs, and special tax credit on raw materials. All enterprises are granted preferences in government loans and private financial assistance.

<sup>2/</sup> Measured capacity is the difference between annual demand and annual production capacities of existing producers.

### Export Incentives Act of 1970

The Export Incentives Act of 1970, also known as R.A. 6135, is aimed at stimulating further the country's export trade. It lays emphasis on the utilization of domestic raw materials to the fullest extent possible in the diversification of exports of services and manufactures and on the development of new markets for Philippine products. This law offers incentives not only to domestic manufacturers and processors but also to export producers, export traders, and service exporters of locally manufactured export products. Ten years from the enactment of the bill, manufacturers and processors of export products may avail of such incentives as tax credit on raw materials and supplies, and on domestic capital equipment, reduced income tax on income from exports and tax exemption on imported capital equipment based on their export sales and in line with the Export Priorities Plan prepared by the Board of Investments. It also provides for the reduction of pre-exportation procedural steps undergone by ordinary exporters, and grants exemptions from complying with formalities and requirements in pre-shipment operations to exporters who are registered with the the Board of Investments.

### Foreign Trade Zone Act

R.A. 5490 which was signed into law on June 19, 1969 provides for the creation of a Foreign Trade Zone consisting of 556 hectares to be situated outside the town of Mariveles, Bataan on the central shore of Mariveles Bay. This was established primarily to push the development of export-oriented industries, to create more job opportunities and develop manpower skills, to strengthen the country's foreign exchange position and to hasten industrialization with the dispersal of industrial and manufacturing activities. These are all geared towards accelerating the development of the country and ensuring the economic security of the people.

The development of the zone is divided into three phases, phase I is composed of 80 hectares reserved for light, labor-intensive and export-oriented industries, while phase II and phase III are set aside for heavy industries.

Industries established in the zone are offered benefits and incentives which include duty-free and tax-free importation of raw materials, capital equipment, and machinery including parts; priority to Central Bank dollar allocations for imports; financial assistance in the construction of factory buildings to free rental on leased industrial lots up to December 31, 1973; a more simplified import and export documentation procedure; and adequate supply of low cost water power; integrated warehouse and transportation facilities; and the availability of easily trained and inexpensive labor, low-cost housing for zone workers, and other facilities such as banking, insurance, restaurant and recreation areas, and medical facilities.

### Export Deduction Scheme

The Export Deduction Scheme is essentially geared at encouraging and assisting export oriented industries through the Central Bank of the Philippines in procuring machinery, equipment, raw materials, and supplies not available locally. Export oriented industries refer to industrial firms majority of whose output is destined for export. These includes: (1) those firms engaged in the actual production of indigenous agricultural, forest (except logging), mineral and marine products for export; (2) those firms engaged in the processing or manufacture of finished products chiefly for export or with an export potential as revealed by exportation records or contracts, in which at least 70 per cent of the total raw materials, provided 50 per cent of the total production is desired for export; (3) those firms engaged in the processing or manufacture of finished products in which the actual or potential net foreign exchange earnings of each individual firm shall not be less than \$20,000.<sup>37</sup>

Under this scheme, industries classified as export-oriented subject to the approval of the Central Bank and the Monetary Board, may avail of export deduction arrangements in the procurement of machinery, equipment, raw materials, and supplies from abroad provided: these are not available locally, that the maturity of the foreign obligation shall not be less than five

<sup>37</sup>Net foreign exchange earnings refer to the difference between total foreign exchange earned out of the exportation of the products and the total foreign exchange it incurred in producing the finished product exported and servicing the operations of the firm.

years, and that terms and conditions are in conformity to the regulations governing foreign borrowings. In cases, where these firms are procuring machinery as replacement for fully depreciated equipment, they shall enjoy a reduction not exceeding 15 per cent of the FOB value of each export shipment. On the other hand, when the machinery, equipment, raw materials, and supplies are procured for a new project or for the expansion of an already existing export-oriented industry, the rate of reduction shall not exceed 50 per cent of the FOB value of each export shipment from the new project, or from incremental export earnings due to project expansion in the case of an already operating firm. In all instances, it is mandatory that all importations made shall be for the exclusive use of the applicant product.

### Trade Agreements

In order to maintain and strengthen the relationships existing between the Philippines and the countries with which it trades, and to develop trade and commerce that would be mutually advantageous to both parties, trade agreements are entered into after carefully deliberating on the terms.

Trade agreements in force to date as marked by the Laurel-Langley Agreement had been concluded way back in 1946 when the Philippines gained its independence. In April, 1955, a trade protocol was contracted with West Germany. This was followed by a similar agreement with the Republic of China in October of the succeeding year. In February and September 1961, agreements with two other Asian countries namely, the Republic of Korea and Pakistan, respectively, were concluded. In June, 1965 trade relations with Australia became established with the conclusion of the protocol designed for the purpose. Two years later, the Philippines entered into a trade agreement with the Benelux Economic Union (Luxembourg, Belgium and Netherlands). The following year the country's trade agreement expanded to include New Zealand and India. To this was further added Indonesia, the trade protocol having been concluded in May, 1969.

Pending ratification in the Philippine Senate is the trade agreement with Japan<sup>4</sup> while negotiations are still underway for the trade pacts with Burma and Switzerland. Renegotiation regarding the trade agreement with the Republic of China is also being taken into account. While formal trade agreements have been concluded only with these countries, we have trade relations with 114 countries, as of 1971. Of these agreements the Laurel-Langley Agreement has had a considerable effect on our foreign trade activities.

### Laurel-Langley Agreement

Philippine foreign trade relations with the United States is basically regulated by the Laurel Langley Agreement which was originally signed in July, 1946 and revised in September, 1955. The revised agreement provides for a less rapid imposition of U.S. duties on imports from the United States. Moreover, the changes in rates are to be made every three years, rather than every year, except Philippine duties from 1965 to 1971 which will be constant. Furthermore, the declining tariff preference will commence on January 1, 1956 rather than July 4, 1954, and the duty rates will reach 100% in January 1, 1974 rather than January 1, 1973. The declining tariff preferences are as follows:

PERIOD	US rate on Philippine Articles (per cent)	Philippine rate on US Article (per cent)
1956-58	5	25
1959-61	10	50
1962-64	20	75
1965-67	40	90
1968-70	60	90
1971-73	80	90
1974 (Jan. 1-July 3)*		

\* Effective July 4, 1974, the US rate on Philippine article will change from 100 per cent to Cuban rate to 100% of full (non-Cuban) U.S. duties.

<sup>4</sup> Trade with Japan is currently regulated by the Treaty of Amity, Commerce and Navigation which was concluded on December, 1960.

While quotas on sugar, cordage and rice were previously allotted for U.S. imports, the revised agreement deleted the quota on rice. Thus, the absolute quotas of the agreement remain on cordage and sugar. These products are subject to the decelerated rates provided for earlier. The revised agreement also provides that the quota on sugar "shall be without prejudice to any increases which the Congress of the U.S. might allow the Philippines in the future". Absolute quotas were also established on such products as cigar, tobacco, coconut oil, and buttons of pearl or shell. These products are not subject to the same duties as those applied to all other Philippine articles entering the United States. Instead the duty-free portion of the absolute quotas was to be reduced beginning 1955 in which 95 per cent of each quota would be entered free of duty, with the remaining 5 per cent subject to US-Cuban duties until January, 1974 after which quotas are to be abolished and full US duties are to be applied.

### **Other foreign trade policies**

Executive orders issued by the President from time to time further shape the country's foreign trade policy. Executive Order No. 302 issued in 1971 amended Executive Order 115 issued in 1960 which created the National Export Coordinating Center (NECC). The former provided for the transfer of the NECC from the Office of the President to the Department of Commerce and Industry. It further directed the NECC to reduce the procedural steps involved in export licensing and documentation; to set up the required guidelines and standards for the shipment of samples of Philippine products for the export market; and to provide standards to limit the discretion of examiners in appraising materials imported to the country as samples.

In the same year Executive Order No. 335 was issued designating the Bureau of Customs as the certifying authority for certificates of origin covering Philippine exports under the United Nations Conference on Trade and Development Generalized Scheme of Preferences.

Circulars and memoranda on import restrictions and export incentives are issued by the Central Bank from time to time to regulate the flow of foreign exchange in the country. Central Bank approval ought to be sought prior to making any importations. However, exemptions are granted along this line on those importing certain machinery and equipment such as agricultural machinery and implements and plant machinery and equipment including their spare parts, provided these importations are made on cash basis or where payment is to be within a period of 360 days.

## CHAPTER XXIII — GOVERNMENT FINANCE

The Philippine government, just like any other government which has its own way of acquiring revenues and which has a plan of spending the said income, always has a budget which is revised annually. The budget is both an economic and financial plan of the government. As an economic document, it contains priority objectives for social and economic development, programs for capital formation and policies, and proposed actions to bring about a rising level of production, income and employment, even distribution of income, stable prices and healthy balance of payments.

As a fiscal plan, the budget reflects the magnitude and direction of public spending, policies on taxation and public borrowing, financial operations of the government, and long-range projections.

The budget is also an effective management and administrative tool. It is concerned with the difficult task of programming and scheduling — deferring, restricting, or rejecting some programs to provide funds for more urgent requirements; identification of specific areas of management, improvement and cost reductions; efficient and economical use of government resources; and management of an orderly economic growth. The degree of management depends on the changes which can be made in the size or content of the budget to influence the quantity and character of economic activity. The economic management characteristic of budgeting is also the product of the political philosophy of a nation, and in particular, of prevailing attitudes toward the role of responsibility of government.<sup>1</sup>

This chapter presents by all means, though only limited to general funds, the comparative analysis of the government income and expenditures from 1961 to 1970. The ways by which the revenues are collected and the government agencies which participate in the campaign have been dealt with accordingly, as well as the expenditures in detail. Through it can be reflected the relative distribution of economic and political power within the nation.

### CONSOLIDATED GOVERNMENT FINANCE STATISTICS

This section presents the tables showing the comparative statement of income and expenditures under the general funds, for fiscal years ended June 30, 1970, and June 30, 1969.

The total income (see Table XXIII.1) of the General Fund amounted to ₱2,492,243 thousand for 1970, with an increase of ₱127,673 thousand over that of 1969 which reflected a total of ₱2,364,570 thousand. Revenues from taxation realized ₱2,281,981 thousand in 1970, with an increase of ₱114,801 thousand over that of 1969 or a change of 5 percent. The total ordinary income of ₱2,475,853 thousand for the year 1970 represented an expansion of ₱122,542 thousand in comparison with the previous year. Meanwhile, the extraordinary income of ₱16,390 thousand for 1970, which is 0.65 percent of the total income and which includes transfers from other funds, increased by ₱5,131 thousand over that of 1969.

The government expenditures (see Table XXIII.2) reached a total of ₱3,444,907 thousand for 1970, with an increase of ₱425,720 thousand over that of 1969. The total ordinary expenditures in the amount of ₱2,934,014 thousand for the performance budget agencies and the line-item budget agencies showed an increase of ₱296,675 thousand over that of the previous year. The extraordinary expenditures, on the other hand, which includes capital expenditures for both types of agencies and the transfer to other funds, recorded an increase of ₱129,045 thousand or from ₱381,848 thousand in 1969 to ₱510,893 thousand in 1970.

1/ Jose Burkhoad, *Government Budgeting*. New York, Wiley and Sons, Inc., 1956 pp. 59-82.



## GOVERNMENT FINANCE

Table LXIII.1 - COMPARATIVE CONSOLIDATED STATEMENT OF INCOME - GENERAL FUND: 1969-70

(In thousand pesos)

Item	1970	1969	+ Increase - Decrease
<b>ORDINARY INCOME</b>			
Revenue from taxation	2,261,961	2,167,181	+ 114,801
Excise taxes	237,799	234,080	+ 3,719
On imports	2,325	1,505	+ 820
On domestic products	235,465	232,546	+ 2,919
Foreign exchange	3	-	+ 3
Fines and penalties	6	30	- 24
License and business taxes	641,889	626,219	+ 15,770
On business	632,580	619,181	+ 13,399
On other than business	7,659	6,254	+ 1,405
Fines and penalties	915	699	+ 216
Miscellaneous	734	84	+ 650
Income taxes	709,441	648,520	+ 60,921
On business	437,885	416,744	+ 21,140
On other than business	269,815	230,137	+ 39,677
Fines and penalties	1,744	1,640	+ 104
Import duties	612,344	585,687	+ 28,657
On imports	611,052	579,671	+ 31,381
Fines and penalties	1,292	4,016	- 2,725
Other taxes and duties	80,510	74,675	+ 5,835
Documentary stamps tax	27,375	27,366	- 41
Charges on forest products	16,994	19,387	- 2,393
Wharfage fees	-	-	-
Estate, gift and inheritance taxes	16,042	14,137	+ 1,905
Residence tax	1,111	1,247	- 136
Franchise tax	6,793	6,101	+ 692
Immigration tax	586	586	-
Real property tax	-	-	-
Fines and penalties	930	1,119	- 189
Miscellaneous	10,730	4,731	+ 5,998
Earnings and other credits	193,871	186,130	+ 7,741
Operating and service income	165,001	145,698	+ 19,303
Government service	132,540	112,966	+ 19,575
Government business operations	8,781	8,285	+ 495
Interest	19,645	20,673	- 1,027
Fines and penalties	630	716	- 85
Miscellaneous	1,405	1,059	+ 346
Miscellaneous income	24,093	30,631	- 6,537
Reparations	-	-	-
Prior year credits	12,200	7,300	+ 4,900
Sale of goods/merchandise confiscated	517	890	- 373
Technical smuggling	3	16,961	- 16,959
Contributions	1,970	1,733	+ 217
Inventory adjustments	5	-	+ 5
Sweepstakes	29	38	- 9
Fines and penalties	317	506	- 188
Miscellaneous	9,051	3,181	+ 5,870
Sales of Assets	262	307	- 45
Public domain	170	174	- 3
Fixed assets	92	77	+ 14
Gains on sales	-	56	- 56
Income from public enterprises	6,515	11,494	- 4,979
Dividends	6,515	11,494	- 4,979
Interest	-	-	-
<b>Total ordinary income</b>	<b>2,475,853</b>	<b>2,353,311</b>	<b>+ 122,542</b>
<b>EXTRAORDINARY INCOME:</b>			
Repayment of advances and other extra-ordinary income	2,354	9,899	- 7,545
Repayment of advances government corporation	471	201	+ 270
Repayment of advances-local government	35	714	- 679
Share from Central Bank profits	-	-	-
Sec. 41, R.A. 265	-	8,618	- 8,618
Miscellaneous	1,848	365	+ 1,483
Transfers from other funds	14,036	1,361	+ 12,675
From General Fund (eliminated in consolidated total)	-	-	-
From Special Fund (eliminated in consolidated total)	14,023	1,058	+ 12,965
From Bond Fund (eliminated in consolidated total)	10	100	- 90
From Fiduciary Fund	4	203	- 199
<b>Total extraordinary income</b>	<b>16,390</b>	<b>11,529</b>	<b>+ 5,131</b>
<b>TOTAL INCOME (Inter-fund transfers in general, special and bond funds eliminated in consolidated total)</b>	<b>2,492,243</b>	<b>2,364,840</b>	<b>+ 127,573</b>

Source: General Auditing Office, Annual Report 1970.

## GENERAL FUND EXPENDITURES

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Table XIII.2 — COMPARATIVE CONSOLIDATED STATEMENT OF EXPENDITURES—GENERAL FUND: 1969-70

(In thousand pesos)			
Item	1970	1969	+ Increase - Decrease
<b>ORDINARY EXPENDITURES</b>			
For agencies operating under the line-item budget.			
Personal services	1,097,385	1,044,996	+ 52,388
Life and retirement insurance premiums (government share)	99,530	86,552	+ 13,978
Salary adjustment and standardization			
Funds charges	119,954	46,864	+ 73,090
Traveling expenses	45,555	46,852	- 1,296
Communication Services	825	883	- 58
Repair and maintenance of national government facilities	10,637	8,785	+ 1,849
Transportation services	368	511	- 142
Other services	145,699	101,285	+ 44,414
Supplies and materials	123,736	99,300	+ 24,436
Rent	3,454	2,666	+ 788
Interest	139,492	97,373	+ 42,120
Grants, subsidies and contributions	273,356	224,816	+ 48,540
Awards and indemnities	576	326	+ 250
Loan and sinking fund contributions	72,620	157,589	- 84,970
Losses of assets	49	29	+ 20
Pensions, retirement benefits and gratuities	75,777	61,864	+ 13,913
Auditing services	-	-	-
Equipment Outlay	29,913	30,986	- 1,074
<b>Total Ordinary Expenditures - Line Item Budget Agencies</b>	<b>2,238,926</b>	<b>2,010,680</b>	<b>+ 228,246</b>
For Agencies Operating under the Performance Budget.			
Personal services	420,998	385,806	+ 35,192
Life and retirement insurance premiums (government share)	9,201	8,071	+ 1,129
Salary adjustment and standardization			
Funds charges	8,655	2,785	+ 5,870
Maintenance and other operating expenses	244,475	204,132	+ 40,343
Auditing services	-	-	-
Equipment outlay	11,799	25,865	- 14,106
<b>Total Ordinary Expenditures Performance Budget Agencies</b>	<b>695,088</b>	<b>626,659</b>	<b>+ 68,429</b>
<b>Total Ordinary Expenditures Line-Item and Performance Budget Agencies</b>	<b>2,934,014</b>	<b>2,637,339</b>	<b>+ 296,675</b>
<b>EXTRAORDINARY EXPENDITURES:</b>			
<b>CAPITAL EXPENDITURES</b>			
For Agencies Operating under the line-item budget			
Land, land improvement and structure outlay	314,241	138,107	+ 176,134
Investment outlay	58,538	120,224	- 61,687
Loans outlay	60	-	+ 60
<b>Total Capital Expenditures Line-Item Budget Agencies</b>	<b>372,839</b>	<b>258,331</b>	<b>+ 114,508</b>
For Agencies Operating under the Performance Budget			
Land, land improvement and structure outlay	6,169	7	+ 6,162
Loans outlay	-	-	-
<b>Total Capital Expenditures-Performance Budget Agencies</b>	<b>6,169</b>	<b>7</b>	<b>+ 6,162</b>
<b>Total Capital Expenditures-Line-Item &amp; Performance Budget Agencies</b>	<b>377,008</b>	<b>258,338</b>	<b>+ 120,670</b>
<b>TRANSFERS TO OTHER FUNDS:</b>			
To General Fund (Eliminated in Consolidated Total)	-	-	-
To Special Fund (Eliminated in Consolidated Total)	70,843	70,815	+ 28
To Bond Fund (Eliminated in Consolidated Total)	20,000	20,000	-
To Fiduciary Fund	41,042	32,695	+ 8,347
<b>Total Transfers to Other Funds</b>	<b>131,885</b>	<b>123,510</b>	<b>+ 8,375</b>
<b>Total Extraordinary Expenditures</b>	<b>510,893</b>	<b>381,848</b>	<b>+ 129,045</b>
<b>Total Expenditures (Inter-Fund Transfers in General Special and Bond Fund Eliminated in Consolidated Total)</b>	<b>3,444,907</b>	<b>3,019,187</b>	<b>+ 425,720</b>

Source: General Auditing Office, Annual Report 1970.

### Ten-Year Summary of Government Income and Expenditures

The table below shows the ten-year summary of government income and expenditures from 1961 to 1970. The accompanying chart (Fig. XXIII.1) clearly gives a view of the government financial status in the country.

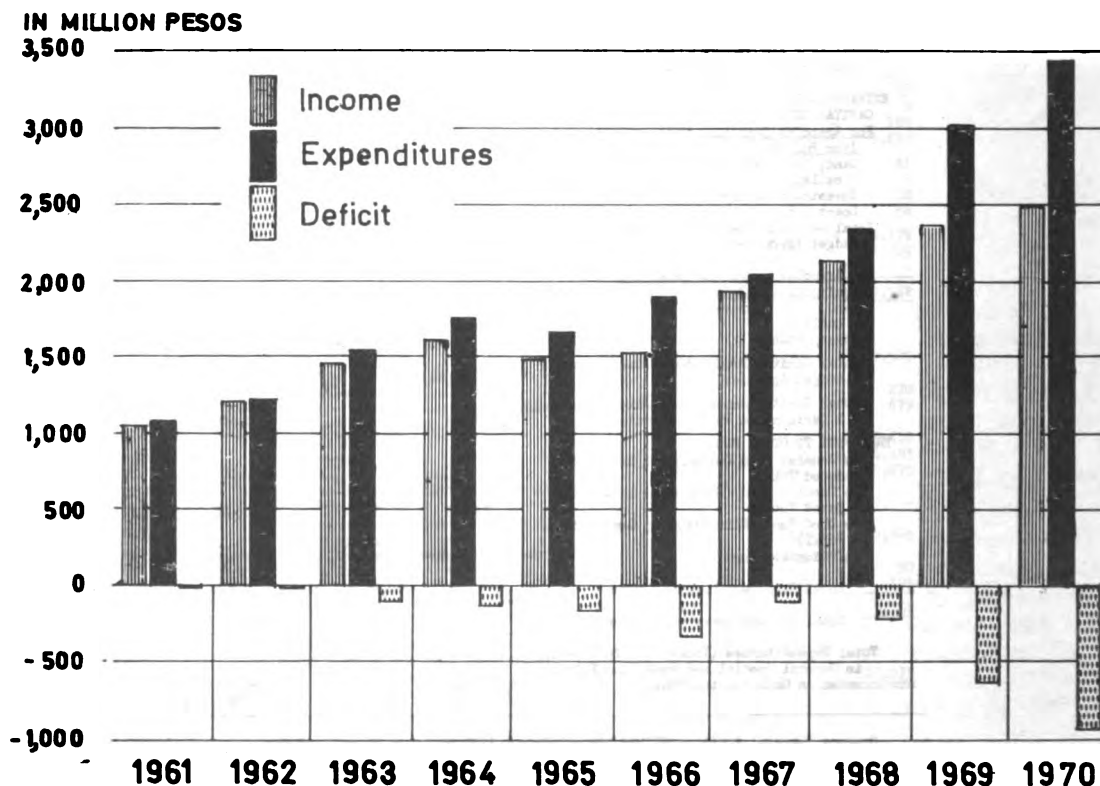
Table XXIII 1.—TEN-YEAR SUMMARY OF GOVERNMENT INCOME AND EXPENDITURES: GENERAL FUND

(In Thousand Pesos)			
Fiscal Year	Income	Expenditures	Excess of Income and Expenditures or (DEFICIT)
1961	1,079,948	1,077,401	(37,453)
1962	1,190,465	1,208,661	(11,976)
1963	1,429,327	1,535,370	(106,043)
1964	1,608,970	1,761,836	(152,866)
1965	1,482,071	1,667,090	(174,978)
1966	1,552,168	1,873,536	(321,368)
1967	1,928,473	2,043,287	(114,734)
1968	2,105,106	2,332,178	(227,072)
1969	2,364,970	3,019,187	(654,617)
1970	2,492,243	3,444,907	(952,664)

Source: Annual Reports, GAO.

FIGURE XXIII.1

### TEN YEAR SUMMARY OF GOVERNMENT INCOME AND EXPENDITURES GENERAL FUND: 1961-1970



Source: GENERAL AUDITING OFFICE ANNUAL REPORT

From an income of P1,039,948 thousand at the start of the period under study, it increased to P2,492,243 thousand within a span of ten years. However, the expenditures trebled from P1,077,401 thousand to P3,444,907 thousand. This resulted in a deficit of P952,664 thousand in 1970. In 1965, a reduction in the activities of the previous year might have taken place since there was a lower level of income and expenditures even though the deficit remained slightly higher. For the period under study, the government deficit was at its lowest in 1967. The following years, however, were marked by much bigger expenditures than income such that in 1970 deficit reached an all-time high of P952,664 thousand.

### Fiscal Transactions of General Fund

It is of interest to know the fiscal transactions of the different funds of the National Government in order to distinguish the relationship between the government and the public with respect to revenue raised and services provided. These can also in one way or another explain the fluctuations in the previous table presented.

Table XXIII.4 shows the fiscal transactions of the general fund from 1966 to 1970. The total income of the General Fund, including transfers from other funds in 1966 amounted to P1,552.2 million, which almost doubled to P2,492.2 million in 1970; while the total expenditures, including transfers from other funds, aggregated P1,893.5 million and almost doubled to P3,444.9 million in 1970. In 1967, the total income of P1,928.5 million, including transfers from other funds, was accompanied by a total expenditure of P2,043.2 million, resulting in an operational deficit of P114.7 million, or P226.6 million less than the operational deficit of P341.4 million in 1966. This deficit in 1967 (P114.7 million) was covered by funds borrowed through the issuance of treasury bills and treasury notes under Republic Act No. 254 and provisional advances from the Central Bank under Republic Act No. 264, altogether amounting to a net of P116.07 million. The excess of P1.37 million of the net borrowings over the deficit, together with the surplus adjustment of P10.03 million, reduced the accumulated current deficit of P176.0 million in the General Fund on June 30, 1966, to P164.6 million on June 30, 1967. Some P105.3 million were expended for repayment of loans and advances, while P152.4 million were spent for acquisition and construction of roads and buildings. The operational deficit in 1968, amounting to P227.1 million was greater by P112.3 million than that in 1967. The 1968 deficit was covered partly by funds raised through the issuance of bills and treasury notes under Republic Act 245 and provisional advances from the Central Bank of the Philippines under Republic Act 265, amounting to a net of P227.51 million.

The total expenditures of P2,332.18 million include unexpended balances of appropriations certified to accounts payable in the sum of P432.58 million. Consequently, the general funds, instead of having a cash deficit, had a cash balance of P120.93 million in the National Treasury on June 30, 1968. During the same period, P20.43 million of undocumented certifications to accounts payable were reverted to the surplus of the general fund pursuant to Republic Act No. 3526. Also included in the total expenditures of P2,332.18 million were the repayments of loans and advances, totalling P132.55 million and the expenses for the acquisition and construction of fixed assets such as roads and buildings, purchases of equipment and investment in the total amount of P191.85 million.

The General Fund in 1969 realized an aggregate income including transfers from other funds, P2,364.6 million and incurred total expenditures, including transfers to other funds, of P3,019.2 million, thereby sustaining an operational deficit of P653.56 million as compared with the operational deficit of P227.07 million in 1968. This deficit in 1969 was covered partly by funds raised through the issuance of treasury bills and treasury notes under Republic Act No. 245, provisions advances from the Central Bank of the Philippines under Republic Act No. 265, and loans from the International Bank for Reconstruction and Development under Republic Act No. 16 in the net amount of P250.05 million.

Forming part of the expenditures of the General Fund during the fiscal year 1969 were the sums of ₱70,115.15 million and ₱14,005.7 million representing payments of two 5-year promissory notes, dated February 17, 1959 and March 19, 1959, for the advances from the Central Bank of the Philippines from the quota of the Republic of the Philippines in the International Monetary Fund and its subscriptions to the International Bank for Reconstruction and Development (IBRD), respectively, pursuant to Republic Act No. 2052, as amended by Republic Act No. 2686.

In 1970, income from the General Fund, including transfers from other funds, marked a total of ₱2,492.2 million while the expenditures, including transfers from other funds, aggregated ₱3,444.9 million, resulting in an operational deficit of ₱952.7 million which was the biggest in five years. There was a tremendous upsurge of operational deficit from 1967 to 1970, during which a total of ₱114.7 million in 1967 rose to ₱952.7 million in 1970. The deficit of 1970 was partly covered by receipts derived from sale of treasury bills and treasury notes authorized under Republic Act No. 245, as well as by provisional advances from the Central Bank under Section 95 of Republic Act No. 265, in the net amount of ₱878.05 million. The total expenditures of ₱3,444.9 million included ₱212.11 million for repayment of loans and advances, ₱58.5 million for investment outlays, and ₱320.4 million for the acquisition and construction of fixed assets.

The receipts from borrowings of the General Fund during fiscal year 1967 netted ₱116.1 million as compared to the net receipts from borrowings during fiscal year 1966 in the sum of ₱274.8 million. These borrowings served to cover the deficit of ₱114.7 million in 1967. The net borrowings of ₱227.5 million in 1968 served to cover the deficit of the same year. During the fiscal year 1969, the net receipts from borrowings totalled ₱251.1 million which served to cover part of the operational deficit of ₱653.56 million, as shown in the same table. In 1970, the net borrowings amounted to ₱875.1 million, which partially covered the excess of expenditures over income.

Included in the total income of ₱1,552.2 million in 1966 were revenues from taxation. In 1967, the total income of ₱1,928.5 million included extraordinary income of ₱85 million representing part of the share of the National Government from profits realized by the Central Bank from the 20 per cent export retention scheme up to December 31, 1964 by virtue of the operations of the Central Bank circulars Nos. 105, 111, 117, 121, and 133 which were issued pursuant to Republic Act No. 2609. The distribution of the net profits of the Central Bank in accordance with Section 41 of its charter, Republic Act No. 265, was made under Monetary Board Resolution No. 1331, dated July 25, 1967 and confirmed on July 28, 1967. This amount was taken up as extraordinary income and receivable in the books of the National Treasury as of June 30, 1967, on the strength of a credit advice issued subsequently by the Central Bank on August 2, 1967. The revenues from taxation accruing to the General Fund in 1967 totalled ₱1,706 million, exceeding similar collections and accruals totalling ₱1,413.9 million in 1966.

The revenues from taxation, accruing from the Bureau of Internal Revenue, Bureau of Customs, and other bureaus and offices in 1968, grossed ₱1,885.06 million, showing an increase of ₱179.5 million over similar revenues in 1967. However, this revenue fell short of the estimated ₱2,006.65 million in 1968 by ₱121.68 million. In 1969, revenues from taxation totalled ₱2,167 million, exceeding the previous year's level by ₱282.2 million. The total revenues from taxation realized by the General Funds in 1970, which invariably constituted the bulk of the income of the National Government, amounted to ₱2,282.08 million, exceeding by ₱114.8 million tax collections in 1969.

**Table XXIII.4. FISCAL TRANSACTION OF GENERAL FUNDS**  
(In Million Pesos)

	1966	1967	1968	1969	1970
Total Income (including transfers from other funds)	1,552.2	1,928.5	2,105.1	2,364.6	2,492.2
Total expenditures (including transfers from other funds)	1,893.5	2,043.2	2,332.18	3,019.2	3,444.9
Operational Surplus (Deficit)	(341.4)	(114.7)	(227.07)	653.56	(952.7)
Borrowing (Net)	274.8	116.1	227.5	251.1	875.1
Revenues from taxation	1,413.9	1,705.5	1,885.06	2,167.1	2,282.08
Bureau of Internal Revenue	801.7	865.8	984.3	1,175.3	1,020.9
Bureau of Customs	610.4	838.1	895.7	989.1	3.0
Other Bureau and Offices	1.7	1.2	5.0	2.8	196.2
Miscellaneous Revenues (excluding inter-fund transfers)	120.5	221.8	218.0	196.0	196.2
Inter-fund transfers (Income of the General Fund)	18.3	1.1	—	—	—
Inter-fund transfers (Expenditures of the General Fund)	52.9	73.9	—	—	—
Surplus Adjustment (net)	2.8	10.03	—	—	—
Current Surplus (Deficit) June 30	(175.9)	(164.6)	(135.1)	(527.8)	(529.1)
Public Debt Outstanding, June 30	3,728.3	4,290.7	5,029.5	5,788.9	7,122.4
Sinking Fund Reserved, June 30	266.4	305.2	408.8	460.2	533.0

Source: Annual Reports, Digest of Annual Report of the Auditor General.

## TAXATION IN THE PHILIPPINES

The existing problems confronting the country, where multitudes of children of school ages have been deprived of formal education because of inadequacy of school rooms and buildings, growing unemployment, insufficient number of hospitals, puericulture centers, and rural health units, beg for long-awaited solutions which the government has to undertake. To these problems an updated system of taxation would simply serve as a catalyst.

As a statement of fact, too many taxes are harmful, yet taxes are the only means to finance the government by transferring resources from the private sector especially those who have the ability to pay, to the public sector. The investment of such funds in public development projects helps increase the productivity of the private sector as well as improve the distribution of income.

The stability of the national economy can be measured when it can withstand the existing crisis and formidable difficulties. In an effort to improve the financial condition of the country, the present administration is committed to pushing forward our country's economic development programs at a faster pace.

The Philippine tax system, like that of the United States, reposes on the taxpayer the prior obligation to determine his tax and voluntarily pay the same.<sup>2</sup> And so, for the last many fiscal periods, reliance on voluntary compliance was the main characteristic of the government approaches to tax collection.

### Bureau of Internal Revenue

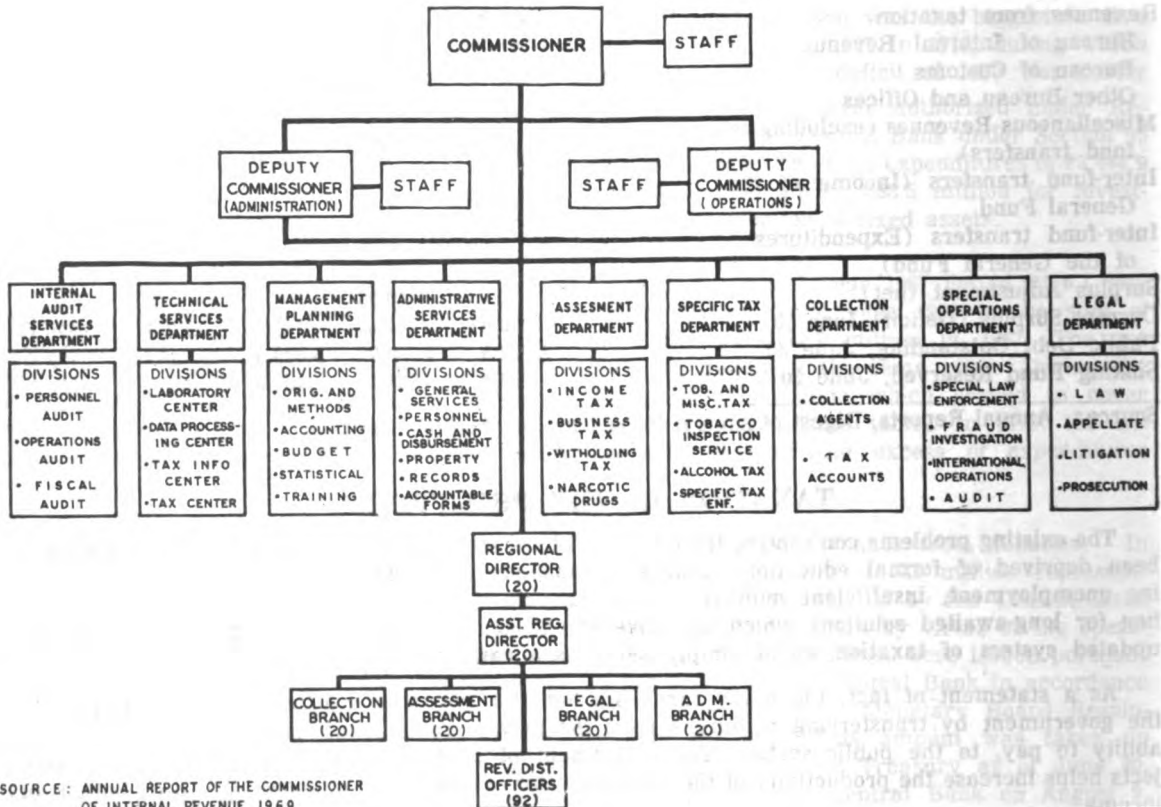
Tax collection is simply the taking up of taxes. In the level of public administration, it is an intricate art, that of obtaining the payment of taxes. Hence, the collection as it has evolved today is two-faceted: the actual taking up of taxes, and the employment of intelligent, skillful means to accomplish such end.<sup>3</sup> It is this difficult task of tax collection that has been vested

2/ Annual Report of the Commission of Internal Revenue, 1967 p. 2.

3/ Ibid

upon the Bureau of Internal Revenue together with other government agencies. In order to have a clear view of how the Bureau accomplishes its manifold duties of being the prime tax-collecting body in the government, the organization chart (Figure XXIII.2) illustrates how the BIR implements the laws and regulations pertaining to said duties.

FIGURE XXIII.2  
**ORGANIZATION CHART**  
**BUREAU OF INTERNAL REVENUE**  
**AS OF JANUARY 2, 1969**



SOURCE: ANNUAL REPORT OF THE COMMISSIONER  
OF INTERNAL REVENUE, 1969

## Collections of the Bureau of Internal Revenue

The collections of the Bureau of Internal Revenue from taxes and other kinds of revenues and receipts consist of the following:

**General Fund Revenues** — Tax revenues are derived from the following major sources: (1) income tax on individuals and on corporations, (2) estate, inheritance and gift taxes, (3) specific tax on certain articles, (4) privilege tax on business and occupations including the sales tax, (5) documentary stamp tax, (6) mining tax and (7) miscellaneous taxes, namely: tax on banks, tax on receipts of insurance companies, franchise tax, amusement taxes, charges on forest products, fees for sealing weights and measures, firearms tax, and land and water rentals.

The principal revenues from sources other than taxation are as follows: (1) sale of assets, (2) service income, (3) fees of justice of the peace, (4) miscellaneous income, (4) income from rentals, (6) inventory adjustments, and (7) fines and forfeitures.

**Special Fund Revenues** — Tobacco inspection fees; specific tax on manufactured oils, diesel, fuel oil and other fuels; percentage taxes levied on proprietors or operators of sugar centrals; a portion of charges on forest products; 50 percent of the specific tax on locally manufactured Virginia-type-cigarette; 1 percent of the franchise tax on textile mills; 5 percent of the taxes on amusement — these constitute the major sources of the collections of the Bureau of Internal Revenue pertaining to the Special Funds.

The Bureau of Internal Revenue collections for fiscal year 1969 was drawn from basically the same sources, except one. A new source was added, which is the Science Stamp Tax Law, otherwise known as Republic Act No. 5448, passed during the Sixth Congress. The new law imposes an additional levy equivalent to the required documentary stamp tax on every taxable transaction entered into in this country.

In 1970, several laws were also enacted by Congress and approved by the President, one of which is Republic Act 6125, an act which imposes a tax on exports. Under this law the country's principal exports shall be subject to a declining stabilization tax ranging from 10 percent starting from the approval of the law (May 1, 1970) until it is finally written off on June 30, 1974. The tax is levied on the following exports products — logs, copra, centrifugal sugar, copper ore and concentrates, chromite and concentrates, copra meal or cake, unmanufactured abaca, unmanufactured tobacco, veneer core and sheet, plywood, lumber, canned pineapple, and bunker fuel oil.

An Export Incentives Act, Republic Act No. 6135, was enacted on August 31, 1970. It offers a vast array of tax incentives to qualified enterprises engaged in the manufacturing, processing, tending or exporting of domestic products. "Export products" is defined as those goods made in the Philippines whose value did not exceed 5 million US dollars and not more than 80 percent of the value of which is attributable to imported raw materials with qualities meeting the standards set by the Bureau of Standards or by the chamber, groups, or body designated by the Board of Investments.

Republic Act No. 6141, otherwise known as the Special Price and Order Account Law, imposes a tax of 2 percent on stock transfer such a tax being levied on the seller, computed on the gross selling. Likewise, an additional travel tax of ₱300 for the first class passengers and ₱200 for the economy or tourist class passengers, was imposed.

## DIRECT TAXES

### Individual Income Tax

Every Filipino citizen, whether residing in the Philippines or abroad, and every alien in the Philippines, having a gross income of ₱1,800 or more during the preceding calendar year, regardless of whether the gross income was derived from sources within or outside the Philippines, must file an income tax return. Every non-resident alien deriving income from sources within the Philippines, regardless of amount, must file also an income tax return.



Notwithstanding the above provisions, a Filipino citizen, whether residing in the Philippines or abroad, or a resident alien, or a non-resident alien, engaged in trade or business in the Philippines shall file an income tax return if he falls under any of the following categories, regardless of whether he derives any income or not for the taxable year if, during that taxable year, he

a. is an official or employee of the government or has a contract with the Government of the Republic of the Philippines, or any of its agencies or instrumentalities, including government-owned or controlled corporations, regardless of the nature of his appointment or duration of his employment;

b. is a professional — (profession is differentiated from "occupation" in that the former is a calling which requires the passing of an appropriate government board or bar examination, such as lawyer, doctor, CPA, engineer, etc. Although no income is derived therefrom, the profession, if any, should also be stated when filing);

c. is a registered or beneficial owner, or mortgagee of any real property;

d. is a registered or beneficial owner, or mortgagee of any share of stock or security or a corporation, or any interest in a firm or partnership;

e. is a registered or beneficial owner, or mortgagee of any motor vehicle;

f. has travelled abroad except children below eighteen years of age;

g. has filed a certificate of candidacy for any public office except barrio officials and municipal councilor;

h. Is engaged in trade or commerce.

If the taxpayer is unable to make his own return, on account of illness, absence or non-residence, the return may be made by his duly authorized agent or by the guardian or other persons charged with the care of his person or property, the principal and his representative or guardian assuming the responsibility of making the return and incurring penalties provided for erroneous, false or fraudulent returns. In all cases the authority should be attached to the return. Husband and wife should always file a consolidated return containing the income of both spouses.

Returns are due on or before April 15 following the close of the calendar year unless the filing is extended by the Commissioner of Internal Revenue. Extensions are granted in meritorious cases only and the tax due is subject to interest at 12 percent per annum for late payment from the original due date. The total amount of income tax shall be paid at the time the return is filed but not later than April 15 following the close of the calendar year. When the tax due is in excess of ₱500, the taxpayer may elect to pay the tax in two equal instalments, in which case the first instalment shall be paid upon filing and the second instalment, on or before July 15 following the close of the calendar year. The tax must be computed on the basis of the figures appearing in the return, based on the tax table (see Table XXIII.5). The tax should be paid in the city or municipality where the return is filed.

Unless the taxpayer is a non-resident alien, he may elect the optional standard deduction which is an amount equal to 10 percent of his gross income but not to exceed ₱5,000. If he does not signify in his return his intention to elect the optional standard deduction, he shall be considered as having chosen the itemized deductions. Such election made in the return is irrevocable for the taxable year covered by the return. Itemized deductions must be proved, whereas the optional standard deduction is accepted without proof. If the previous return shows a net capital loss, said loss (in an amount not exceeding the net income in said return) may be claimed in the return as a loss from the sale or exchange of capital assets held for not more than 12 months deductible to the extent of capital gains.

The exemptions are as follows:

a. Single, estate or trust .....	₱1,800
b. Married or head of family .....	3,000
c. Qualified dependent child .....	1,000

The term "head of the family" includes an unmarried man or woman with one or both parents, or one or more brothers or sisters, or one or more legitimate, recognized natural or adopted children living with and dependent upon him or her for their support where such brother, sister, or children are not more than 23 years of age, unmarried and not gainfully employed or

where such children though over 23 years old, are incapable of self-support because they are mentally or physically defective. An unmarried head of the family should state the name, age and his/her relationship with his dependent. Only one dependent is necessary to entitle him to claim the ₱3,000 personal exemption as head of the family.

The additional exemption of ₱1,000 may be claimed for each legitimate, recognized, natural, or adopted child wholly dependent upon and living with the taxpayer if such child is not more than 23 years of age, unmarried and not gainfully employed, or if over 23 years of age, he/she is incapable of self-support because he is mentally or physically defective.

If the taxpayer is married or should have additional dependent during the taxable year he/she may claim the corresponding personal exemptions in full for such year. If the taxpayer should die during the taxable year, his/her return should be filed in his/her own name followed by the word "deceased" enclosed in parenthesis. He/she may still claim the personal and additional exemption for himself and his dependents as if he died at the close of such year. If the spouse or any of the dependents should die during the year, he/she may still claim the same exemption as if anyone of them died at the close of such year.

A non-resident alien is entitled to a personal exemption only if the income tax law of his country allows a similar exemption to a citizen of the Philippines not residing in such country but deriving income therefrom but not to exceed the amount fixed for citizens of the Philippines under the Tax Code and provided further that he files a true and accurate return of his income from all sources within the Philippines.

Table XXIII.5 - TAX TABLE  
(Effective January 1, 1968)

Net Income Subject to Tax		Tax Due	
Not over ₱2,000 .....		3%	
Over ₱2,000 but not over ₱4,000 .....	₱60 plus	6% of excess over	₱2,000
Over ₱4,000 but not over ₱6,000 .....	₱180 plus	9% of excess over	₱4,000
Over ₱6,000 but not over ₱8,000 .....	₱360 plus	12% of excess over	₱6,000
Over ₱8,000 but not over ₱10,000 .....	₱600 plus	14% of excess over	₱8,000
Over ₱10,000 but not over ₱12,000 .....	₱880 plus	16% of excess over	₱10,000
Over ₱12,000 but not over ₱14,000 .....	₱1,200 plus	18% of excess over	₱12,000
Over ₱14,000 but not over ₱16,000 .....	₱1,560 plus	20% of excess over	₱14,000
Over ₱16,000 but not over ₱18,000 .....	₱1,960 plus	22% of excess over	₱16,000
Over ₱18,000 but not over ₱20,000 .....	₱2,400 plus	24% of excess over	₱18,000
Over ₱20,000 but not over ₱24,000 .....	₱2,880 plus	27% of excess over	₱20,000
Over ₱24,000 but not over ₱28,000 .....	₱3,960 plus	30% of excess over	₱24,000
Over ₱28,000 but not over ₱32,000 .....	₱5,160 plus	33% of excess over	₱28,000
Over ₱32,000 but not over ₱36,000 .....	₱6,480 plus	36% of excess over	₱32,000
Over ₱36,000 but not over ₱40,000 .....	₱7,920 plus	39% of excess over	₱36,000
Over ₱40,000 but not over ₱46,000 .....	₱9,480 plus	42% of excess over	₱40,000
Over ₱46,000 but not over ₱52,000 .....	₱12,000 plus	44% of excess over	₱46,000
Over ₱52,000 but not over ₱58,000 .....	₱14,000 plus	46% of excess over	₱52,000
Over ₱58,000 but not over ₱64,000 .....	₱17,000 plus	48% of excess over	₱58,000
Over ₱64,000 but not over ₱70,000 .....	₱20,280 plus	50% of excess over	₱64,000
Over ₱70,000 but not over ₱78,000 .....	₱23,280 plus	52% of excess over	₱70,000
Over ₱78,000 but not over ₱86,000 .....	₱27,440 plus	54% of excess over	₱78,000
Over ₱86,000 but not over ₱94,000 .....	₱31,760 plus	56% of excess over	₱86,000
Over ₱94,000 but not over ₱102,000 .....	₱36,240 plus	57% of excess over	₱94,000
Over ₱102,000 but not over ₱110,000 .....	₱40,800 plus	58% of excess over	₱102,000
Over ₱110,000 but not over ₱120,000 .....	₱45,440 plus	59% of excess over	₱110,000
Over ₱120,000 but not over ₱130,000 .....	₱51,340 plus	60% of excess over	₱120,000
Over ₱130,000 but not over ₱140,000 .....	₱57,340 plus	61% of excess over	₱130,000
Over ₱140,000 but not over ₱150,000 .....	₱63,440 plus	62% of excess over	₱140,000
Over ₱150,000 but not over ₱160,000 .....	₱69,640 plus	63% of excess over	₱150,000
Over ₱160,000 but not over ₱180,000 .....	₱75,940 plus	64% of excess over	₱160,000
Over ₱180,000 but not over ₱200,000 .....	₱88,740 plus	65% of excess over	₱180,000
Over ₱200,000 but not over ₱250,000 .....	₱101,740 plus	66% of excess over	₱200,000
Over ₱250,000 but not over ₱300,000 .....	₱134,740 plus	67% of excess over	₱250,000
Over ₱300,000 but not over ₱400,000 .....	₱168,240 plus	68% of excess over	₱300,000
Over ₱400,000 but not over ₱500,000 .....	₱236,240 plus	69% of excess over	₱400,000
Over ₱500,000 but not over .....	₱305,240 plus	70% of excess over	₱500,000

Source: Bureau of Internal Revenue

### Corporate Income Tax

For domestic corporations and foreign corporations engaged in trade or business within the Philippines, a corporate income tax is levied as follows: 22 percent upon total net income which does not exceed ₱100,000 and 30 percent upon the amount by which such total net income exceeds ₱100,000 except the building and loans associations where 12 percent upon total net income is imposed, private educational institutions where 10 percent upon total net income, life insurance companies where 6.5 percent upon total net investment income received from interest, dividends and rents from all sources, whether from or without the Philippines.

For foreign corporations not engaged in trade or business but receiving interest, dividends, or other fixed or casual income, capital gains within the Philippines, a tax of 30 percent is levied upon gross income.

Additional tax is imposed on corporations improperly accumulating profits or surplus, except banks, insurance companies, whether domestic or foreign. The basis for taxation is the undistributed portion of accumulated profits or surplus, 25 percent in addition to the top rate under section 24 of the National Internal Revenue Code.

### Transfer Taxes

On estate tax, the tax base is the net estate; the tax rate is from 1 percent — 15 percent. The period of payment starts within nine months after decedent's death; but if judicial proceedings are instituted within six months after decedent's death, it is due within twenty-one months after decedent's death.

### Inheritance Tax

The tax base is on individual share of each heir or beneficiary in the net state after deducting the estate tax. Period of payment starts within twelve months after decedent's death; but if judicial proceedings are instituted within six months after decedent's death, it is due within twenty-four months after decedent's death. The net estate is subject to tax varying from 2 percent to 22 percent.

### Gift Tax — (Donors)

Tax based on aggregate net gifts for the current and prior calendar years, 1 percent — 15 percent less taxes paid on prior calendar years donation. Gift taxes (donors') basis is the aggregate net gifts for the current and prior calendar years received by each donee subject to 2 percent — 22 percent less taxes paid on prior calendar years' donation.

### Residence Tax

The tax on individuals (Residence Tax A) is an obligation for every inhabitant over 18 years of age under certain conditions; it costs only ₱.50 plus surcharge. It is due on or before April 30, if the individual becomes liable to the tax on or before April 30. Residence taxes are required of the parents for school enrolment of children in public schools. Likewise, it is a requirement for employment purposes and for securing police clearances.

Residence tax B is a tax based on every ₱5,000 worth (assessed value) of real property in excess of ₱10,000, every ₱5,000 gross receipts or earnings from business in excess of ₱10,000. It is due on or before the 20th day after the person becomes liable to the tax within the period from April 11 to June 30.

Residence tax C is levied on every ₱5,000 worth (assessed value) of real property, every ₱5,000 gross receipts or earning from business in the Philippines. Immigration tax is imposed on every alien over sixteen years of age and for a stay in the Philippines exceeding sixty days ₱25.00 payable at time of entry.

Residence Certificate C (base) is imposed on corporations having business in the Philippines. The amount is ₱5.00 payable on or before April 30, if the corporation becomes liable to the tax on or before April 30.

Residence Certificate D is imposed on any person not liable to the payment of the residence tax; the tax rate is ₱.20 issued any time upon request.

### Other Taxes

Taxes such as license fees and hunting permit fees are due on the date of the license to possess; firearms license is issued and on each anniversary thereof or not later than sixty days after the tax becomes due and payable. The amounts due are as follows:

	Initial	Amount
each shotgun .....	₱15.00	₱10.00
each high powered rifle .....	30.00	20.00
each rifle, except caliber 22 revolver .....	25.00	20.00
each rifle, except caliber 22 rifle .....	30.00	20.00
each permit (hunting) .....		2.00

For every tobacco inspection, the following shall be collected for every lot which will then accrue to the Tobacco Inspection Fund:

for each thousand cigars . . . .	₱0.30
for each thousand cigarettes . . . .	.03
for each one hundred kilograms of leaf tobacco . . . .	.50
for each kilogram of other manufactured tobacco . . . .	.01

### Indirect Taxes

Indirect taxes comprised of specific taxes, privilege taxes, percentage taxes, documentary stamp tax, mining taxes, tax on banks doing business in the Philippines, tax due on insurance premiums, franchise tax, amusement taxes, charges on forest products, annual license fees of dealers in firearms, ammunitions and explosives, fees for the sealing of weights and measures, tobacco inspection fees, narcotics tax, rentals on water for power purposes, under Bureau of Internal Revenue.

### Local Taxes and Fees

Local taxes and fees are taken from real property tax, municipal license fees, percentage tax on sales, specific tax, fees for services rendered, including income from operation of public utilities and similar activities additional specific tax on manufacture oils cart and sledge tax, frontage tax, fisheries fee, cattle registration fee, secretary's fees for impounding astray animal, building permit fee, marriage license fee, burial or removal of remains permit fee, berthing fee, meat and inspection fee, electricians fee, boiler inspection fee, gas inspection fee, license tax on stores, signboards and billboards, tax on gamecocks and cockfights and other just, uniform and unoppressive taxes, licenses or fees for other public purposes.

### Motor Vehicle Fees

The Land Transportation Commission is responsible for the collection of vehicle fees. Collections from annual registration fee of motor vehicle, fees for special permits to operate or use certain types of motor vehicle, additional fees for each change of registration status, transfer of ownership, revision or re-issue of certificate of registration, fee for number plates, annual fee for dealer's number plate for demonstration and testing, driver's license fee, and student drivers' permit fee.

The Land Transportation Commission is principally a service and revenue collecting agency with administrative and regulatory responsibilities. It has three programs dealing with the enforcement of land transportation and traffic code, the inspection and registration of motor vehicles, examining and licensing of drivers and conductors, the enforcement of traffic rules and regulations, collection of revenue and general administration, the operation and maintenance of the motor vehicle number plate-making plant, and the construction of Land Transportation Commission offices and other permanent improvements.

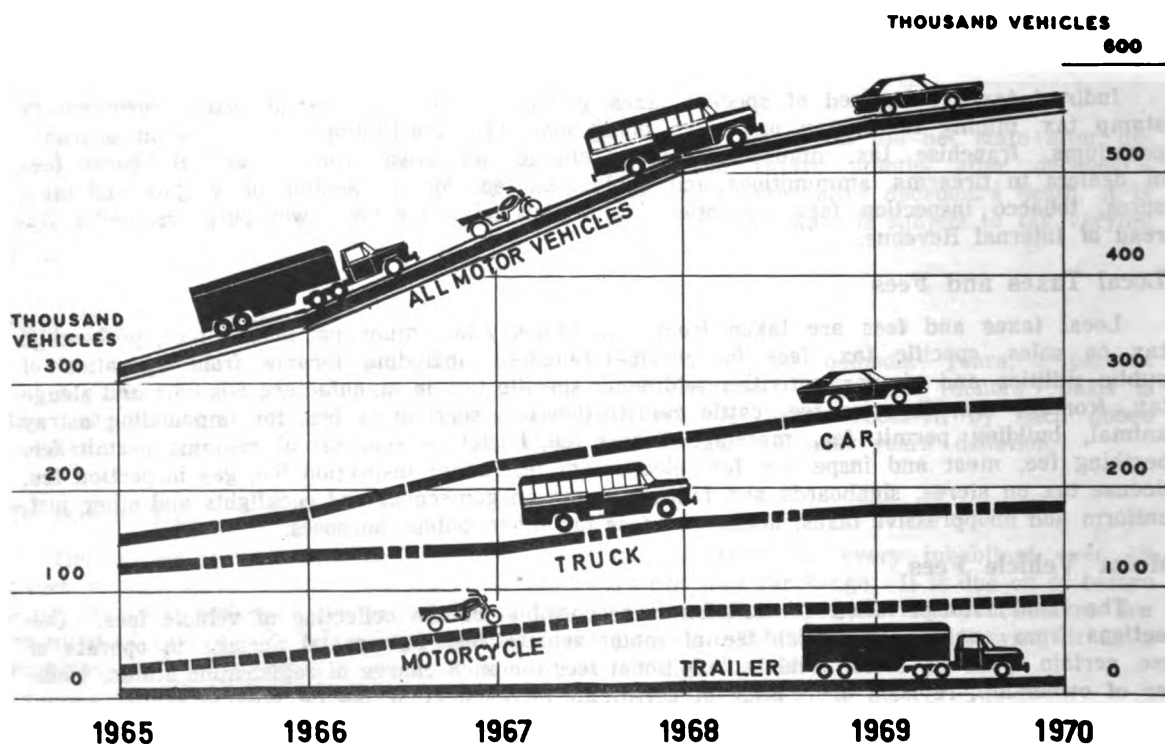
The Land Transportation Commission's collection of various taxes for fiscal year 1970 amounted to ₱96.8 million. For the fiscal year 1971, estimated collection is ₱103.7 million.

The manufacture of number plates has become very profitable for the LTC. While the motoring public pay ₱4 for each pair plates and ₱2 for each pair of motorcycle plates, the LTC spend not more than ₱2 and ₱1.40, respectively, to manufacture them. During fiscal year 1970, the LTC realized a gross profit of ₱967,640 from the sale of 71,746 pairs of motorcycle plates and 390,499 pairs of motor vehicle plates, which amount was reverted to unappropriated surplus.

Figure XXIII.3 shows the yearly data on motor vehicle registration which is also a source of revenue for the Philippines. The year 1970 showed the highest vehicle registration of cars and trucks. Registration of trailers for one decade, more or less indicates a slight increase in 1970. Both cars and trucks exhibited a fluctuating increase from 1960 to 1970. While registration of motorcycles showed a negligible increase in 1960 to 1965, it rose remarkably from 1966 to 1970. Motorcycles are in demand especially in places where jeepneys and cars cannot freely convey passengers. Trailers, which are most often used by government entities, remained steady for one decade.

FIG. XXIII. 3

### COMPARATIVE STATISTICS ON MOTOR VEHICLES: 1965-1970



SOURCE: LAND TRANSPORTATION COMMISSION

## The Philippine Tariff Commission

The Tariff Commission made extensive use of the tariff as a tool to raise additional government revenue, regulate the volume and composition of Philippine imports particularly of non-essentials in order to minimize, if not altogether eradicate, balance-of-payment difficulties.

Aimed to raise revenue, tariff rates have rose to a point intended to yield maximum income in order to support the activities of the government. However, the Philippine-United States free trade relations until the end of 1955 may be characterized by about 73 percent of Philippine external trade with the United States resulting in only about a 40 per cent share of tariff of the aggregate customs revenue.

In anticipation of the effectivity of the preferential trade under the Bell Trade Agreement, amendments to the Philippine Tariff Act of 1909 under Executive Order No. 150 series of 1955 by a 30 percent across-the-board increase were adopted so as to protect domestic industries besides their principal role of raising revenue. The application of the gradually increasing tariffs on United States goods at the beginning of 1956 gave rise to the growing awareness of the tariff as a tool of economic policy.

The first Philippine Tariff law enacted by a Philippine legislature was known as the Tariff and Customs Code of the Philippines under Republic Act 1937. The Philippine Tariff policy substantially responded to the needs of the manufacturing sector. Protective rates of duty are levied on articles such as motor vehicles, electric bulbs, pianos, made-up textiles and embroidered fabrics, socks and stockings, sotanghon, miki and others. The purpose of such restrictions is to protect the domestic industries from unfair competition of imported goods.

The tariff adjustment, import quota, and other restrictions (R.A. 5452) provide that importation shall not be less than 10% nor more than 100% of the average annual quantity imported during the 3-year period preceding the imposition of the quota or in the absence thereof, the average value of the such importation or the government may institute such other import restrictions. The Tariff Commission shall conduct an investigation to determine whether any product is being imported by the Philippines in such quantity and or under such conditions as to cause or threaten serious injury to the domestic industry producing like or directly competitive products. The enactment of the Act is indicative of the consistent policy to protect domestic manufacturing industries against the pressure of foreign competition.

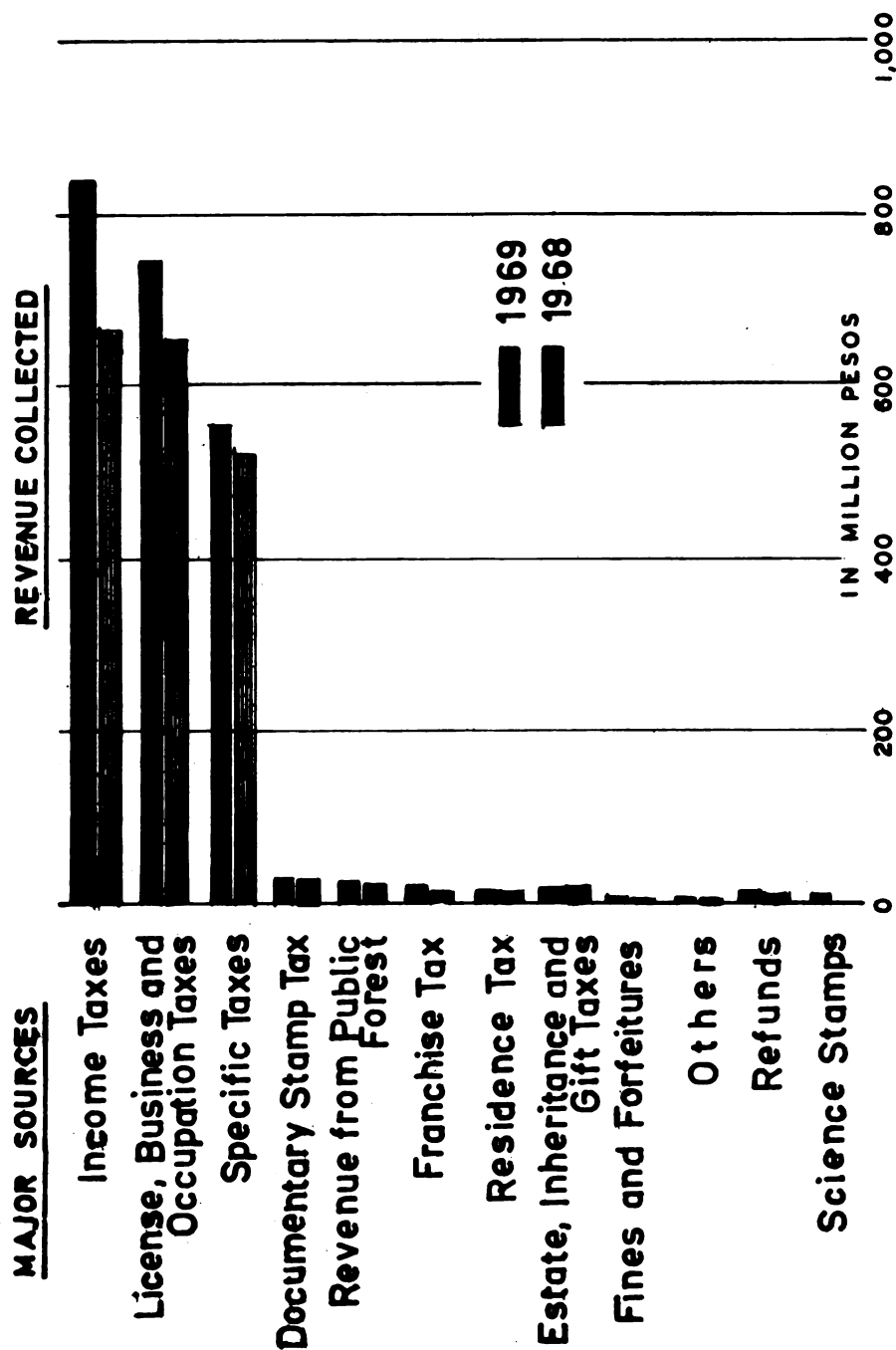
## Tax Collections of the Bureau of Internal Revenue

Table XXIII.6 shows the receipts of the Bureau of Internal Revenue from 1951 to 1970. From ₱506,605 thousand in 1951 it soared to ₱1,894,470 thousand in 1969, or about four times as much. Excise tax proved to be the biggest source until 1961. In 1962 business tax brought in more receipts in the amount of ₱319,719 thousand compared to the ₱312,810 thousand from the excise tax. This was maintained until 1968 after which receipts from income tax and war profits tax exceeded either those of the excise or business tax — ₱855,521 thousand compared to ₱725,446 thousand of business tax and ₱490,890 thousand of excise tax in 1969. This sudden upsurge in the receipts from income tax may be attributed to the intensified tax collection launched by the BIR against delinquent taxpayers and tax evaders.

The overall increase in tax collections is usually attributed to the normal growth of business or the increase in the number of taxpayers. Table XXIII.7 and Figure XXIII.4 show the major sources of revenues for fiscal years 1968 and 1969. The greater bulk of collections came from three major sources, namely; income taxes, license, business and occupation taxes, and specific taxes. Income taxes accounted for 37.01 percent of the entire collections in 1969 and corporate income tax in particular about 21.34 percent. License, business and occupation taxes made up 32.93 percent of the gross collections; specific tax, 24.38 percent. From 1968, all the three major sources showed an increase of 26.58 percent, 14.58 percent, and 6.55 percent.

FIGURE XXIII.4

# **TOTAL AMOUNT OF REVENUE COLLECTED BY MAJOR SOURCES** **FY. 1968 and 1969**



SOURCE: ANNUAL REPORT OF THE COMMISSIONER OF INTERNAL REVENUE, 1969.

Table XIII.6 - RECEIPTS OF THE BUREAU OF INTERNAL REVENUE BY TYPE OF TAX: 1951-70

(In thousand pesos)

Year	Total	Excise Tax	Business Taxes	Income Tax, war profits tax	Other Taxes 1/	Amount apportioned to local government,	Other Receipts 2/
1951	506,605	219,999	153,848	95,871	17,257	(33,610)	53,280
1952	513,934	227,535	139,966	122,912	19,140	(41,377)	45,757
1953	523,569	253,006	139,066	112,161	17,576	(47,783)	49,542
1954	542,628	255,353	150,607	109,179	20,048	(58,364)	57,804
1955	568,277	243,014	159,835	138,195	21,847	(54,632)	60,018
1956	511,758	227,290	170,979	149,217	25,437	(58,175)	10
1957	553,501	245,246	178,061	160,259	26,939	(66,649)	8,745
1958	546,079	257,805	160,646	163,149	29,582	(69,286)	4,183
1959	596,151	260,823	170,713	194,309	35,829	(67,282)	1,759
1960	700,204	275,675	215,925	265,697	34,780	(95,806)	3,934
1961	754,864	286,876	270,767	277,008	56,503	(119,687)	3,397
1962	872,425	312,810	319,719	324,469	49,845	(135,733)	4,315
1963	1,030,984	354,677	391,841	397,841	58,269	(179,952)	8,230
1964	1,156,153	362,980	459,813	448,201	57,074	(215,128)	43,213
1965	1,192,499	334,741	436,263	495,590	67,063	(217,614)	76,458
1966	1,336,087	384,289	518,915	482,829	75,232	(220,788)	95,610
1967	1,524,587	401,663	625,862	611,916	83,562	(303,495)	105,079
1968	1,739,079	463,598	688,753	762,981	94,267	(376,712)	106,192
1969	1,894,470	490,890	725,446	855,521	96,158	(390,491)	116,946
1970 <sup>a/</sup>	1,623,503	345,503	635,179	925,880	78,042	(457,147)	96,168

1/ Consists of franchise tax; documentary stamp tax; inheritance and gift taxes; residence tax, and revenue from public forests.

2/ Consist of incidental revenue, earnings and other credits and receipts of the Special Fund.

<sup>a/</sup> January to August, 1970.

Source: Bureau of Internal Revenue.

Table XIII.7.—MAJOR SOURCES OF REVENUE, FISCAL YEARS 1969 AND 1968

(In Thousand Pesos)

I T E M S	Percent of 1969 collections	Fiscal Year		Increase or Decrease	
		1969	1968	Amount	Per cent
GRAND TOTAL .....	100%	2,267,965	1,939,247	328,717	16.95
Income Taxes, Total .....	37.02	839,408	663,170	176,238	26.58
Corporation .....	21.34	483,958	411,460	72,497	17.62
Individual .....	6.75	153,051	148,932	4,098	2.75
Withholding Tax on Wages .....	3.98	90,376	69,636	20,740	29.78
Withholding Tax at Source .....	4.94	112,023	33,121	78,902	238.22
License, Business and Occupation Taxes .....	32.98	748,020	652,845	95,175	14.58
Specific Taxes .....	24.38	553,020	519,018	34,012	6.55
Documentary Stamp Tax .....	1.18	26,817	24,825	1,992	8.02
Revenue from Public Forest .....	1.04	23,527	20,446	3,080	15.07
Franchise Tax .....	0.79	17,819	14,259	3,560	24.97
Residence Tax .....	0.66	14,943	13,853	1,090	7.87
Estate, Inheritance and Gift Taxes .....	0.64	14,372	16,392	(1,727)	(10.60)
Estate Tax .....	0.32	7,254	6,222	1,032	16.59
Inheritance Tax .....	0.20	4,635	8,212	(3,577)	(43.56)
Gift .....	0.12	2,683	1,866	818	43.81
Fines and Forfeitures .....	0.17	3,918	3,147	770	24.48
Others .....	0.13	2,993	2,488	506	20.33
Refunds .....	0.54	12,229	8,896	3,332	37.46
Science Stamps .....	0.47	10,688	-	10,688	-

Source: Annual Report of the Commissioner of Internal Revenue, 1969.



## Bureau of Customs

The Bureau of Customs is another important branch of the government responsible for the rigid implementation of tax collection.

Taxes and other revenues are collected at customs in connection with the external trade of the country. Excise tax on imported goods, compensating tax, advance sales tax and documentary stamp tax are likewise collected by the Bureau of Customs for Internal Revenue. These four taxes are levied under the provisions of the National Revenue Code, as such they are recorded as General Fund Receipts of the Bureau of Internal Revenue.

**General Fund Revenue** — These originate principally from (1) ordinary import duties, (2) special import tax (3) documentary stamp tax (4) sales of assets, (5) service income (6) a part of arrastre changes and (7) other income.

**Special Fund Revenues** — These consist of the following: (1) wharfage fees, (2) tonnage dues, (3) harbor fees, (4) berthing fees, (5) storage charges, (6) a part of arrastre charges, and (7) other fees and charges (certificate of Philippine registry or ownership and coastwise, bay, or river license).

Table XXIII.8 shows the growth of yearly collections from 1951 to 1970 (January to August). With ₱41,106 thousand in 1951, it rose to a total of ₱623,981 thousand in 1969, or an increase of about 1,418 per cent. Of the total receipts, import duties which occupy the prime revenue-collection item in 1951 (about 75 per cent of the total) still went up to as high as 91 per cent of total receipts by 1969.

**Table XXIII.8 RECEIPTS OF THE BUREAU OF CUSTOMS, 1947-1970**  
(In thousand pesos)

Period	Total <sup>1/</sup>	Import Duties <sup>2/</sup>	Tonnage Dues	Documentary Stamp Tax	Other Receipts <sup>3/</sup>
1951	41,106	31,392	687	1,616	7,411
1952	38,070	28,923	624	1,639	6,884
1953	39,219	29,404	630	1,649	7,536
1954	52,359	40,432	1,049	2,137	8,741
1955	61,313	47,271	882	2,381	10,779
1956	200,501	182,437	864	2,697	14,503
1957	223,213	197,009	1,073	2,953	22,177
1958	192,283	164,208	1,121	3,011	23,943
1959	231,078	204,468	1,634	2,783	22,193
1960	264,044	237,507	1,156	3,203	22,177
1961	311,505	285,368	(22)	3,033	23,131
1962	359,998	329,553	( 2)	3,158	27,284
1963	430,333	396,462	04	3,604	30,263
1964	447,033	409,394	3,081	3,806	30,752
1965	405,676	357,059	2,286	3,509	42,822
1966	460,639	410,372	3,045	4,120	43,102
1967	567,630	509,798	5,505	4,072	48,255
1968	657,818	605,509	2,516	4,357	45,436
1969	623,981	568,662	2,722	3,762	48,835
1970 <sup>a/</sup>	545,874	478,191	4,688	2,410	60,585

<sup>1/</sup> Includes refunds of prior income.

<sup>2/</sup> Includes fines and forfeitures starting July 1955, following the division accounts, General circular No. 35, dated July 29, 1955 — the General Auditing Office.

<sup>3/</sup> Consists of earnings and other credits, receipts appropriated, wharfage dues and others.

<sup>a/</sup> January to June 1970.

Source: Bureau of Customs

## The General Auditing Office

Suffice it to say that some improvements in the government's revenue position can be made through intensified tax collections. The effort toward economic development has to be accelerated in the face of an expanding population. The present administration is committed to pushing forward the country's development at a faster pace. Without instituting a revamp of our tax system, giving much emphasis on tax collection, the fulfillment of this promise is bound to be frustrated. Hand in hand with private investment, public capital formation (financed mostly by taxes) propels the nation towards economic progress.

The GAO is an independent constitutional body entrusted to help improve the finance of the National Government and to insure prompt reporting on the financial operations, not only of the National Government but also of the various subdivisions of the government. The office through its Internal Audit Coordinating Department, has provided technical training to internal auditors and appraised performance of 35 agencies on internal auditing work with a view to improve the fiscal operations and promote the efficiency of the public service. Through its Legal Department, the office has acted upon 2,393 cases involving divergent subject matters, such as claims for benefits, claims for payment of per diems and other expenses; cases involving interpretation of the provisions of certain laws, controversial retirement cases, and claims for condonation of rentals due from tenants of estates being administered by the Land Authority. It has also extended assistance in the prosecution of malversation cases and in administrative investigations.

Program audit teams continue to conduct regular and special audits in various national government agencies, local governments and government owned or controlled corporations. In their audit, besides reviewing accounting records and procedures, they also look into agency operating practices, methods and policies. The audit report for each engagement underscore the deficiencies noted and recommends solutions to improve financial management practices in the agencies concerned. Copies of the audit reports, in cases of serious irregularities are furnished to the proper authorities for remedial measures.

Statement of cash shortages and defalcations discovered covering the fiscal year 1961 to 1970, is shown in Table XXIII.9. The year 1964 reflected the biggest number of cases, discovered 214 in all, followed by 1966 with 200 cases and 1967, 162 cases. However, the year 1968 registered the highest amount defalcated in the amount of ₱3,403,088.77 of which about ₱93,778.31 was recovered, leaving unrecovered ₱3,309,310.46. In 1970, although only 103 cases were discovered, the total amount defalcated reached ₱2,984,625.55 of which some ₱2,912,936.54 remained unrecovered. Summing up all cases discovered during the decade, we have a total of 1,305 cases, with ₱1,886,403.56 recovered and the amount of ₱17,030,328.18 remaining unrecovered. Table XXIII.10 shows the cost of audit from 1961 to 1970. The year 1966 shows the biggest cost of audit per ₱1,000.00 with ₱2.10 followed by 1965 with ₱1.94 per ₱1,000.00 audited, and 1962 with ₱1.79 cost of audit. The year 1964 which had the biggest number of cases discovered showed only a total cost of ₱1.71 per ₱1,000.00 audited.

**Table XXIII.9 STATEMENT OF CASH SHORTAGES AND DEFALCATIONS  
DISCOVERED, FISCAL YEARS 1961 TO 1970**

Year	Number of cases discovered	Total amount defalcated	Total amount recovered	Total amount unrecovered
1961	91	688,933.09	65,555.43	623,377.66
1962	138	767,200.93	111,970.71	655,630.22
1963	87	590,008.85	96,304.29	493,704.56
1964	214	1,402,935.29	265,670.50	1,037,264.79
1965	113	1,456,450.13	100,037.40	1,347,412.81
1966	200	1,882,600.13	223,027.95	1,659,572.18
1967	162	2,802,133.84	103,324.15	2,692,809.69
1968	86	3,403,088.77	93,778.31	3,309,310.46
1969	111	2,938,755.08	640,445.81	2,298,309.27
1970	103	2,984,625.55	71,689.01	2,912,936.54
<b>Total</b>	<b>1,305</b>	<b>₱18,916,731.74</b>	<b>1,886,403.56</b>	<b>17,030,328.18</b>

**Table XXIII.10. COMPARATIVE STATEMENT COST OF AUDIT**

Cost of Audit per ₱1,000.00		Cost of Audit per ₱1,000.00	
Year	Audit <sup>a</sup>	Year	Audit
1961	₱1.52	1966	₱2.10
1962	1.79	1967	1.75
1963	1.50	1968	1.66
1964	1.71	1969	1.40
1965	1.71	1970	1.57

a/ The cost of audit for every ₱1,000 audited for 1941 or immediately before the outbreak of the last World War is ₱3.55.

Source: Digest of the Report of the General Auditing Office.

## GOVERNMENT EXPENDITURES

The relationship between the government and the public with respect to revenue raised and services provided has been presented in Table XXIII.2. Government expenditures do not provide only certain goods or services but they also — through their effect on the quantity of purchasing power, the efficiency of resource use, the distribution of income, and the like — affect the efficiency of the entire economy.<sup>4</sup> It will be through this section, therefore, that we will know of the patterns of government expenditures which in a way, will help improve the public image of the government as a vital, even if not the most efficient, sector of the national economy.

### Expenditure by Function

Classification of government expenditures by function provides evaluation on the direction of public investments. From Table XXIII.11 can be seen how the 1969 pesos was distributed according to functions. The biggest bulk of the combined expenditures of the General, Special and Bonds Funds was absorbed by the executive branch of government. Under this function the three biggest items of expenditures were those for the promotion of education, ₱983.74 million or 27.33 percent, transportation and communication, ₱556.69 million or 15.46 percent and national defense, ₱388.11 million or 10.78 percent. In contrast, less than 1 percent of the total expenditures went to the following functions of the government; labor and welfare ₱22.6 million or 0.62 percent, pensions and gratuities ₱18.7 million and/or 0.51 percent. On the other hand, at least 5 percent were expended for the following functions: general government, ₱262.2 million or 7.28 percent, agriculture and natural resources ₱299.4 million or 8.31 percent, other economic development ₱242.7 million or 6.75 percent, public health and medical care ₱196.7 million or 5.46 percent, and debt service ₱283.9 million or 7.88 percent. However, expenditures for the promotion of commerce and industry was approximately ₱69.7 million or 1.93 percent.

Legislative function shared second biggest with a total of ₱70,201 thousand while judicial function received ₱63,762 thousand. This is further illustrated by the accompanying diagram (Figure XXIII.5) wherein a clear presentation is shown.

The functional classification according to the United Nations concept also makes possible international comparability. On the economic development program side, budgetary resources were allotted for the development and building up of our public works and infrastructure facilities, agriculture, commerce and industry and transportation and communications.

The social development program is concerned with the improvement of human resources. This involves the adequate provision of large amount of funds for the public school system which assumed the biggest portion of the social development budget as well as the provision of facilities for health, labor and social welfare.

The larger portion for national defense was earmarked to put into effect a defense concept compatible with the country's independence, to maintain peace and order and to undertake necessary civic and developmental projects in cooperation with other government agencies.

4/ Richard W. Lindholm, Public Finance and Fiscal Policy, Pittman Publishing Corporation, pp. 55.

General government comprises legislative services, administration of justice, general government operations and pensions and gratuities. The servicing and amortization of the public debt represented a negligible portion of budgetary expenditures, too.

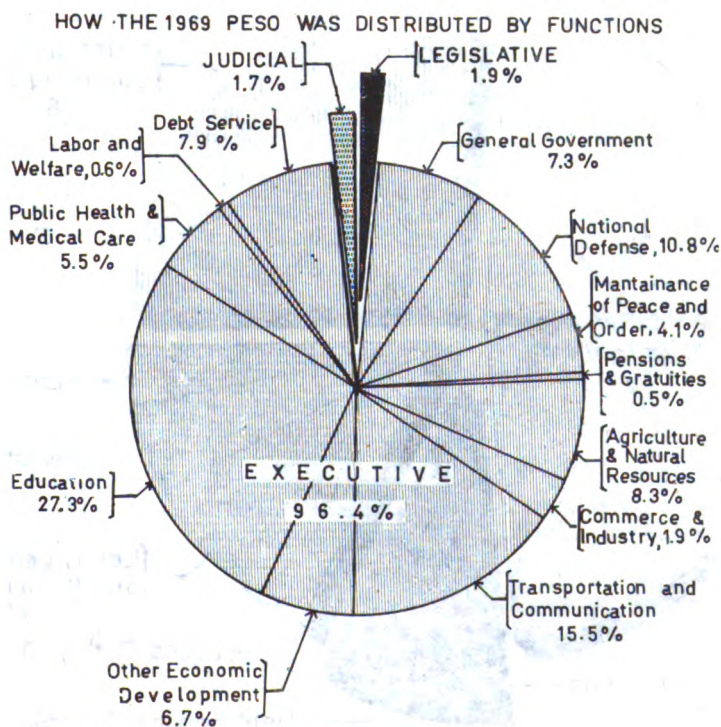
Table XXIII.11.—HOW THE 1969 PESO WAS DISTRIBUTED BY FUNCTIONS

(In Thousand Pesos)				
Function	Total	General Fund	Special Fund	Bond Fund
<b>TOTAL</b> .....	<b>P3,596,724 *</b>	<b>P3,018,126</b>	<b>P540,096</b>	<b>P132,513</b>
<b>LEGISLATIVE</b> .....	<b>P 70,201</b>	<b>P 70,201</b>	<b>-</b>	<b>-</b>
<b>EXECUTIVE</b> .....	<b>P3,464,760</b>	<b>P2,884,303</b>	<b>P539,931</b>	<b>P132,498</b>
Government, General .....	262,199	242,632	18,297	1,708
National Defense .....	386,112	374,488	13,625	-
Maintenance of Peace and Order .....	140,219	138,195	2,024	-
Pensions and Gratuities .....	18,765	18,765	-	-
Agriculture and Natural Resources ..	299,435	250,742	25,733	28,430
Commerce and Industry .....	69,740	67,636	3,229	50
Transportation and Communication ...	556,692	104,767	334,378	101,651
Other Economic Development .....	242,685	213,478	33,144	5
Education .....	983,742	973,544	70,069	307
Public Health and Medical Care .....	196,663	188,269	8,047	347
Labor and Welfare .....	22,609	20,826	2,447	-
Debt Service .....	283,940	254,962	28,978	-
<b>JUDICIAL</b> .....	<b>63,762</b>	<b>63,622</b>	<b>125</b>	<b>15</b>

\* Inter-fund transfers in General, Special and Bond Funds Eliminated in Consolidated total.

Source: Digest of Annual Report, GAO, 1969.

FIGURE XXIII.5



SOURCE: DIGEST OF ANNUAL REPORT, GAO, 1969



## Expenditures by Nature of Expenses

The expenditures stated in the previous topic are further classified for purposes of budgeting and accounting to the nature of expenses. Table XXIII.12 shows how the 1969 pesos was distributed according to the nature of expenses. Personal services constituted the major portion of 47.10 percent with a total of P1,694,986 thousand followed by maintenance and operating expenses with 26.48 percent, while the others such as land, land improvements and structures outlay garnered 9.96 percent, debt service 7.89 percent, investment outlay 4.44 percent, equipment outlay 2.97 percent, loans outlay .21 percent, and transfer to other funds reached a meager portion of 34,056 thousand or .95 percent as shown in Figure XXIII.6.

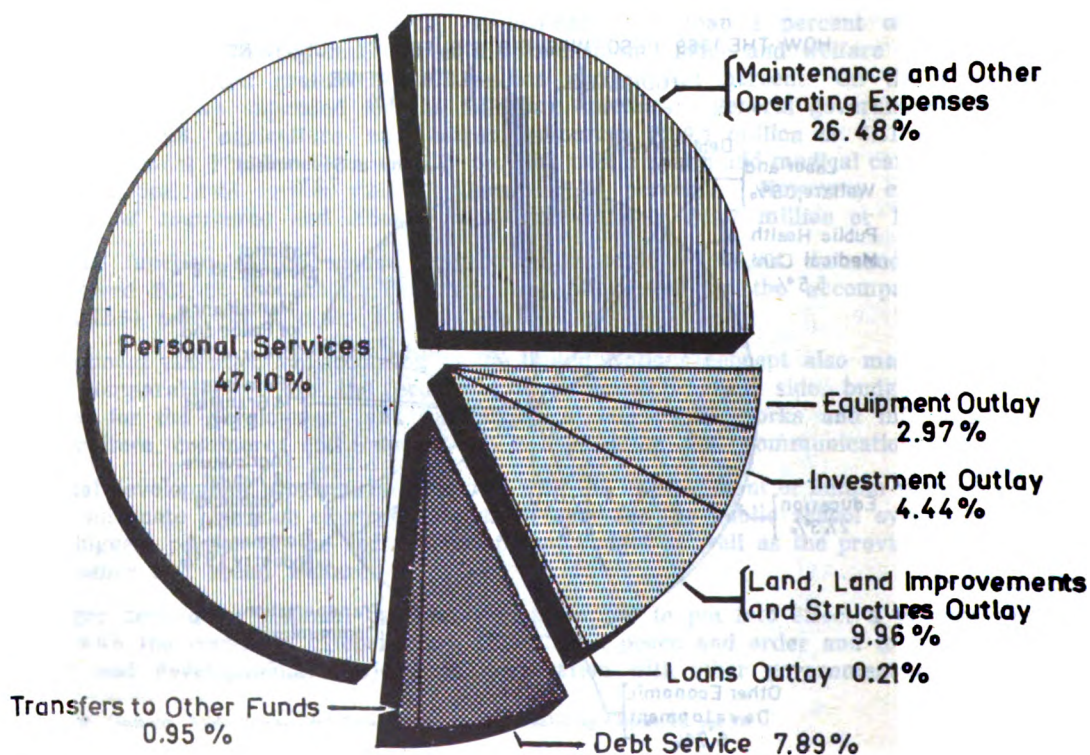
Table XXIII.12.—HOW THE 1969 PESOS WAS DISTRIBUTED BY NATURE OF EXPENSES

(Value In Thousand Pesos)					
Object Class	Total	Per cent Distribution	General Fund	Special Fund	Bond Fund
<b>TOTAL .....</b>	<b>P3,596,724 *</b>	<b>100.00</b>	<b>P3,018,186</b>	<b>P540,056</b>	<b>P38,482</b>
Personal Services .....	P1,694,986	47.10	P1,574,075	P120,911	-
Maintenance and Other Operating Expenses .....	952,776	26.48	730,391	280,145	2,238
Equipment Outlay .....	106,964	2.97	56,858	36,484	13,622
Investment Outlay .....	159,947	4.44	120,224	11,896	27,827
Land, Land Improvements and Structures Outlay ..	358,416	9.96	138,107	131,501	88,728
Loans Outlay .....	7,624	.21	-	7,642	-
Debt Service .....	283,940	7.89	254,952	28,978	-
Transfers to Other Funds .....	34,056	.95	123,510	2,418	100

\* Inter-fund transfers in General, Special and Bond Funds Eliminated in Consolidated Total.

Source: Digest of Annual Reports, GAO, 1969.

FIGURE XXIII.6  
HOW THE 1969 PESO WAS DISTRIBUTED  
BY NATURE OF EXPENSES



SOURCE: DIGEST OF ANNUAL REPORTS, GAO, 1969.

## ASSETS, LIABILITIES AND SURPLUS

Table XXIII.13, presents the comparative summary statements of assets, liabilities and surplus of the three major funds (totals) as of June 30, 1969 and June 30, 1968.

The ratio of the combined current assets of the three funds in the sum of ₱3,584.95 million to their combined current liabilities of ₱3,609.22 million of June 30, 1969 was .99 to 1. This means that, for every peso owed by the National Government on June 30, 1969, it had ₱0.99 worth of assets readily convertible to cash to answer for such liability.

Of the total cash of ₱1,020.57 million indicated in the combined balance accounts for the three funds, ₱870.89 million represented cash distributed as follows: in the hands of collecting officers (₱238.42 million), disbursing officers (₱411.68 million), and other officers (₱220.79 million). The aggregate of the outstanding cash advances of ₱632.47 million of these officers appeared to be unusually big. It is highly probable however, that 70 percent to 90 percent of the cash advances has already been disbursed in payment of an equivalent amount of obligations as of June 30, 1969.

The actual cash in the National Treasury on June 30, 1969 totalled ₱655.49 million, the location and composition of which were as follows:

### LOCATION

Treasury Vault .....	₱ 6,707,907.52
Central Bank of the Philippines .....	232,714,334.38
Philippine National Bank .....	365,889,063.87
Other Banks — Time Deposits .....	38,338,744.41
Treasury Field Cashier .....	11,844,084.62
<b>T O T A L .....</b>	<b>₱655,494,134.80</b>

### COMPOSITION

General Fund .....	₱ 52,651,282.32
Special Fund .....	443,403,305.02
Bond Fund .....	21,273,440.19
Fiduciary Fund .....	116,083,406.42
Depository Fund — —	
Money Order .....	(22,508,380.40)
Other Depository Funds .....	1,488,301.25
Sinking Fund .....	34,679,863.16
Unclassified .....	8,422,916.84
<b>T O T A L .....</b>	<b>₱655,494,134.80</b>

Receivables aggregated ₱1,305.49 million, of which ₱673.09 million represented inter-bureau receivables, ₱215.03 million due from government-owned or controlled corporations, ₱58.07 million due from local government and ₱359.30 million due from private parties. Of the ₱359.30 million due from private parties, ₱300.99 million arose mostly from the sale of reparation goods on the installment plan as authorized by law.

Fixed assets consisting of land, land improvements and structures amounted to ₱3,803.55 million. These are in the form of building sites, roads, bridges, harbors, wharves, buildings and other structures, river control works, irrigation system, waterworks systems, artesian wells and other public works.

Permanent and long term investments consisting mostly of financial aids or subsidies to government-owned or controlled corporations given in the form of advances or loans and/or subscriptions to their capital stock, had reached a total of ₱2,450.86 million.

On the other hand, the National Government was indebted to the public and other parties in the sum of ₱3,556.50 million as of June 30, 1969, broken down into ₱1,306.89 million in the form of bond issue, ₱2,059.31 million in the form of loans secured in and outside the country and other forms of indebtedness, and ₱190.30 million in backpay obligations. The status of the Philippines with regard to its public debt is discussed shortly.

**Table XXIII.13. COMPARATIVE SUMMARY STATEMENT OF ASSETS, LIABILITIES AND SURPLUS, FY 1968 AND 1969**  
(IN THOUSAND PESOS)

<b>I T E M S</b>	<b>1969</b>	<b>1968</b>
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash on hand and in Banks	1,020,566	1,133,653
Receivables	1,305,495	1,094,209
Inventories	775,725	326,339
Prepayments and Deposits	178,269	312,854
Other Current Assets	304,898	260,875
<b>TOTAL CURRENT ASSETS .....</b>	<b>3,584,954</b>	<b>3,127,930</b>
<b>FIXED ASSETS</b>		
Land, land improvement & equipment	3,803,552	3,352,022
Permanent & Long Term Investment	2,450,861	2,137,660
Public Domain (Nominal Value)	—	—
<b>TOTAL FIXED ASSETS .....</b>	<b>6,254,414</b>	<b>5,489,681</b>
<b>TOTAL ASSETS .....</b>	<b>9,839,368</b>	<b>8,617,612</b>
<b>LIABILITIES &amp; SURPLUS</b>		
<b>CURRENT LIABILITIES —</b>		
Accounts Payable	2,240,059	1,824,487
Accrued Liabilities	5,420	5,420
Miscellaneous Liabilities & Credits	1,156,495	687,987
Loans Payable	40,913	6,940
Depository Liabilities	10,358	27,479
Trust Liabilities	155,975	224,732
<b>TOTAL CURRENT LIABILITIES</b>	<b>3,609,219</b>	<b>777,045</b>
<b>FIXED LIABILITIES —</b>		
Bonded indebtedness	1,306,891	1,239,821
Less-Sinking Fund Reserve	307,982	273,897
<b>NET BONDED INDEBTEDNESS</b>	<b>998,909</b>	<b>965,924</b>
Non-bonded Indtebedness	1,702,923	1,324,974
Less-Sinking Fund Reserve	3,960	3,487
<b>NET NON-BONDED INDEBTEDNESS .....</b>	<b>1,698,963</b>	<b>1,321,518</b>
<b>TOTAL FIXED LIABILITIES .....</b>	<b>2,897,872</b>	<b>2,287,441</b>
<b>TOTAL LIABILITIES .....</b>	<b>6,307,092</b>	<b>5,064,487</b>
<b>SURPLUS —</b>		
Current Surplus	(32,588)	350,882
Invested Surplus	3,564,864	3,202,243
<b>TOTAL SURPLUS .....</b>	<b>3,532,276</b>	<b>3,553,125</b>
<b>TOTAL LIABILITIES &amp; SURPLUS .....</b>	<b>9,839,368</b>	<b>8,617,612</b>

Source: Digest of the Annual Report of the GAO.

## PUBLIC DEBT

Philippine public debt consists of all claims against the government which may be payable in goods or services, but usually in cash, to foreign governments or individuals or to persons, natural or juridical, within the country. The transaction responsible for these obligations may be (1) purely financial, i.e., loans or advances extended to the Philippine Government, its branches, agencies and instrumentalities, and (2) services rendered or goods delivered to the Government for which certificates, notes or other evidences of indebtedness have been issued to the creditor. The exceptions to this broad definition of the public debt are backpay obligations to prewar government employees. These particular obligations arose when, by an Act of Congress, the Government, subject to certain conditions, bound itself to pay back salaries to said employees after the lapse of a given number of years, although no actual services had been rendered in consideration of such monthly benefits. Claims and obligations originating from commercial and trading transactions (as distinguished from purely financial operations) in the course of normal budgetary operations are treated as outside the framework of this definition and are, therefore, not included in the public debt.

To fill the gap between expenditures and revenues the government has to borrow because:

1. Revenue measures enacted by the last Congress are insufficient to meet expansion and improvement of services due to increased population;
2. Supplemental appropriation authorizations by Congress did not provide funding sources;
3. Cost of government had increased due to price changes; and
4. More funds are needed to accelerate economic development.

### Legal Bases

The government incurs indebtedness under the following Congressional authorizations:

1. R.A. No. 265 which authorizes the Central Bank to extend overdraft line to the government for budgetary purposes;
2. R.A. No. 1000, as amended by R.A. 4861 which authorizes the flotation of Public Works and Economic Development (PW & ED) bonds;
3. R.A. No. 245, which authorizes the issuance of treasury notes, bills, and certificates of indebtedness;
4. R.A. No. 16 as amended by R.A. 4860 which authorizes foreign borrowings;
5. R.A. No. 1400 which authorizes issuances of negotiable land certificates;
6. Various corporate chapters which empower government corporations to issue their own bonds, i.e., NPC, NAWASA, NIA bonds.

### Public Debt and Government Debt

The term "public debt" is not to be confused with "government debt" inasmuch as they convey two different concepts and are, therefore, not used interchangeably. The first refers to obligations incurred by the government and all its branches, agencies and instrumentalities including government monetary institutions. On the other hand, "government debt" refers to and only includes obligations of the Government, its branches, agencies and instrumentalities as defined in the succeeding paragraph, but exclusive of debts of government monetary institutions not guaranteed by the National Government.

### Government Defined

As used in the series, the term "Government" carries the meaning traditionally attached to it, i.e., all entities and agencies charged with the political administration of the country as well as all other organizations and agencies vested by law to carry out government policies which are non-political in character. The term, therefore, includes the following:

- a. The National Government, which includes its different branches and the various departments and instrumentalities under them;
- b. The other political subdivisions of the Government, viz., the provincial, municipal and city government; and



- c. Wholly-owned and/or controlled government corporations which have been created by law to pursue governmental policies that contain important financial and monetary implications. These entities are not conferred with functions of a political nature and, in addition, they are distinguished from other governmental bodies in that they enjoy a degree of financial autonomy withheld from departments and bureau, such as independent borrowing power, establishment of a revolving fund and freedom from budgetary control.

### **Inter-Agency Borrowings**

It is implicit from the above delineation of scope of "government" that inter-agency borrowing or loans extended by one government entity to another are excluded from governmental debt, inasmuch as they represent claims within the Government which are cancelled out in the consolidation of the accounts

### **Debt Transactions of Monetary Institutions**

A further exception is made with regard to debt transactions of certain government entities in view of functions peculiar to them. Thus while the Central Bank of the Philippines (CB), the Philippine National Bank (PNB), the Philippine National Cooperative Bank (PNCB), and the Philippine Veterans Bank rightfully belong to the Government sector, they are excluded from the definition of government. The loans originating from these institutions in favor of the Government are thereby excluded as part of government debt.

### **External Debt of Government Monetary Institution**

Only debts of government monetary institutions which are guaranteed by the National Government are treated as part of government debt where such guarantee is unconditional and pledges the full faith and credit of the Republic of the Philippines. However, in computing the public debt, external obligations of government monetary institutions which are not guaranteed by the government are included and are so identified in the series.

### **Status of Guaranteed Debt**

Obligations guaranteed by the National Government are included as part of government debt, although some of these obligations are direct indebtedness of government monetary institution which, by above definition, are excluded from the series. Similarly, obligation which carry the guarantee of an entity of the Government are included in the series as they represent contingent claims on the resources of the particular entity.

### **Public Debt Classified by Periods of Maturity**

The classification of the public debt by periods of maturity is made without regard to the original terms stipulated in the loan agreements. It is designed to show what portion of the aggregate debt is due and payable within a specific period and thereby anticipate the claims on the financial resources of the government within a given time. The periods into which the maturing obligation of the government are grouped in the series are as follows:

- a) **Short term** — includes loans or portions thereof which are payable within one year;
- b) **Middle term** — includes loans or portions thereof which are payable after one year but not beyond a period of five years; and
- c) **Long term** — includes loans or portions thereof which are due and payable beyond a period of five years.

### The Country's Indebtedness

The Philippines being one of the fast developing countries, has to resort to some borrowing to adequately meet its obligations in the expansion of its economic and social development programs. The National Government incurred, as of June 30, 1966, bonded indebtedness totalling some ₱853.0 million and non-bonded indebtedness in the form of loans payable in the sum of ₱1,508 million as can be seen in Table XXIII.14. The per capita public debt as of June 30, 1966 based on an estimated population of 32.5 million and outstanding public debt of ₱3,726.06 million was ₱114.65. In 1967, public borrowing reached the ₱4,290.7 million mark showing an increase of ₱56.5 million over the public debt on June 30, 1966. Based on an estimated population of 34.66 million in 1967, the public debt per capita on June 30, 1967 was ₱123.79 or an increase of ₱9.14. Public debt increased further to ₱5,029 million in 1968, ₱5,789 million in 1969 and to ₱7,122 million in 1970.

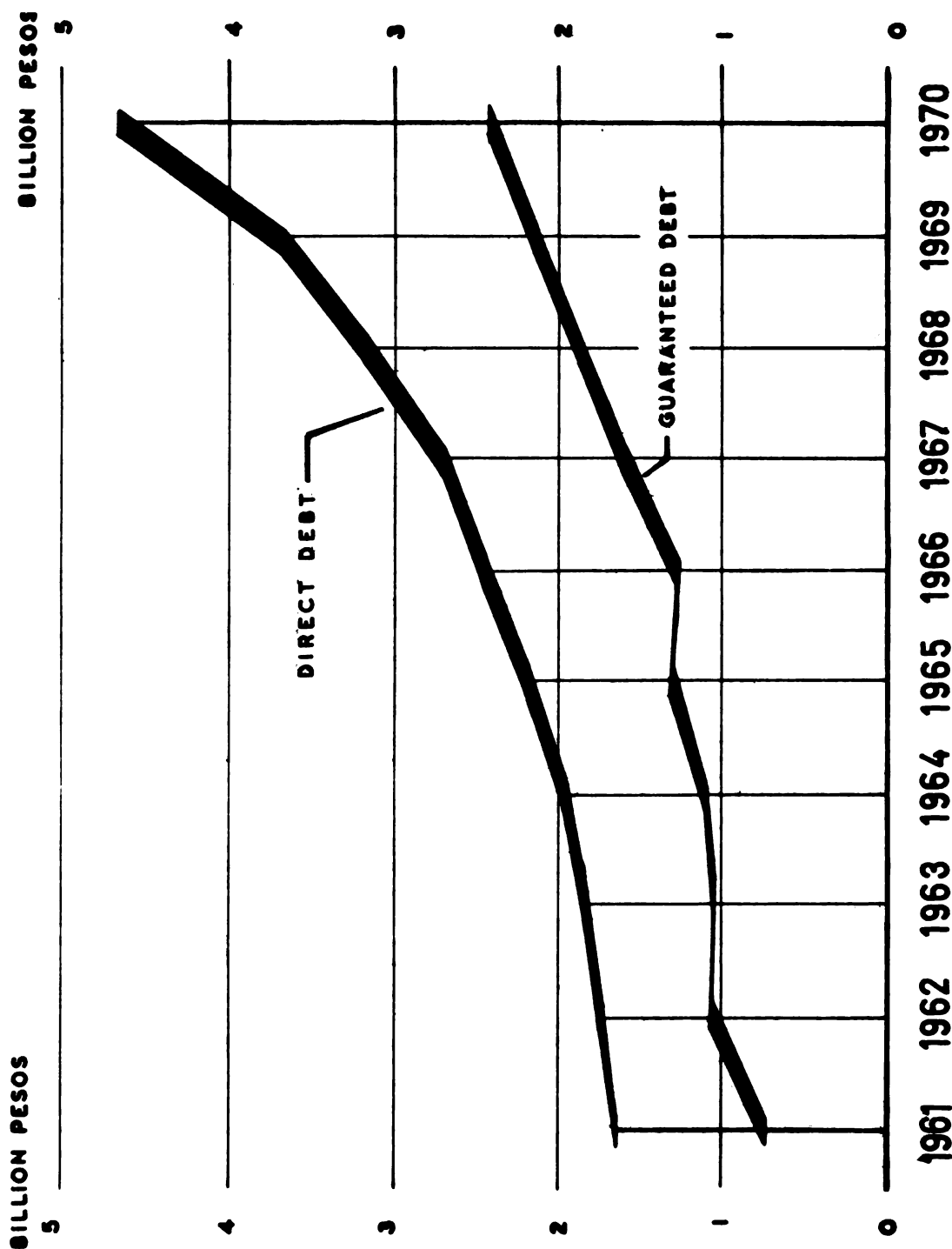
The accompanying graph clearly shows the growth of public debt from 1961-1970 which, although utilized primarily to finance infrastructure projects, does not really speak well of the Philippine economy.

Table XXIII.14.—DEBT OF THE REPUBLIC OF THE PHILIPPINES AS OF JUNE 30

I T E M	(In Million Pesos)									
	1966		1967		1968		1969		1970	
	Value	Per cent distribution	Value	Per cent distribution	Value	Per cent distribution	Value	Per cent distribution	Value	Per cent distribution
TOTAL .....	3,726	100.00	4,291	100.00	5,029	100.00	5,789	100.00	7,122	100.00
1. Direct Debt .....	2,447	65.67	2,695	62.81	3,165	62.93	3,675	63.48	4,713	66.18
a. National Government ..	2,361	63.36	2,603	60.66	3,060	60.85	3,536	61.43	4,388	61.42
1) Bonded .....	853	22.89	944	22.00	1,239	24.66	1,306	22.56	1,366	19.18
Internal .....	797	21.39	892	20.79	1,189	23.64	1,239	21.75	1,319	18.52
External .....	56	1.50	52	1.21	50	.99	48	.83	47	.66
2) Non-Bonded .....	1,508	40.47	1,659	38.66	1,821	36.21	2,230	38.87	3,222	45.24
Internal .....	1,077	28.90	1,221	28.45	1,272	25.39	1,625	28.07	2,306	32.19
External .....	431	11.57	438	10.21	549	10.92	604	10.78	716	10.05
b. Local Government .....	86	2.31	92	2.14	105	2.09	119	2.05	125	1.76
1) Bonded .....	3	.08	3	.07	3	.06	3	.05	3	.04
Internal .....	3	2.23	3	2.07	3	-	3	-	3	-
External .....	-	-	-	-	-	-	-	-	-	-
2) Non-Bonded .....	-	-	-	-	102	2.03	116	2.00	122	1.72
Internal .....	-	-	-	-	102	-	-	-	116	1.63
External .....	-	-	-	-	-	-	-	-	6	.09
2. Guaranteed Debt .....	1,279	34.33	1,596	37.19	1,864	37.07	2,114	36.52	2,409	33.82
a. Government Corporation ..	1,279	-	1,596	-	1,864	-	2,114	-	2,409	-
1) Bonded .....	528	14.17	953	22.21	1,216	24.18	1,466	25.32	1,731	24.30
Internal .....	528	-	953	-	1,216	-	1,466	-	1,731	-
External .....	-	-	-	-	-	-	-	-	-	-
2) Non-Bonded .....	751	20.16	643	14.98	648	12.89	648	11.20	678	9.52
Internal .....	24	.65	24	.56	24	.48	23	.40	24	.34
External .....	727	19.51	619	14.42	624	12.41	625	10.80	654	9.18

Source of Basic Data: GAO Annual Reports.

FIGURE XXIII. 7  
GROWTH OF PHILIPPINE PUBLIC DEBT : 1961-1970



SOURCE: 1961-1970 ANNUAL REPORT, GENERAL AUDITING OFFICE

## G L O S S A R Y

**Advance Sales Tax** — a tax paid by importers on articles or goods received or purchased from without the Philippines for the purpose of sale, barter, exchange or similar transactions or for use in manufacture or preparation of articles for sale, barter, exchange or similar transactions and are to form part thereof.

**Ammunition** — loaded shell for firearm. (Sec. 290, National Internal Revenue Code, NIRC).

**Amusement Tax** — a levy on the privilege to enter in any place of amusement such as theaters, boxing exhibitions, night clubs, race tracks and others.

**Arrastre Charge** — the amount which the owner, consignee, or agent has to pay for the handling, receiving and custody of the imported or exported articles or the baggage of the passengers. (Sec. 3101, RA 1938).

**Berthing Charge** — the amount assessed against a vessel for mooring or berthing at pier, wharf, at any part in the Philippines; or for mooring or making fast to a vessel as berthed; or for coming or mooring within any slip, channel, basin, river, or canal under the jurisdiction of any port of the Philippines. (See 2901, RA 1937).

**Compensating Tax** — a tax imposed on all persons residing or doing business in the Philippines who purchase or receive goods from abroad for their own use or consumption and not for sale, barter, or exchange. (See 190, NIRC).

**Corporation, Domestic** — a corporation created or organized in the Philippines under its laws. (See 84 (c) NIRC).

**Corporation, Foreign** — a corporation created or organized in a foreign country under its laws. (See 84 (d), NIRC).

**Dealer** — when used in connection with motor vehicle fees, includes every person, association, partnership or corporation making, manufacturing, constructing, assembling and setting up motor vehicles for sale and every such entity acting as agent for the sale of motor vehicles, keeping the same in stock or selling same or handling with the view of trading the same. (Art. 11, Sec. 8 (g), Act 3992).

**Duty** — a tax imposed on the importation of goods.

**Duty, Ad Valorem** — a customs duty based on the value of the goods. Such a duty is a fixed percentage of the foreign or domestic valuation of imported goods. (Sloan & Zurcher, Dictionary of Economics).

**Duty, Countervailing** — the duty imposed on articles, upon the production, manufacture or export of which any bounty, subsidy or subvention is directly or indirectly granted in the country of origin and/or exportation, and the importation of which has been determined as likely to materially injure an established industry, or prevent or considerably retard the establishment of an industry in the Philippines. (See 302 (a), RA 1937).

**Duty, Discriminatory** — the duty imposed upon articles of a foreign country which imposes any unreasonable charge, exaction, regulation, or limitation upon any growth or product of the Philippines or discriminates in fact against the commerce of the Philippines by law or administrative regulation or practice in such a manner as to place it at a disadvantage with the commerce of any foreign country. (Sec. 304 (a), RA 1937).

**Duty, Dumping** — the duty imposed on a specific kind or class of foreign article which is being sold or is likely to be sold for exportation to, or in the Philippines at a price less than the fair value (i.e. its foreign market value or, in absence thereof, its cost of production), the importation or sale of which might injure or prevent the establishment of, or is likely to injure an industry in the Philippines. (Sec. 301 (a), RA 1937).

**Duty, Marking** — the duty imposed on imported articles and containers which have not been properly marked in any official language of the Philippines as to indicate to an ultimate purchaser in the Philippines the name of the country of origin of the articles. (Sec. 303 (a), RA 1937).

**Engaged in the Trade of Business in the Philippines** — the regular transaction of business and the performance of personal service; casual or incidental transaction of business excluded. (Sec. 8 Reg. No. Department of Finance).

**Estate Tax** — a tax on the privilege of a decedent to transmit his estate to his lawful heirs and beneficiaries.

**Exporter's Sales Price** — the price of an imported articles at which such article is sold or agreed to be sold in the Philippines, before or after the time of exportation, by or for the account of the exporter. (Sec. 301 (e), RA 1937).

**Firearm or Arm** — rifles, muskets, carbines, shotguns, revolvers, pistols and other deadly weapons from which a bullet, ball, shot shell, or other missile may be discharged by means of gunpowder or other explosives as well as air rifles coming under regulation of the Provost Marshall General. The barrel of any firearm is considered a complete firearm. (Sec. 290, NIRC).

**Fixed Tax, Graduated** — a tax imposed on the annual sales of persons not subject to the payment of percentage tax under Sections 184, 185, 186, 191, 192 and 195 of the National Internal Revenue Code and those not subject to a district and separate fixed tax.

**Franchise** — a privilege granted by the state to a person, corporate or otherwise, to operate a public utility.

**General Fund** — this fund is credited with all receipts which are not by law and/or contractual agreement applicable to specific purposes, and is charged with expenditures that are payable out of appropriations of any money in the Treasury and depositors to which the legislative body may choose to apply it. The General Fund defrays the main bulk of the expenditures of the government with the income coming primarily from tax revenues.

**Special Fund** — These have been created for a special purpose and object and are credited with receipts that are earmarked by law for limited purposes. Some special funds require annual appropriations by Congress, while others are automatically available under law. It is constituted out of moneys specially assessed, levied and collected for special purposes.

**Bond Fund** — comes from the sale of public works and economic development bonds and corporate bonds. They are spent for capital improvement and self-liquidating projects.

**Fiduciary Funds** — are derived from income — producing projects financed by fund entrusted to the government. They are a form of Trust Fund. They can be used only for the purpose for which they have been created.

**Gift Tax** — a tax on the privilege to transfer property without consideration and a tax on the privilege to receive property without consideration.

**Gross Annual Sales** — for purposes of the graduated annual fixed tax, include both cash and credit sales after deducting the sales returns and trade/cash discounts/allowances. (BIR Ruling, April 26, 1956).

**Gross Estate** — the total value of all property, whether real or personal, tangible or intangible, the beneficial ownership of which was in the decedent's hand at the time of his death, except real property situated outside of the Philippines, (Sec. 88, NIRC).

**Gross Selling Price** — when used in connection with the sales tax on locally manufactured articles, is the total amount of money or its equivalent which the purchaser pays the vendor to receive or get the goods, (BIR General Circular No. 431, July 29, 1939). In the case, however, of articles sold on installment term of at least twelve months, gross selling price includes the price at which an article is offered for sale on cash term to the public without any discount and/or rebate during the tax period, (Sec. 183 (c), NIRC).

**Gross Tonnage** — the total weight of the vessel. (Sec. 3301 (a) RA 1939).

**Gross Value of Milled or Manufactured Products** — the actual selling price or the prevailing market price in the locality at the time of the removal of the milled or manufactured products, including the products of the raw materials from which said articles are produced or manufactured, (Sec. 189, NIRC).

**Gross Weight** — when used in connection with motor vehicle fees, includes the measured weight of a motor vehicle in running condition, plus the maximum allowable carrying capacity in merchandise, freight or passenger, as determined by the Director of Public Works or his deputies. (Act. 11, Sec. 3 (i), Act 3992).

**Income, Gross** — gains, profits and income derived from salaries, wages or compensation for personal service of whatever kind and in whatever form paid, or from profession, vocations, trades, business, commerce sales or dealing in property, whether real or personal, growing out of the ownership or use of or interest in such property; also from interest, rents, individuals, securities, or the transactions of any business carried on for gain or profit, and income derived from any source whatever. (Sec. 29 (a), NIRC).

**Income, Net** — the gross income minus expenses, taxes, losses and other deductions allowed under Sec. 30, NIRC. (Sec. 28, NIRC).

**Inheritance Tax** — a tax on the privilege of the heirs or beneficiaries to receive the estate of a deceased person. (BIR Primer on Estate, Inheritance and Gift Taxes).

**Luxury Items** — automobile chassis and bodies, jewelry, perfumes, essences, toilet water, cosmetics, dice and majhong set; beauty parlor equipment and accessories, polo mallets and balls, golf bags, clubs and balls, chess and checker boards and pieces. (Sec. 184, NIRC).

**Motor Vehicles** — all vehicles using the public highways, if propelled by any power other than muscular power, but excepting road rollers, trolley cars, streetsweepers, sprinklers, lawn mowers, bulldozers, graders and fork-lifts and cranes if not used on public highways or vehicles which run only on rails or tracts, tractors, traction engines of all kinds used exclusively for agricultural purposes. (Act. 11, Sec. 3 (a), Act 3992).

**Net Estate** — the gross estate less allowable deduction provided under Sec. 89, NIRC.

**Passenger Automobiles** — all pneumatic-tired vehicles of types similar to those usually known under the following terms: touring car, command car, speedster, roadster, and jeep, cycle car (except motor wheel and similar small outfits which are classified with motorcycles), coupe, landulet, closed car, limousine, cabriolet, sedan, etc. (Art. 11, Sec. 8, (b) Act 3992).

**Percentage Taxes** — ad valorem taxes computed on the basis of gross receipts, earnings or gross value.

**Personal Holding Company** — any corporation, other than a corporation specified in Sec. 64 (b) which, for the taxable year meets the gross requirement specified in Section 64 (a)1, and the stock requirement specified in Section 64 (2), of the National Internal Revenue Code. (Sec. 64, NIRC).

**Privilege Tax** — a levy or tax paid upon those desiring to engage in business or pursue an occupation profession. The privilege tax is also referred to as fixed tax. (BIR Primer on Business and Occupation Taxes).

**Public Debt** — the total governmental debt of any country including that of the Central Government and of political subdivision, as distinct from the debt of private persons, corporate or natural. The debt of the central government as distinct from the political subdivision of the nation is usually referred to as the national debt. (Dictionary of Economics).

**Real Property Tax** — an ad valorem tax on property, including land, buildings, machinery and other improvements. (Sec. 2, RA 470 as amended).

**Residence Tax** — a tax based on per hand or per unit of a member or class of person without regard to property ownership and one which is based on property ownership.

**Royalties** — payments reserved by the grantor of a patent, lease of a mine, or similar right, and payable proportionately to the use made of the right by the grantee.

**Semi-luxury goods** — luggage, trunks, valises, watches and clocks, fishing rods and reels, articles of which celluloid is the chief component material, refrigerators of all types, beverage coolers, ice-cream cabinets, water coolers, food and beverage storage cabinets, pianos, phonographs, combination radio and phonograph sets, television sets, ammunition, electric fans and air circulators (except for industrial use), electric gas and oil water heaters, electric flat-iron, unexposed photographic films (except X-ray tube signs and electric advertising devices), washing machines, air-conditioning units, mechanical lighters, upholstered furniture (except rattan), textiles, fountain pens, toys and playthings. (Sec. 185, NIRC).

**Special Import Tax** — a special levy temporarily imposed in lieu of the tax on the sale of foreign exchange on articles or products imported into the Philippines, the rate of which is graduated in accordance with the schedule for reduction. (Art. 1 "7", RA 1355).

**Specific Tax** — a tax which imposes a specific sum by the head or number or some standard of weight or measurement and which requires no assesment beyond a listing and classification of the subject to be taxed.

**Subsidy** — a financial assistance or its equivalent given for a service which, though uneconomic from a profit-making standpoint, is considered essential to the public welfare. (Sloan & Zurcher, Dictionary of Economics).

**Tonnage Due** — the amount paid by the owner, agent, operator or master of a vessel engaged in foreign trade coming to the Philippines, from a foreign port or going to a foreign port from the Philippines based on the net tonnage of the vessel or weight of the articles discharged or laden. (Sec. 2801, RA 1937).

**Virginia-type Leaf Tobacco** — any kind of leaf tobacco, steamed or unsteamed, or scrap grown out of Virginia Tobacco seed or seeds, allied tobacco, such as Burley, Georgia, Turkish and the like, whether imported or locally-grown, used in the manufacture of cigarettes, through whatever process of curing it has undergone. (BIR Ruling, April 11, 1955).

## CHAPTER XXIV — TRENDS IN ECONOMIC AGGREGATES

Growth is instrumental to development. The rate of growth that can be achieved by the economy over any period of time is affected by the country's economic structure, and changes in this structure are necessary to sustain growth. Every aspect of the economic structure, such as the rates of savings and investment, the type of commodity produced and consumed, the patterns of trade and the use of capital and labor, must continually be adopted to the available manpower, physical resources, and prospects for development.

A proper understanding of the country's economic structure and other related factors such as population change and political and social stability is therefore essential in formulating a development policy that would help achieve for the Philippines a higher growth rate within a relatively short span of time.

### THE COUNTRY'S ECONOMIC PERFORMANCE

The country's economic transactions over any period of time are valued, owing to the impossibility of aggregating heterogeneous goods and services. Economic aggregates are therefore estimated in Philippine currency (pesos) at market or producer's price. In order to minimize the adverse effects of price changes and thus ensure comparability, these values are deflated at constant prices.

The Gross National Product has been the most frequently used measure of the country's economic performance. However, any increase in GNP does not necessarily imply growth simply because it does not consider changes in the country's population. A more reliable measure indicative of growth is the per capita income, which takes into account population change.

#### Measures of the Economy's Growth

##### Gross National Product (GNP)

The Gross National Product refers to the amount of final goods and services produced in the country during a given period of time. It includes the net value added of the different sectors composing the economy, including depreciation allowances and indirect taxes less subsidies.

Gross national product is valued at current and at constant prices in order to minimize the effects of price fluctuations. It may readily be observed from the table given below that the value of the GNP in constant prices is lower than those valued in current prices, throughout the period 1961-1970. This implies the steadily increasing prices during the given period. The effect of price changes on the value of the GNP may be further gauged by the high growth rates experienced annually (averaging 12.15 per cent) when the GNP is valued at current prices as compared to its rate of growth (an average of 6.29 percent) when valued at constant 1961 prices. For instance, while GNP at current prices amounted to ₱39.6 billion in 1970, GNP valued at constant prices reached only ₱24.6 billion. The former was equivalent to an increase of 19.79 percent, the highest annual growth rate during the period under study, while the latter, only an increase of 4.64 per cent, which was a deceleration from the previous year's rate of increase of 6.7 per cent. Between 1961 and 1970 GNP at current prices increased by more than three times while GNP at constant prices barely doubled. Although the economy may be said to be growing based on these figures, the rate at which the economy is developing is relatively low compared with its development potentials.

The production activities of the seven major sectors of the economy contributed significantly to the GNP. Agriculture, fishing and forestry contributed about one-third to the total net value added averaging 31 percent, during the period under review. The ₱6,497 million net value



Table XXIV.1 - GROSS NATIONAL PRODUCT: 1961-1970 <sup>a/</sup>  
(At current and constant prices)  
(In million pesos)

Year	At Current Prices		At Constant Prices	
	Value	Growth Rate	Value	Growth Rate
1961	14,209	-	14,209	-
1962	15,721	10.64	15,086	6.17
1963	18,135	15.36	16,199	7.38
1964	19,459	7.30	16,595	2.44
1965	21,070	8.28	17,504	5.48
1966	23,246	10.33	18,560	6.03
1967	25,425	9.37	19,665	5.95
1968	29,965	17.86	21,989	11.82
1969	33,097	10.45	23,463	6.70
1970	39,647	19.79	24,551	4.64
	Average = 12.15		6.29	

a/ NEC figures deflated to 1961 using the given implicit price indices.

Source: NEC, OSCAS, Statistical Reporter: Vol. XIII, No. 1 and No. 2, Vol. XV, No. 2.

added of this sector in 1970 which formed 31.48 per cent of the net domestic product, could have been higher were it not for the unfavorable climatic conditions during the year. The relatively higher percentage contribution of this sector during the period under review indicates that the set-up of the economy is still predominantly agricultural. However, as the country moves toward industrialization, the sectoral share of agriculture is expected to decrease while that of the other sectors would increase.

The services sector accounted for a mean percentage contribution of 25.26 to the net domestic product during the last decade. For 1970, its total net value added was ₱5,041 million. This reflects an increase of 3.47 per cent over that of the previous year, which is comparatively lower than the 6.10 percent increase recorded between 1968 and 1969. This was due to the increase in the value added of the professional, educational, recreational, personal and other services in 1970, and the decline in value added manifested by the government services sector.

The manufacturing sector contributed about 19.00 percent of the net value added during the period 1961 to 1970. Although it realized a 5.94 percent increase in 1970 relative to the net value added during the previous year, this increase was a deceleration, compared to a 6.58 percent increase in the same sector between the preceding two-year period (1968-1969). This may be attributed to the "floating exchange" rate system which discouraged any further expansion of the import-dependent industries.

The volume of activities recorded for the other sectors increased moderately over the years, except the mining and quarrying sector which exhibited considerable increases, particularly during the second half of the period under study (1965-1970), in which the annual increase ranged from 11.87 percent to 17.65 percent. These remarkable increases are mostly due to the substantial gains in copper, chromite, and iron mining as well as stone quarrying.

The net value added of these sectors are aggregated to form the net domestic product. Owing to the sizable and moderate increases in each sector, the net domestic product likewise followed an increasing trend although at a fluctuating and decelerating rate. In 1970, the net domestic product realized was ₱20.68 billion or an increase of 4.20 percent over that of 1969, a rate which compares unfavorably with the 11.91 per cent increase between 1967 and 1968.

A similar trend in the national income is observed after the total earnings of the factors of production are adjusted for net factor income payments abroad during the last decade. It reached ₦20.27 billion in 1970, thus exhibiting a 3.26 percent increase over that in 1969. This rate of increase is relatively lower than the 6.03 percent rate estimated between 1968 and 1969.

Viewed from the expenditure side of the national income accounts, personal consumption expenditure was observed to form a considerable percentage of the demand for GNP, as may be gleaned from Table XXIV.2.

Table XXIV.2 - NATIONAL INCOME BY INDUSTRIAL ORIGIN AT CONSTANT PRICES: 1961-1970 <sup>a/</sup>

(In million pesos)										
Industry Group	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Agriculture, fishery and forestry <sup>1/</sup>	3,916	4,082	4,399	4,277	4,599	4,864	5,233	5,955	6,213	6,497
Mining and Quarrying	137	138	141	146	160	179	204	241	272	320
Manufacturing	2,349	2,474	2,674	2,721	2,745	2,956	3,083	3,649	3,889	4,120
Construction	446	411	502	544	614	599	632	649	686	518
Transportation, communication, storage and utilities <sup>2/</sup>	587	609	641	663	702	734	770	811	847	892
Commerce <sup>3/</sup>	1,898	2,040	2,131	2,222	2,322	2,454	2,618	2,912	3,069	3,249
Services <sup>4/</sup>	3,116	3,323	3,555	3,729	3,937	4,111	4,267	4,592	4,872	5,041
Net Domestic Product at factor cost or National Income	12,449	13,077	14,043	14,302	15,039	15,897	16,807	18,809	19,848	20,637
Net National Product at factor cost or National Income	12,334	12,994	13,962	14,210	14,938	15,778	16,649	18,516	19,633	20,273

<sup>1/</sup> Includes hunting due to the lack of available data.

<sup>2/</sup> Utilities include electricity, gas, water and sanitary services.

<sup>3/</sup> Includes wholesale and retail trade, banking and non-banking institutions, insurance and real estate.

<sup>4/</sup> Includes government, educational, medical, community, recreational, personal and other services.

<sup>a/</sup> NED figures deflated to 1961 prices.

Sources: NED, OSCAS, Statistical Reporter Vol. XIII, No. 1 and No. 2, Vol. XV No. 2.

The rate at which the consumption expenditures of the household sector increased slackened until 1966 but it gradually gained pace in 1967 with an increase of 4.47 per cent. However, it experienced and abrupt increase of 8.24 per cent in 1968, but this declined to 6.18 per cent in 1969 and finally to 3.90 percent in 1970. This suggests a slowing down in the buying activities of the household sector during the last three years.

Government consumption expenditures contributed only about 9 per cent of total expenditures during the period under study. The amount needed to sustain the needs of the government sector increased at varying degrees until 1969, but owing to fiscal restraints there was a decline of 4.59 per cent in the general government consumption expenditures in 1970. During this year, the expenditures aggregated ₦2,098 million as compared to ₦2,199 million recorded in 1969. The curtailment in salaries, wages, and other expenditures accounted for this decline.

The investments of business and industry continued to increase during the entire period, although lately caution was taken before venturing to invest, owing to the high cost of production and tight credit. This is reflected in the increase in the percentage share of gross domestic capital formation to the total expenditures on the GNP, rising from 18.92 percent to 21.71 percent in 1968, and the gradual decline observed during the subsequent years, from 21.11 percent to 20.55 percent.

In spite of the fluctuating trend of the value of exports during the period under study, exports of goods and services reached a record high of ₦3,622 million in 1970, or an increase of 36.47 percent over that in 1969. Imports of goods and services likewise increased during the same period, although at a relatively higher rate, thus aggravating the balance-of-payments position. From ₦2,029 million in 1961, the value of imports reached a remarkably high level of

Table XXIV.3 - GROSS NATIONAL PRODUCT BY EXPENDITURES, 1961-1970 <sup>a/</sup>

Type of Expenditure	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Personal Consumption Expenditures	11,430	11,928	12,360	12,822	13,291	13,799	14,416	15,604	16,968	17,215
General Government Consumption Expenditures	1,175	1,308	1,457	1,516	1,999	1,356	1,768	1,947	2,199	2,098
Gross Domestic Capital Formation	2,688	2,806	3,232	3,997	3,800	3,927	4,210	4,904	4,953	5,046
Net Exports	(381)	(1,207)	(574)	(929)	(799)	(288)	(1,380)	(2,099)	(1,901)	(1,600)
Exports of goods and services	1,648	1,638	1,998	2,185	2,554	3,202	2,969	2,629	2,654	3,622
Imports of goods and services	2,029	2,845	2,572	3,114	3,313	3,490	4,349	4,688	4,555	5,222
Expenditures on Gross Domestic Product	14,912	14,835	16,475	17,006	17,931	18,794	19,014	20,396	21,819	22,799
Net Income from abroad	(115)	(74)	(60)	(79)	(105)	(118)	(178)	(326)	(252)	(429)
Statistical Discrepancy	(588)	325	(216)	(332)	(332)	(116)	829	2,516	1,896	2,221
Expenditures on Gross National Product	14,209	15,086	16,199	16,595	17,504	18,560	19,665	22,586	23,463	24,591

<sup>a/</sup> NEC figures deflated to 1961 using the given implicit price indices.

Source: NEC, OSCAS, Statistical Reporter: Vol., XIII, No. 1 and No. 2, Vol. XIV, No. 2

Table XXIV.4 - PER CAPITA INCOME AND PERSONAL CONSUMPTION EXPENDITURES: 1961-1970

(In constant 1961 prices)

Year	Mid-year Population (in thousand)	Per Capita	
		Income	Personal Consumption Expenditures
1961	28,175	438	406
1962	29,002	448	411
1963	29,859	468	414
1964	30,750	462	417
1965	31,674	472	420
1966	32,633	484	423
1967	33,630	495	429
1968	34,665	534	450
1969	35,740	549	464
1970	36,852	550	467

Source: Estimated by the Bureau of the Census and Statistics using its mid-year population intercensal estimates and national income and personal consumption expenditures estimates of the National Economic Council presented in Tables XXIV.2 and XXIV.3

₱5,222 million in 1970. This resulted in an favorable balance of trade, with the gap widening to ₱2,059 million in 1968, but the unfavorable balance gradually declined to ₱1,901 million in 1969 and eventually to ₱1,600 million in 1970.

### Per Capita Income

A steadily increasing national income does not necessarily connote an increase in standard of living because population growth may run parallel to, or may surpass, the growth in aggregate output. This results in a declining or a constant per capita income, the increase in national income being diverted to support the additional population; hence, no rise in per capita living standards.

While between 1961 and 1970 the national income of the Philippines continually increased, the per capita income traced a different path. The average annual rate of increase in national income was 5.13 percent; this compares favorably to the mean annual percentage increase of 2.33 in per capita income. Between 1963 and 1964, national income increased by 1.78 percent while per capita income decreased by 1.28 percent. In 1969 to 1970, the per capita income barely increased in spite of the 3.26 percentage in national income among the same period. These suggest the impact of a 3.01 percent growth rate in population on the people's living standards. Such a population growth rate is due to the high birth rate, an average of 4.15 percent and a gradually declining death rate, 1.14 percent, for the same period.<sup>1</sup>

These demographic trends mean a lot more to the economy than a mere lowering of the per capita income. A substantial number of children contributes a negative worth to the economy. They ought to be spared a large percentage of the household income to sustain their basic needs until they become capable of supporting themselves. Considering the fact that the mortality rate is relatively high among children, the economy takes the risk of supporting people who may not even be part of the labor force. Furthermore, the rate of saving and investments decrease concomitantly with the increase in consumption expenditures of the economy when there is no proportionate increase in national income. Thus, what should have been allocated for improving the economy is used mainly to maintaining it.

The increase in population between 1961 and 1970 and the slight increase in per capita income realized through the years, which meant additional purchasing power, gave vent to increased personal consumption expenditures. While the latter's increase during the period under review was estimated at 1.41 per cent, its proportional share to the per capita income declined from about 93 percent to 85 percent. The increase in income per capita brought about a proportional share of consumption expenditures to national income, thus, the amounts channeled to saving or investment purposes slightly increased.

## A LOOK AT THE ECONOMY<sup>2</sup>

### Capital Investment

The rate of economic growth and development depends to a considerable extent on the availability of capital. Capital generates employment, production and further investment which are vital to the development process. A reasonable amount of capital should therefore pour into the economy's investment stream to uplift its status.

Between 1964 and 1971 capital investment of newly registered business organizations almost doubled. From ₱384.75 million in 1964, total capital investment increased to ₱670.18 million in 1971. However, this increase is mainly accounted for by the 53.02 per cent increase in investment realized between 1970 and 1971. Investment continued to pour into various fields of productive endeavors, particularly into commerce in which the investment recorded amounted to ₱331.5 million in 1971, or an increase of 49.46 per cent over that of the previous year. This relatively high ratio may be attributed to the large number of investors along this line as evidenced by the substantial number of retail and wholesale establishments added annually. The comparatively lower amount of capital needed in venturing into this business as compared to the amount needed in the other types has created a fertile ground for more investment.

1/ Estimated by the Population Research Division, Central Research, Bureau of the Census and Statistics.

2/ More detailed discussion of the various aspects of the economy all presented in Chapters XI to XIII and Chapter XV of this yearbook.

Table XXIV.5- CAPITAL INVESTMENTS OF NEWLY REGISTERED BUSINESS ORGANIZATIONS  
BY INDUSTRY GROUP: 1964-1971

(In thousand pesos)

Industry group	1964	1965	1966	1967	1968	1969	1970	1971
Total	384,753	327,267	388,009	419,182	470,815	410,024	437,967	670,179
Agriculture, forestry and fishing	23,624	12,621	19,546	32,042	33,408	22,302	15,395	29,377
Mining and quarrying	2,603	11,772	2,231	5,361	8,410	30,544	54,864	20,584
Manufacturing	71,408	64,700	95,944	85,620	82,279	48,262	52,690	128,491
Construction	7,346	11,661	21,119	14,610	28,108	16,192	21,847	42,298
Electricity, gas, water and sanitary services	543	1,122	690	626	672	1,090	1,506	1,143
Transport, storage and communication	30,418	16,750	21,473	27,164	20,916	41,841	15,482	28,615
Commerce	198,511	167,646	184,447	212,266	246,682	195,698	222,386	331,493
Services	50,300	40,995	42,559	42,493	50,340	54,095	53,797	88,178

Source: 1971 Central Bank Statistical Bulletin.

In manufacturing, the investment amounted to ₱128.5 million, or 19.17 percent of the total investment while investment registered in the services sector amounted to ₱88.18 million, or about 13.16 percent of the total invested capital in 1971. In the same year the investment in construction amounted to ₱42.3 million, or almost twice that in 1970. The agriculture, forestry, and fishery sector, the mining and quarrying group, and electricity, gas, water and sanitary services group contribute less than 5 percent each to the total capital invested during the years under review.

Through the years, the Filipinos accounted for a major portion of these investments. From 85.84 percent in 1964, the proportion of the investments made by Filipinos increased substantially to 96.26 percent in 1971. The total increase in investment realized between 1970 and 1971 is largely accounted for by the increase made by Filipinos during the same period. Records show that investment made by the Chinese in 1964 formed 11.05 percent of the total, while that of the Americans constituted only 2.74 percent. However, these proportional shares declined with the decrease in the investment made by both the Chinese and the Americans. With a more liberal and relaxed foreign relation, investment made by other nationalities increased to ₱16.03 million in 1971 or 2.39 percent of the total investment. Investment made by other nationalities initially amounted to only ₱1.25 million, comprising a meager 0.37 percent of the total in 1964.

TABLE XXIV.6 — CAPITAL INVESTMENTS OF NEWLY REGISTERED BUSINESS ORGANIZATION BY NATIONALITY, 1964 — 1971

(In thousand pesos)

Year	Total	Filipino	Chinese	Americans	Others
1964	340,500	292,290	37,613	9,343	1,254
1965	327,267	268,835	36,641	17,776	4,015
1966	388,009	354,292	27,994	4,066	1,615
1967	419,182	381,802	28,962	2,590	5,817
1968	470,815	426,691	29,811	6,121	8,192
1969	410,024	391,272	13,115	4,539	1,098
1970	437,967	425,018	9,576	1,928	1,445
1971	670,179	645,108	8,230	814	16,027

Source: 1971 Central Bank Statistical Bulletin.

## Employment and Wages

The gradual broadening of the capital base has created wider opportunities for the labor force population, which has increased from 9.7 million in 1961 to 12.3 million in 1971, to be absorbed in the different sectors of the economy. However, the opportunities available were just enough to maintain an employment ratio of 0.93 making it possible to infer that, during the period under study, there has been very little improvement in the country's employment situation. Furthermore, considering that not all those employed are working full time, the unemployment problem and the incidence of part time workers suggest the inability of the economy to meet the demands of the increasing labor supply.<sup>3</sup> This hampers the growth in domestic output, thus leading to a low per capita income as evidenced by the low standard of living among the Filipinos. If these human resources will be properly allocated and harnessed productively, the growth of the economy will be boosted.

TABLE XXIV.7. — LABOR FORCE POPULATION, 1961-1971<sup>4</sup>  
(In thousand pesos)

Year	Total	Employed	Unemployed
1961	9,713	9,095	618
1962	10,266	9,603	662
1963	10,233	9,764	469
1964	11,296	10,572	724
1965	10,764	10,101	663
1966	11,757	10,936	821
1967	11,776	10,867	909
1968	11,371	10,471	900
1969	12,046	11,234	812
1970	12,297	11,355	942
1971	12,288	11,627	661

Source: Household Surveys Division, Bureau of the Census and Statistics.

About half of the employed population are engaged in agriculture, forestry, hunting or fishing which further indicates the predominantly agriculture set-off of the Philippine economy. However, the proportional share of the agricultural sector to the employed population has been observed to decline from 60.63 per cent in 1961 to 48.46 per cent in 1971. During the eleven-year period the population employed in this industry group increased by 2.19 percent. These suggest that a gradual structural transformation is taking place in the economy. As the proportional share of the sector decreased, the other sector's share increased although in varying degrees, as may be deduced from the table presented below.

The electricity, gas, water and sanitary services sectors, the transport, storage and communication sectors and the services sector exhibited the most notable increases of 189 per cent, 91 percent and 89 percent, respectively between 1961 and 1971. However, the first sector's share to total employment increased only by 0.26 percent (from 0.21 percent to 0.47 percent), the second sector by 1.52 percent (from 3.06 percent to 4.58 percent) while the third sector exhibited a sizable increase of 5.71 percent (from 11.93 percent to 17.64 percent) during the same period. The manufacturing sector's employment which constituted 12.32 percent of the total employment in 1971, exhibited only an increase of 36.67 percent relative to its 1961 figures; while those employed in the commercial sector, which formed an almost equal proportion to total employment during the same year, exhibited an increase of 60.57 percent. The transport, storage and communication sector, the construction sector and the mining and quarrying group together with the electricity, gas, water and sanitary services sector form less than five per cent each of the total employment in the country.

3/ Survey of Households conducted by the Bureau of the Census and Statistics show that about 50 percent of the population works part time.

4/ Based on October Surveys 1964 and 1969, May survey result; 1970 May census result and 1971 March survey result.

Table XLV.8 - EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP, 1961-1971

Major Industry Group	(In thousands)										
	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970 <sup>a/</sup>	1971
Total <sup>b/</sup>	9,095	9,603	9,764	10,572	10,101	10,936	10,867	10,471	11,234	11,355	11,627
Agriculture, forestry, hunting and fishing	5,514	5,898	5,779	6,188	5,725	6,290	6,330	5,631	6,325	6,108	5,635
Mining and quarrying	31	40	29	38	24	26	45	43	51	51	49
Construction	230	236	271	346	295	283	276	342	349	445	419
Manufacturing	1,026	1,052	1,139	1,245	1,101	1,229	1,223	1,234	1,291	1,352	1,433
Electricity, gas, water and sanitary services	19	30	22	18	22	37	30	36	29	33	55
Commerce	873	911	1,026	1,196	1,114	1,126	1,078	1,130	1,109	831	1,400
Transport, storage and communication	278	286	318	331	339	384	375	363	383	494	532
Services	1,085	1,123	1,165	1,198	1,435	1,532	1,500	1,658	1,657	1,859	2,051
Industry not reported	39	28	16	14	47	30	10	33	40	182	54

NOTE: Data for all years were results of October surveys except: 1964 and 1969 May Survey results; 1970 May Census Result; and 1971 March Survey result.

<sup>a/</sup> 1970 Census Figures adjusted to include employed population only

<sup>b/</sup> Details may not add up to totals due to rounding.

Sources: Household Surveys Division and Population Division, Bureau of the Census and Statistics.

With the agriculture, services and manufacturing sector employing a substantial portion of the country's labor force population, farmers, farm laborers, fishermen, hunters, lumbermen; craftsmen and production process workers; and service workers are the country's most popular occupations. These workers comprised 71.08 per cent of the total employment in 1971, of which 67.33 per cent is accounted for by the first group, 19.33 percent by the second group and the rest by the third group. The professional and technical workers including the proprietors, managers, administrators and officials constituted an average of about 7 percent of the total employment. Considering that the role these people play in supplying the necessary skills, knowledge, and supervision is a vital one, the country should be bent on producing more highly trained and skilled professionals, technical men, competent managers and administrators through proper training and wide educational opportunities. The increasing number of professionals, technical and related workers suggest that there has been a growing concern lately on the acquisition of proper education. Although the rate of increase has been rather fluctuating between 1961 and 1971, this group increased by 123.95 percent or by an average of 8.56 percent annually. This trend should be maintained and efforts should be further directed towards achieving more favorable results in the years to come.

The degree of training and skills one possesses as well as the nature of the work he does, determine to a considerable extent the earnings he receives. As shown in the table below, administrative, executive and managerial workers receive the highest pay which amounts to an average of ₱123 weekly in 1971, while the professional, technical and related workers receive some ₱99 a week. Clerical workers and those who work in the transport and communication sector had average weekly earnings of ₱87 and ₱66 respectively during the same year, while those employed with the other sectors received less than ₱50 weekly.

It may be generally stated that in all occupation groups, the males earn more than the females. An overall view of the situation gives a ₱58 to ₱40 average earnings ratio in favor of the males, or an average of ₱52 weekly per worker. It is further suggested that the entry of female workers in some occupation groups, such as the administrative, executive and managerial group, the miners and quarrymen groups, the transport and communication group and the manual workers and laborers group, is still limited, if not at all barred.

Table XXIV.9 - EMPLOYED PERSONS BY MAJOR OCCUPATION GROUP: 1961-1971 <sup>a/</sup>

(In thousands)												
Major Occupation Group	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	
<b>Total</b>	<b>9,095</b>	<b>9,603</b>	<b>9,764</b>	<b>10,572</b>	<b>10,101</b>	<b>10,936</b>	<b>10,867</b>	<b>10,471</b>	<b>11,235</b>	<b>11,355</b>	<b>11,627</b>	
Professional, technical and related workers	309	285	313	315	375	441	441	511	447	644	698	
Administrative, executive and managerial workers	340	358	356	435	452	420	393	457	122	135	112	
Clerical office & related workers	273	252	284	280	352	364	357	386	332	369	433	
Salesmen and related workers	537	572	646	740	675	723	695	666	1,039	771	1,534	
Farmers, farm laborers, fishermen, hunters, loggers and related workers	5,501	5,892	5,755	6,157	5,677	6,246	6,299	5,598	6,294	6,032	5,565	
Miners, quarrymen and related workers	23	30	21	29	14	18	34	28	39	33	25	
Workers in communication and transport occupations	184	192	251	244	272	280	281	183	367	495	205	
Craftsmen, production process workers and related workers	1,100	1,156	1,250	1,389	1,270	1,384	1,351	1,420	1,442	1,641	1,598	
Manual workers and laborers, n.e.c.	163	166	199	268	151	176	159	290	208	254	516	
Service, sports and related workers	636	675	676	701	840	860	847	905	917	862	1,301	
Occupation not reported	29	26	16	14	42	24	b/	26	27	120 <sup>c/</sup>	40	

<sup>a/</sup> Based on October survey results except 1964 and 1969, May survey results, 1970 May Census results and 1971, March Survey result.

<sup>b/</sup> Less than 9500. The standard error is not computed when the estimate is less than 9500.

<sup>c/</sup> Includes AFP members.

Source: Bureau of the Census and Statistics, Household Surveys Division and Population Division.

Table XXIV.10 - AVERAGE EARNINGS <sup>a/</sup> OF WAGE AND SALARY WORKER BY SEX AND BY OCCUPATION GROUPS: 1971

(In pesos)			
Occupation Groups	Both Sexes	Male	Female
<b>Average</b>	<b>52</b>	<b>58</b>	<b>40</b>
Professional, technical and related workers	99	108	93
Administrative, executives and managerial workers	123	125	(a)
Clerical workers	87	101	59
Sales workers	44	58	24
Farmers, farm laborers, fishermen, hunters, loggers and related workers	24	26	15
Miners, quarrymen and related workers	46	46	-
Workers in transport and communication occupations	66	65	(a)
Craftsmen, production-process workers and related workers	45	51	24
Manual workers and laborers, n.e.c.	37	37	(a)
Service, sports and related workers	30	53	15

<sup>a/</sup> Average cash earnings is not completed when workers are less than 9,500.

\* Although each earnings were recorded only for the survey week it may be used to approximate roughly the earnings for the year.

Source: Bureau of the Census and Statistics, Household Surveys Division.



The average monthly earnings received by the workers increased moderately between 1961 and 1971. Among the salaried employees and wage earners employed in non-agricultural industries, a 45.7 percent and 61.3 percent increase in average monthly earnings, respectively, was realized during the period under review. For these two groups, those employed with the manufacturing sector exhibited the most notable increase of 74.5 percent and 81.2 percent, respectively. The rate at which the average monthly earnings of the other salaried employees increased varied from 51.9 percent among those in the electricity, gas, heat, water, and sanitary services sector to 23.6 percent in the mining and quarrying group. On the other hand, the other wage earners experienced rates of increase ranging from 39.5 percent to 80 percent.

The 33 percent upward revision in the minimum wage in 1970 was accompanied by a 20 percent upward adjustment in the monthly salaries of most other employees. However, these fairly moderate increases in wage rates have barely offset the insurmountable increases in price during the same period, thus putting the workers at a disadvantage.

Table XXIV.11 - INDEX OF AVERAGE MONTHLY EARNINGS OF SALARIED EMPLOYEES AND WAGE EARNERS IN SELECTED NON-AGRICULTURAL INDUSTRIES IN THE PHILIPPINES BY INDUSTRY GROUP: 1961-1971

(1961=100)\*

Year	All Workers		Mining and Quarrying		Manufacturing		Electricity, Gas Heat, Water and Sanitary Services		Commerce		Transport and Communication	
	Salaried employees	Wage earners	Salaried employees	Wage earners	Salaried employees	Wage earners	Salaried employees	Wage earners	Salaried employees	Wage earners	Salaried employees	Wage earners
1961	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962	103.2	101.5	103.4	102.0	104.5	104.9	102.6	101.1	102.9	99.8	102.7	100.8
1963	106.7	102.6	103.5	106.4	111.3	109.5	107.8	102.8	106.7	95.5	106.7	101.6
1964	108.9	107.2	104.1	113.9	116.5	113.3	109.4	109.2	110.1	100.0	108.9	102.5
1965	110.1	113.5	108.3	115.8	119.4	116.5	100.3	122.3	111.8	105.1	112.8	108.5
1966	115.7	125.3	106.7	125.3	125.5	126.1	122.7	138.5	116.3	113.9	115.2	122.9
1967	117.8	132.6	100.1	143.7	133.3	132.6	134.2	146.4	116.5	119.8	120.2	121.7
1968	123.5	133.3	105.7	147.1	137.8	134.8	145.1	144.9	119.9	117.0	125.0	125.5
1969	129.4	138.7	112.9	155.8	146.2	140.3	147.5	156.6	125.8	116.7	129.6	127.3
1970	135.6	149.3	112.7	159.5	158.6	158.9	150.4	168.1	139.5	128.5	134.3	134.2
1971	145.7	161.3	123.6	180.0	174.5	181.2	151.9	172.9	151.2	140.0	144.6	139.5

\* Central Bank figures deflated to 1961.

Source: 1971 Central Bank Statistical Bulletin.

## Price Movements

The continually increasing prices have adversely affected the demand and supply of goods and services in the country. The spiraling prices offered an incentive to producers to produce more to the foreseeable profits but it likewise regulated the production process due to the increase in the cost of production. On the other hand, the demand for goods and services decreased with the increase in their corresponding prices, particularly in the case of luxury goods. In the case of necessities, however, substitutes were purchased to fill the demand.

Since 1961, the prices of all consumer items were estimated to have increased by slightly more than a hundred percent. The price of food exhibited the highest percentage in price, as evidenced by the spiraling of its index to an all time high of 235.6 in 1971. The consumers' price index of clothing followed a similar trend but it reached only 196.1, which therefore implies an increase of 96.1 percent in its price during the eleven year period. Comparatively less increases in the prices of miscellaneous goods and services as well as the prices of fuel, light and water have been observed for the same period. (Each was estimated to have increased by 67 and 66 percent, respectively over their 1961 prices) Only the price of rent and repairs increased by a relatively much lower rate of 23.4 percent.

TABLE XXIV.12 — CONSUMER'S PRICE INDEX FOR THE PHILIPPINES  
(1961 = 100)<sup>a</sup>

Year	All Items	Food	Clothing	Rent and Repairs	Fuel, Light and water	Miscellaneous
1961	100.0	100.0	100.0	100.0	100.0	100.0
1962	103.0	102.5	106.0	101.0	102.6	103.4
1963	111.2	116.4	109.4	102.5	104.9	105.5
1964	121.0	132.9	113.2	103.4	110.3	108.2
1965	124.8	137.3	118.9	104.8	114.8	110.6
1966	131.0	146.7	124.1	106.7	116.0	113.4
1967	138.7	158.9	131.3	108.7	116.1	116.0
1968	139.7	158.1	136.0	111.8	116.1	118.8
1969	142.1	159.1	139.9	112.8	117.2	123.3
1970	163.8	182.2	163.3	118.3	136.6	145.7
1971	201.6	235.6	196.1	123.4	165.8	166.7

Source: 1971 Central Bank Statistical Bulletin.

The increase in the prices of commodities has concomitantly decreased the peso's purchasing power. During the first nine years of the period under review, the pesos's worth decreased by an average of four centavos per year resulting to a total decline of 30 centavos in its value in 1969. Thus, goods which could be bought by a peso in 1961 cost an additional 30 centavos in 1969. The peso's value declined even faster during the last two years of the period under consideration as the purchasing power went down to as low as 0.50 in 1971.

TABLE XXIV.13 — PURCHASING POWER OF THE PESO, 1961 — 1971  
(1961=100)

Year	Purchasing Power <sup>a</sup>
1961	100.00
1962	0.97
1963	0.90
1964	0.83
1965	0.80
1966	0.76
1967	0.72
1968	0.72
1969	0.70
1970	0.61
1971	0.50

a/ Central Bank figure deflated.

The remarkable increase in prices during the last two years may be largely attributed to the institution of the "floating exchange rate system". This was instituted primarily to encourage exports and discourage imports, and thus increase our foreign exchange reserves in line with the Four Point Stabilization Program of the Central Bank. The floating of the peso has resulted in an increase in the price of imported goods and other goods having import content. Considering that the manufacturers of wholly indigenous products have likewise been affected by the increase in the price of imported commodities such as gasoline, oil and machinery which are essential in the production process, prices of these manufactured commodities also inevitably increased. This led to the overall increase in the prices of practically all consumer commodities by some 59.50 percent in 1971, and consequently a decline of 28.57 percent in the peso's purchasing power as compared to their corresponding 1969 figures. Aside from this, contributing factors to the upward surge of prices include the steady expansion in domestic liquidity, the disruptions in production, storage, and distribution due to natural calamities, and the speculation hoarding activities of most producers and middlemen.

## Production Trends

The accelerated increase in prices limited but did not entirely hinder, the expansion of productive activities. As a result of the increasing efforts of the government to boost the country's economy by providing incentives to the private sector in the form of liberal credit facilities, tax exemptions and subsidies, provision of the necessary physical and social infrastructures and giving adequate protection particularly to infant industries, major sectors of the economy exhibited gains in the quantity and value of their production, thus sustaining a greater portion of the increasing demand for goods.

## Agriculture

Agricultural production steadily increased over the years as farming became gradually mechanized, irrigation facilities were built, the use of fertilizer became more popular, and researches and studies have borne fruit. From 10.43 million metric tons in 1961, production of food and commercial crops increased at an average rate of 3.90 percent annually thus reaching 15.61 million metric tons in 1971. Substantial increases have been observed only lately, as evidenced by a 14.64 percent increase in total production in 1970 relative to a production of 13.23 million metric tons in 1969, but this rate of increase declined to 2.72 percent between 1970 and 1971.

The increase in total production was stirred primarily by a 45.46 percent increase in the production of food crops which contributed an average of 69.52 percent to the total agricultural production during the eleven year period. This is a vital step towards the attainment of self-sufficiency in food, although the goal may not be achieved if present conditions prevail, considering the shipments of rice and the millions of pesos worth of food and food preparations which the government imports yearly.

Commercial crops contributed an average of 30.48 percent to the total production of the agricultural sector. During the 11-year period, the production of commercial crops increased by 60.05 percent, with the most notable percentage increase of 15.77 occurring between 1969-1970. This is equivalent to about 33.97 percent of the overall increase realized during the period under review.

**TABLE XXIV.14 — AGRICULTURAL PRODUCTION BY KIND OF CROPS, 1961 — 1971**  
(In thousand metric tons)

Year	Total	Food crops <sup>a</sup>	Commercial crops <sup>b</sup>
1961	10,425.9	7,401.3	3,024.6
1962	11,350.2	7,830.3	3,519.9
1963	11,769.3	7,973.9	3,795.4
1964	12,195.1	8,298.3	3,896.8
1965	12,242.9	8,478.9	3,764.0
1966	12,193.5	8,598.9	3,594.6
1967	12,623.1	8,751.7	3,871.4
1968	13,236.5	9,293.8	3,942.7
1969	13,259.1	9,345.6	3,913.5
1970	15,200.6	10,670.0	4,530.6
1971	15,614.0	10,773.0	4,841.0

Source: 1971 Central Bank Statistical Bulletin.

a/ Food crops include palay, corn, fruits and nuts, citrus and vegetables, coffee, cacao, peanuts, etc.

b/ Commercial crops include copra, desiccated coconut, sugar, abaca, tobacco, ramie, rubber, mangoes, kapok and cotton.

However, it is worth noting that the increase in production has been largely due to the increase in the land put into cultivation for these crops. This defeats the purpose of obtaining optimum productivity from our resources. Our experience in rice production shows that the palay yield per hectare has been fairly constant (between 1.2 and slightly over 1.3 metric tons per hectare) as the land cultivated to palay was 3.1 million hectares. This implies that very little improvement in our farming methods has taken place during the first seven years of the

period under study. In 1968, with the introduction of better rice varieties which resulted out of the researches undertaken by the International Rice Research Institute, the College of Agriculture in Los Baños, Laguna and the Bureau of Plant Industry, the average yield per hectare reached 1.38 metric tons. However, this average decreased to 1.33 metric tons in 1969 due to several typhoons which visited the country. But in 1970, the yield per hectare was estimated to be 1.68 metric tons, inspite of the decrease in the hectarage put into cultivation by some 6.57 per cent, as compared to the corresponding 1969 all time high of 3.33 million hectares. The productivity of our rice farms further increased to 1.72 metric tons per hectare in 1971, after having realized a greater output of 5.343 million metric tons in an almost equal area of land planted to the crop in 1970.

The productivity of our corn fields likewise increased from 0.59 metric tons per hectare in 1961 to 0.84 in 1971. However, foot crops and copra which exhibited slight increases in their productivity between 1961 to 1970, experienced declines in their yields per hectare in 1971 by some 8.53 percent and 14.95 percent, respectively, as compared to the corresponding 1970 figures. Sugar farms likewise experienced declines in their production as manifested by an estimated production of only 4.75 metric tons per hectare in 1971. This is a decrease of 18.52 per cent from the 1961 average yield of 5.83 metric tons per hectare, and a 12.47 percent downward change over the 1970 production per hectare of 5.43 metric tons. The increasing costs of farm inputs due to the floating of the peso and the typhoons which visited the country in 1971 heavily accounted for the decline in production.

Table XXIV.15—PRODUCTION, LAND UTILIZATION AND AVERAGE YIELD PER HECTARE OF SELECTED PRINCIPAL CROPS, 1961-1971

CROP PRODUCTION	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Thousand Metric Tons											
Rice	3,705	3,910	3,967	3,843	3,993	4,073	4,094	4,561	4,445	5,233	5,343
Corn	1,210	1,266	1,273	1,293	1,313	1,380	1,490	1,619	1,733	2,008	2,005
Root crops	1,445	1,334	1,360	1,553	1,537	1,472	1,368	1,305	1,338	1,326	1,221
Copra	1,071	1,356	1,489	1,487	1,471	1,485	1,577	1,542	1,516	1,656	1,574
Sugar	1,354	1,506	1,600	1,690	1,621	1,460	1,622	1,658	1,663	1,987	2,101
LAND UTILIZATION											
Thousand Hectares											
Rice	3,198	3,179	3,161	3,087	3,200	3,109	3,096	3,304	3,332	3,113	3,113
Corn	2,046	2,016	1,950	1,898	1,923	2,106	2,158	2,248	2,256	2,420	2,392
Rootcrops	2,831	2,61	264	288	274	263	252	250	254	252	256
Copra	1,200	1,284	1,392	1,483	1,605	1,611	1,820	1,800	1,846	1,884	2,049
Sugar	232	255	259	270	351	315	309	318	343	366	442
YIELD/HECTARE											
Metric Tons Per Hectare											
Rice	1.16	1.23	1.26	1.25	1.25	1.31	1.32	1.38	1.33	1.68	1.72
Corn	0.59	0.63	0.65	0.68	0.68	0.66	0.69	0.72	0.77	0.83	0.84
Rootcrops	5.11	5.11	5.15	5.39	5.62	5.60	5.43	5.21	5.28	5.22	4.77
Copra	0.89	1.06	1.07	1.00	0.92	0.92	0.87	0.86	0.82	0.90	0.77
Sugar	5.83	5.91	6.18	6.26	4.63	4.63	5.25	5.21	4.85	5.43	4.75

Sources: Bureau of Agricultural Economics, Department of Agriculture and Natural Resources.

An overall assessment of the improvement of our agricultural situation over the years may be gauged from the increases in the index of the physical volume of agricultural production during the period under review. A fairly moderate increase of 48 percent compared to the 1961 production was exhibited by the sector with the most notable increase realized in 1968 as reflected by a 9.26 percent upward surge in the index from 128.86 in 1967 to 140.80 in 1968. In 1971, agricultural production remained almost equal to that of 1970.

**TABLE XXIV.16 — INDEX OF THE PHYSICAL VOLUME OF AGRICULTURAL PRODUCTION, 1961 — 1971**

Crop Year (July 1-June 30)	(1961 = 100) Index <sup>a</sup>
1961	100.00
1962	107.63
1963	111.77
1964	113.18
1965	116.42
1966	126.12
1967	128.86
1968	140.80
1969	139.64
1970	148.18
1971	148.18

a/ Central Bank's Index was adjusted for the change in base year.

Source of Basic Data: 1971 Central Bank Statistical Bulletin.

Because of its fertile soil, which is an advantage over other Southeast Asian nations, the Philippines may very well equal, if not surpass, the production of its neighboring countries by adopting technological and scientific innovations and an efficient land reform system. The remarkable achievement in 1968 warrants the country's potentialities in increasing its agricultural productivity. Further improvements will surely contribute a modest share in the growth process.

### Mining

Mine expansion, exploration and development continued as new mineral deposits were discovered and the demand for minerals rapidly grew. During the last decade, the volume of mineral production increased by 126.66 percent as more precious metals, base metals, and non-metallic minerals were extracted from ore deposits. Relative to agriculture and manufacturing, the volume of production realized from the mining sector during the period under study was higher by 52.96 and 31.90 percent, respectively.

During the early part of the decade (1961-1964) the volume of mineral production increased at an average rate of 1.49 percent. However, subsequent years saw an acceleration in the rate at which mining developed (estimated to be 11.73 percent annually), with the peak being attained in 1970 with a remarkable 16.62 percent increase over the previous year's output. The succeeding year exhibited a less impressive surge 11.83 percent, a level still higher than the average. The shortage of foreign exchange did not deter substantial expansion of the industry between 1970 and 1971.

**TABLE XXIV.17 — INDEX OF THE PHYSICAL VOLUME OF MINERAL PRODUCTION, 1961-1971**  
(1961 = 100)

Year	Index <sup>a</sup>
1961	100.00
1962	101.71
1963	103.20
1964	104.54
1965	113.03
1966	123.75
1967	134.48
1968	154.65
1969	173.79
1970	202.68
1971	226.66

a/ Central Bank Figure Rebased to 1961.

Source of Basic Data: Central Bank Statistical Bulletin, December 1961.

Production of precious metals consists primarily of gold and silver, of which the latter form the major portion of slightly over 70 per cent, as estimated between 1961 and 1971. Consistent with the upward trend in production, precious metals extracted in 1971 grossed 2.55 million fine ounces, the highest volume so far extracted from our mineral deposits. This is equivalent to a 10.57 per cent increase over the volume extracted in 1970.

The production of base metals similarly traced an upward pattern, although at a comparatively lower rate. In 1971, production of base metals was 2.69 metric tons or an increase of 3.14 per cent over the output in 1970. This excludes the production of quicksilver which aggregated to 4,830 flasks in 1971 as compared to a production of 4,647 flask<sup>5</sup> during the previous year).

**TABLE XXIV.18 — PRODUCTION OF PRECIOUS METALS AND BASE METALS, 1961-1971**

Year	Precious Metals <sup>a</sup>	Base Metals <sup>b</sup>
1961	1,236,776	1,885,177
1962	1,098,964	1,969,392
1963	1,143,255	1,919,141
1964	1,333,274	1,905,750
1965	1,371,412	2,108,977
1966	1,616,435	2,168,918
1967	1,882,194	2,065,496
1968	2,102,137	1,971,039
1969	2,132,457	2,185,678
1970	2,304,614	2,604,722
1971	2,548,120	2,686,468

Source: 1971 Central Bank Statistical Bulletin.

a/ Consists primarily of gold and silver.

b/ Includes manganese, ore, copper, lead, iron ore, and zinc with iron forming an average of 69 percent to the total production.

Non-metallic minerals produced during the last five years generally increased with the exception of coal. Our coal output declined at a fluctuating rate, from 69,753 metric tons in 1967 to 46,641 metric tons in 1971, which is a decrease by about 33.13 percent. However, relative to the previous year, an increase of approximately 10.00 percent was recorded. Sand and gravel produced in 1971 was 4.85 million cubic meters. As compared to its 1967 production of 2.68 million cubic meters, this is an impressive increase of 80.71 percent. However, relative to its 1970 production this shows only a 5.00 percent improvement in output. The production of salt and silica likewise increased by striking rates of 96.50 and 130.81 percent respectively during the 5 year period. Salt produced in 1971 was 4.54 million cavan while that in 1967 was only 2.31 million cavan. Salt production was greatly accelerated in 1968 where an increase of 87.66 percent was noted, the highest during the entire five year period. On the other hand, silica extracted in 1971 grossed 0.72 million metric tons which can favorably compare to the 0.68 million metric tons produced in 1970.

The top ranking mine producers and their products were: the Atlas Consolidated Mining and Development, copper; Benguet Consolidated, gold; Lepanto Consolidated, silver; Philippine Iron Mines, iron; Consolidated Mines Inc., chromite; and Island Cement, cement.

**TABLE XXIV.19 — PRODUCTION OF NON-METALLIC MINERALS, BY KIND, 1967-1971**

Year	Coal Metric tons	Sand and Gravel (cubic meter)	Salt (Cavan)	Silica (metric ton)
1967	69,753	2,683,917	2,311,760	311,440
1968	32,150	3,323,870	4,338,300	429,228
1969	59,540	3,088,851	4,435,320	396,150
1970	42,401	4,619,123	4,206,120	684,614
1971	46,641	4,850,079	4,542,600	718,845

5/ Flask — a flask contains 76 pounds of mercury.

Source: 1967-1971 Central Bank Annual Reports.

## Manufacturing

The expansion of the agriculture and mining industries necessitates the development of the manufacturing sector which would utilize the raw materials and subsequently increase the good's net worth. Furthermore, the development of the industry would create wider opportunities for social advancement and economic stability which are conducive to the growth process.

Gauged from the volume of production of the manufacturing sector, it may be surmised that the sector has consistently expanded during the period under review at an average rate of 5.09 percent annually. The severe strain of the floating exchange rate system to the sector may be gleaned from the 0.23 percent increase in production in 1970 which was the lowest increase in index during the period under consideration. However, a year after, this meager increase was offset by a 7.36 percent rise in the index of manufacturing production, from 160.06 in 1970 to 171.84 in 1971. Relative to its 1961 production, the volume of output from the manufacturing industry was 71.84 percent more in 1971. This rate of increase was higher than that of the agricultural sector.

The volume of non-durable goods produced increased throughout the entire span of the period under review as manifested by a continually increasing index which manifests a 76.15 percent increase in production between 1961 and 1971. Of the non-durable goods manufactured, more than 50 percent increments relative to their respective 1961 outputs were noted of food, beverages, tobacco products, rubber products, chemicals and miscellaneous products of petroleum and coal, manufactured in 1971. The most substantial increase of 161.21 percent was noted in the volume of beverages manufactured. On the other hand, non-durable goods which showed a downward trend in their outputs within the same period were those from printing, publishing and allied industries, including those manufacturing leather products except footwear.

Durable goods manufactured steadily increased in volume until 1969 but declined then on after the peso was floated, as evidenced by the decline of the index from 169.69 in 1969 to 159.23 in 1970 and finally to 153.95 in 1971. As more import restrictions faced our social manufacturers and the demand for durable manufactures decreased owing to the increase in prices, the volume of its production declined.

Table XXIV.20 - INDEX OF THE PHYSICAL VOLUME OF PRODUCTION IN MANUFACTURING, 1961-1971 <sup>1/</sup>  
(1961 = 100)

Category	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
<b>MANUFACTURES</b>	100.00	105.75	112.46	121.81	125.17	136.20	141.18	154.33	159.69	160.06	171.84
Non-durable	100.00	105.88	111.85	119.44	123.59	135.29	139.19	152.11	157.29	160.29	176.15
Food	100.00	109.18	112.35	117.10	127.36	132.81	142.05	145.82	149.78	145.22	162.89
Beverages	100.00	112.65	130.16	138.35	145.87	158.35	136.65	205.27	216.00	229.80	261.21
Tobacco products	100.00	104.84	102.65	124.11	135.48	158.85	155.74	178.52	164.09	156.62	159.95
Textiles	100.00	104.89	115.92	119.69	116.15	116.36	121.81	117.71	117.78	115.85	139.13
Footwear, wearing apparel, etc.	100.00	107.01	110.19	105.10	108.28	110.40	108.70	108.07	104.67	135.46	135.05
Paper products	100.00	115.05	136.70	138.55	138.71	143.78	146.78	123.94	123.45	114.34	105.45
Printing, Publishing and allied industries	100.00	88.85	71.55	66.64	68.52	69.12	67.58	62.01	67.32	81.22	66.30
Leather products except footwear	100.00	97.35	100.19	100.13	92.75	82.86	80.59	77.44	91.43	94.33	90.30
Rubber products	100.00	87.49	90.32	100.20	105.67	104.57	127.35	154.27	160.37	162.61	168.60
Chemicals	100.00	107.69	116.35	120.44	130.21	135.90	138.18	136.32	144.07	156.41	176.85
Miscellaneous products of petroleum and coal	100.00	95.13	95.61	98.38	87.12	112.77	125.27	152.98	177.71	185.12	199.35
Miscellaneous	100.00	105.35	58.56	80.64	65.07	79.16	80.25	90.94	88.92	76.84	84.82
Jewelry	100.00	105.28	115.41	131.98	132.04	140.7	149.67	165.90	169.69	159.23	153.95
Wood and Cork	100.00	106.01	146.25	123.78	131.71	164.02	186.50	241.38	203.92	208.80	180.57
Furniture and Fixtures	100.00	105.98	115.85	147.62	133.19	98.62	125.84	107.43	87.12	61.37	56.35
Non-metallic mineral products except petroleum and coal	100.00	102.55	105.16	119.58	134.80	144.17	148.87	165.44	165.20	157.59	158.44
Metal products except machinery	100.00	107.35	106.22	119.81	130.05	136.75	136.86	132.30	146.32	126.34	125.36
Machinery other than electrical	100.00	99.11	98.54	144.01	78.72	122.25	147.17	141.75	85.50	70.39	126.29
Electrical machinery, apparatus, etc.	100.00	98.06	115.67	127.94	116.07	122.09	147.96	136.32	179.75	208.06	202.12
Transport equipment	100.00	118.08	175.18	237.99	176.22	187.86	210.44	284.10	278.16	250.10	189.88
Miscellaneous	100.00	89.51	69.14	42.77	38.13	31.91	44.27	40.67	62.17	79.95	74.61

<sup>1/</sup> Central Bank figures adjusted for the change in base year.

Source: 1971 Central Bank Statistical Bulletin.

The manufacturing sector is at present confronted with problems ranging from the accumulation of capital and raw materials to the distribution of goods to the ultimate consumers. Capital formation have remained inadequate due to the limited financial supply. Although financial institutions offer liberal credit facilities, loans have been channeled in the wrong directions. The high risks involved in extending loans for the establishment of new manufacturing industries and the expansion of existing ones having long term impacts on the economy, conflict with the profit motive of these institutions. Thus, more loans were granted to building and construction purposes which have very little contribution to GNP. The acquisition of foreign capital, on the other hand, also pose the problems of difficulty of credit arrangements and high interest rates.

Import restrictions have also created severe bottlenecks in importing machinery and raw materials among local manufacturers. The arbitrary requirements of the Central Bank to put up a 50 percent marginal deposit on all letters of credit disregarding the essentiality of the commodity brings forth an additional problem of importing raw materials far below the firm's needs. This results in the low capacity operation of the firm which increases the manufacturing costs.

Limitation of the market also deters further expansion of the industry. The low buying power of the Filipino does not permit full capacity operation for this leads to the piling up of finished goods in warehouses. This is aggravated by an underdeveloped foreign market, which is dependent primarily on our traditional trading partners. Furthermore, there is the problem of transporting goods brought about by high freight rates which raise the price of goods.

### Balance of Payments

The country's balance of payments position are the extent and kinds of transaction it makes which involve making foreign exchange available to the country or using it up.

Between 1970 and 1971, the external transactions of the country were affected by the world-wide inflation and the drastic reforms in the international monetary system. These contributed greatly to the deterioration of the country's external payments position.

Table XXIV.21 - BALANCE OF PAYMENTS OF THE PHILIPPINES: 1970-1971

(In million US dollars)			
I t e m		1971	1970
<b>A. Goods and Services</b>			
Exports, f.o.b.	1,144.13	1,082.78	
Of which non-monetary gold	22.35	21.08	
Imports, f.o.b.	- 1,185.96	- 1,090.12	
Trade balance	- 41.83	- 7.34	
Transportation and merchandise insurance	- 76.98	- 91.24	
Travel	- 77.63	- 67.48	
Investment Income	- 97.27	- 129.73	
Services rendered to U.S. military	36.06	30.60	
Pensions from the U.S. government	68.96	63.75	
Private transfers	34.22	29.19	
Others	- 41.23	- 18.63	
Total A	2.02	- 55.92	
<b>B. Official Grants and Long Term Capital</b>			
Reparations from Japan	26.44	13.10	
Other grants	4.16	13.38	
Private loans	- 32.77	89.52	
Official loans	69.80	41.36	
Other private capital	- 3.88	- 24.30	
Other official capital	-	1.75	
Total B	63.75	131.31	
<b>C. Private Short-Term Capital</b>			
Net Errors and Omissions			
Private short-term capital	89.07	75.88	
Net errors and omissions	- 165.13	- 147.18	
Total C	- 76.06	- 71.30	
<b>D. Allocation of Special Drawing Rights</b>			
	16.99	18.48	
<b>E. Overall Position (A to D)</b>			
	6.30	22.57	
<b>F. Monetary Movements Net IMF accounts</b>			
Commercial Banks' liabilities	116.79	31.77	
Central Bank liabilities	3.58	58.50	
Commercial Banks assets (increase-)	23.22	3.71	
Central Bank foreign exchange assets (increase-)	- 113.76	- 118.97	
Central Bank monetary gold	- 10.69	- 11.33	
Total F	- 6.30	- 22.57	

Note: A negative sign means debit while data without a sign indicates credit.



The balance of trade proved unfavorable in 1971 with the 1970 gap of \$7.34 million widening to \$41.83 million. The increase in the quantity of exports offset the decline prices of the major exports in the world market with exports amounting to \$1,144 million in 1971. However, the increase in the imports was mainly due to price increases, considering that volumewise, imports increased only by 0.8 percent. On the other hand, non-merchandise trade transactions showed a net inflow of \$4,385 million which was a marked increase from the net outflow of \$48.58 million recorded in 1970. On the whole, the total goods and services registered a surplus of \$2.02 million as against the \$55.92 million deficit in 1970.

Official grants and long term capital showed a net-inflow of \$63.75 million which was a decline of 51.45 percent from the net inflow of \$131.31 million in 1970. Short-term capital movements including net errors and omissions reflected a \$76.06 million outflow or an increase of approximately 6.68 percent from the net outflow of \$71.30 million realized in 1970.

Total goods and services, official grants and capital movements aggregate to form a net outflow of \$10.3 million. The allocation of special drawing rights however, offset these outflows, boosting the country's foreign exchange resources by \$6.30 million. This was a decrease of about 72.09 percent from \$22.57 million foreign exchange resources in 1970.

### Public Finance

The expenditures incurred by the government in the purchase of goods and services, outlays for capital projects and transfer payments to persons has been continually increasing in an effort to provide for the expanding needs of the ever increasing population and the expanding economy. Government expenditures increased to ₱4,053.5 million in 1970 from only about ₱1,410.6 in 1961. Varying through the years, the rate at which government expenditures increased averaged to 12.71 percent during the period under study. An exceptional 22.64 percent increase in the 1969 expenditures, resulted to a deficit of ₱401.2 million. However, the government considerably slowed down its spending the next year as manifested by a relatively low percentage increase of 12.25 in the expenditures which lowered the deficit to 0.7 million. For the same year, the government borrowed some ₱943 million representing 23.27 percent of the total receipts to finance its expenditures. This resulted to an increase of 277.05 percent in borrowings. From the figures presented below, it may be deduced that the government should have suffered from severe deficits if it did not engage in borrowings. It is further implied that government receipts are insufficient to meet its expenditures. (This is attested by the deficits incurred most especially during the second half of the period under review.)

**TABLE XXIV.22 — GOVERNMENT RECEIPTS AND EXPENDITURES, FY 1961-1970**  
(In million pesos)

Fiscal Year	Total Receipts	Expenditures	Surplus (Deficit)	Receipts From Borrowing	Excess of Receipts Net of Borrowing Over Expenditures
1961	1,470.1	1,410.6	59.5	207.4	(147.9)
1962	1,494.2	1,469.4	24.8	70.1	( 45.3)
1963	1,908.9	1,852.1	56.8	131.1	( 74.3)
1964	2,084.9	2,067.5	17.4	153.7	(136.3)
1965	2,074.0	2,077.4	( 3.4)	210.3	(213.7)
1966	2,147.9	2,227.7	( 79.8)	280.3	(360.1)
1967	2,555.9	2,531.0	24.9	216.8	(191.2)
1968	2,901.7	2,944.3	( 42.6)	348.6	(391.2)
1969	3,209.8	3,611.0	(401.2)	250.1	(651.3)
1970	4,052.8	4,053.5	( 0.7)	943.0	(943.7)

Source: Budget Commission and Joint Legislative Tax Commission.

Claims against the government have been observed to increase considerably during the period under review by as much as 13.36 per cent on the average. This trend is attributable to the increase in the internal debt which constituted an average of about 77.16 percent of the total outstanding debts. Increased public borrowings were resorted to by the government to support heavier disbursements and investments in physical and social infrastructures. Since domestic savings were not enough to meet the rising expectations of the people, the government resorted to foreign borrowings. External debts of the Philippines reached unprecedented levels during the second half of the period under review. It reached an all time high of \$1,297 million in 1969, which was an increase of 6.01 percent over the previous year's debt of \$1,223.5 million. However, the highest increase was in 1966 in which a 39.58 percent increase brought the \$830.8 million debt incurred in 1965 to \$1,159.6 million. While foreign loans have been used to finance investments and bridge the foreign exchange gap, heavy debt repayments created severe pressure on the balance of payments and international reserve position.

The rate at which both internal and external debt increased fluctuated rather abruptly during the period under study in which declines in the rate of increase are followed consecutively by high rates of increase or vice versa as may be observed from the following table.

**TABLE XXIV.23 — GROWTH OF THE PHILIPPINE PUBLIC DEBT, 1961 TO 1970**

Year	Total	Internal Debt		External Debt	
	Outstanding (Million Pesos)	Million Pesos	Decrease Increase Percent	Pesos Million	Decrease Increase Percent
1961	2,343.5	1,974.2	—	369.3	—
1962	2,805.9	2,177.5	10.30	628.4	70.16
1963	2,872.0	2,291.9	5.25	580.1	— 7.69
1964	3,044.9	2,419.9	5.58	625.0	7.74
1965	3,528.6	2,697.8	11.48	830.8	32.93
1966	3,728.3	2,568.7	— 4.79	1,1159.6	39.58
1967	4,474.5	3,362.2	30.89	1,112.3	— 4.08
1968	5,029.5	3,806.0	13.20	1,223.5	10.00
1969	5,788.9	4,491.9	18.02	1,297.0	6.01
1970	7,122.4	n.a.	—	n.a.	—

Source: Public Debt Management Division, Department of Finance and External Debt Management Office, Central Bank of the Philippines.

## THE GOVERNMENT AND ECONOMIC PLANNING

The government plays the vital role of planning and directing the economy's future course. It initiates activities geared towards economic development and sets the environment conducive to growth by giving the necessary incentives, such as providing the necessary infrastructures, tax exemptions and others. In order to attain these ends, it needs a well integrated development program to scientifically weigh priority areas and projects, organize the details and set target dates and goals. This would enable it to make a sound assessment of the economy's status and its achievement over time.

In the Philippines, the government exerts much effort to achieve development. It formulates and executes a development through its various agencies entrusted with the responsibility of planning and coordinating activities geared towards development, most important of which are the National Economic Council and the Presidential Economic Staff. These agencies are assisted by executive departments and government financial institutions and corporations which submit evaluations and recommendations on the current status of their respective fields and other relevant subject matter areas.

## GOVERNMENT PLANNING AGENCIES

### National Economic Council (NEC)

The National Economic Council which was originally created by the Philippine Assembly in 1935 was reorganized and revitalized under the provisions of RA. No. 997. Through a presidential directive, by provision of law or through the initiative of either the Council members themselves, the technical staff, other government agencies or the private sector, the NEC formulates definite and consistent national economic policies and prepares comprehensive economic and social development programs. These are made in detail with every plan and item, subject to the implementation of a specific agency or sector in the economy, after the approval of the President or, if necessary, of Congress.

Aside from formulating over-all programmes, it sets policy recommendations governing tax exemption privileges, incentives to investment, desirable levels of government revenues and expenditures, trade and tariff policies priorities in the allocation of foreign exchange, and other policies deemed to effect more rational and sound government decision.

It also assesses the country's financial resources in the light of current credit and monetary policies and its makes an inventory of the country's needs and resources to be able to establish priorities for development projects which would fit the short and long run demands of the Philippine economy.

### Office of Statistical Coordination and Standards (OSCAS)

Providing the basis for all programs and recommendations of the NEC is one of its staff offices, the Office of Statistical Coordination and Standards. The OSCAS estimates, analyzes and develops statistical measures of the aggregates economic activity of the Philippines which includes national income accounts and food balance sheets necessary in social and economic development programming, policy formulation and economic analysis. It also conducts original researches and studies on commodity balances, national income and related fields for the improvement of past and current estimates and for the development of new techniques in the measurement and revision of outdated constants and ratios.

Moreover, the office acts as the central coordinating agency for all government statistical activities. It is responsible for the continuing development, improvement, and direction of the Philippine Statistical System, in tapping foreign resources for credit or other forms of assistance.

### Presidential Economic Staff (PES)

The Presidential Economic Staff is the central coordinating and implementing body of all economic plans and policies. It collates, analyzes, coordinates and integrates the plans, programs, projects and proposals of the various government departments, agencies and instrumentalities for purpose of formulating and developing policy recommendations, establishing priorities and programming the utilization of public funds, manpower resources and equipment. It undertakes economic development planning at a level between the overall aggregate view of the NEC and the specialized views of individual government departments, corporations and financial institutions. Essentially, it acts as the coordinator in the implementation of the plans and programs of the President and sees to it that implementation process goes on smoothly.

## FOUR YEAR DEVELOPMENT PLAN

In order to attain a sustained economic prosperity, a four year development program was formulated by the NEC. This program is aimed at attaining a higher per capita income, widespread employment, a more equitable income distribution, internal stability and regional industrialization and development. In the attainment of these ends, it is bent on expanding and diversifying our exports, utilizing relatively more labor-intensive methods in production and strengthening industrial linkages.

The economy's performance during FY 1970-1971 surpassed the planned targets of the four-year development plan. For instance, GNP at constant 1967 prices overshot the planned projection by over 4 percent which was due to the large consumption and greater investment level during the period. Aggregate domestic production likewise increased by 3 percent than the anticipated values. However, on the foreign trade scene, exports lagged by just 0.3 percent behind the planned level in 1970 while in 1971 it overtook the projections by a 10.8 percent margin. Furthermore, the projected decrease in imports did not materialize as the actual value exceeded the target level by 0.8 percent in 1970 and by 2 percent in 1971. It may therefore be deduced from these trends that the plans have been realized enough as an approximation of the future economic behavior.

In accordance with the four year plan revisions were made in the programs covering FY 1971-1974 to incorporate higher projections for the GNP, net domestic product NDP, output in mining, in manufacturing and in the combined residual sectors, in the investment levels and in the export and import values for FY 1972 to 1975.

Sectoral targets under the plan include attaining self-sufficiency in food staples in 1972 through a 6.5 percent expansion in the value added of the agricultural sector. However, this will slacken moderately to an average of 5 percent by FY 1973-1975. The sector's share in NDP will thereby fall from 33 per cent to 31.5 per cent during the plan period. Through a programmed favorable exchange rate policy and the foreseeable increase in demand, mining will continue expanding at an average rate of 21.2 percent annually. Hence, its share to NDP will rise from 2.7 percent in FY 1972 to 4 percent in FY 1975. The same trend is expected of the manufacturing sector but with an average production increase of 8.8 percent. By FY 1975, this sector is expected to account for a 20.3 percent share in the NDP, a positive increment of 1.7 percent from the 1972 share of manufacturing of 18.6 percent. Construction activities are likewise expected to increase although at a lesser rate of 7.6 percent a year while transportation, commerce and services are expected to experience annual growth rates of 5.6 percent, 4.4 percent and 5.1 percent, respectively. Throughout the plan period, the combined share of these sectors average about 42 percent.

These plans were arrived at by using a macro-economic model of the economy, based on the reliable statistics, which defines the relationship between different economic variables. The flexibility of the model permitted feasible targets to be determined, under different sets of assumptions and conditions.

However, a well integrated plan such as this will all be meaningless if proper steps will not be taken towards its implementation. Government efforts should not end in planning, it should be carried all the way through implementation. Supporting policies, remedies and alternatives should be taken in line with the desired goal. The government must create the necessary conditions and facilities to spur private sector investments while physical and social infrastructure facilities should be improved and setup. Funds should be made available in time to finance the needed projects, and monetary and fiscal policies ought to be favorably directed towards the plan's aims. All these are necessary to create a wide response in the private sector and eventually win their support in the development process.

### **Investment Incentives Laws**

In line with the Four-Year Development Plan, laws were passed to stimulate investments and boost economic transactions, foremost of which are the Investment Incentives Act or RA 5186 and RA 5490.

Considered as one of the most significant and far-reaching pieces of economic legislation is the Investment Incentives Act of 1967 or RA 5186 which defines the nation's investment policy according to a clear cut hierarchy of socio-economic objectives. The act provides for the creation of the Board of Investments with the major role of accelerating capital formulation and at the same time rationalizing its structure. In line with this goal, it identifies national "preferred" and "priority" areas for productive investments which it incorporates in the Investment Priorities Plan.

Preferred areas of investment include: (1) enterprises engaged in the exportation of finished products, completely processed and manufactured in the Philippines with at least 70 percent of the peso value of its total raw material content of Philippine origin; (2) those which export more than 50 percent of its total output, and (3) those which do not enjoy any preferential treatment arising from any agreement or arrangement between the Philippine government and the importing country. However, these enterprises are declared preferred only upon confirmation that a measured capacity exists.<sup>6/</sup>

Within each preferred area are declared pioneer areas which should meet one or more of the following conditions: (1) that it shall be engaged in the manufacture, processing or production (and not merely in the assembly or packing) of goods, products, commodities or raw materials that have not been or are not being produced in the Philippines on a commercial scale; and/or (2) that it shall use a design, formula, scheme, method, process or system of production or transformation of any element, substance or raw material into another raw material or finished product which is new and untried in the Philippines. The final product must also involve the extensive or substantial use and processing of domestic raw materials whenever available.

Industries satisfying these conditions are evaluated according to their socio-economic worth through the use of the Index of Productive Output, a formula which takes into account the social rate of return, foreign exchange earnings or savings generated, labor entrepreneur, forward/backward linkages and the insufficiency gap.<sup>7/</sup>

In order to stimulate the pouring in of investments in preferred and priority areas, the BOI grants incentives which include: (1) those that offer protection of the market or of the price of the product produced by the enterprise through the implementation of the measured capacity concepts in the Act and by the mechanisms specific for protection from competing imports; (2) those which reduce the investment costs of a project and its costs of operation (including tax exemptions on capital equipment, tax exemptions on raw materials and exemptions from payment of sales tax on finished products of pioneer enterprises); and (3) those which effectively lower the cost of obtaining equity capital such as making capital gains exempt from tax, if invested in registered enterprises or those which make capital raising easier by the participation of government financing institutions for the raising of debt capital.

While the investment priorities plan aims to attract Filipino investors, it also invites foreign firms to invest in specific areas of investments where the BOI deems that foreign participation can provide more sophisticated technology, greater financing and more effective marketing strategy. Included among the preferred areas are shipbuilding, copper smelting, manufacture of semi-conductors, integrated pulp and paper manufacture, integrated pulp and rayon manufacture, establishment of a petro-chemical complex, and oil explorations.

This plan further takes into account, the distribution of various industries not only in urban areas but in rural areas as well. Realizing that a more balanced growth can only be attained by diffusing the investments in various areas, the plan limits the number of establishments in an area to prevent over-crowding. This will not only serve to induce social and economic stability in areas where the enterprises will be established but it will likewise ease the country's rural-urban migration problem and thus effect a more smooth population redistribution.

### Republic Act 5490

This act established the country's first foreign trade zone in Mariveles, Bataan which lies northwest of Manila. It gives preference to the establishment of labor intensive industries, such

6/ Measured capacity refers to the amount of production volume by which present and foreseeable market demand exceed the existing capacity for producing any specific commodity.

7/ Social rate of return measures the marginal social productivity or the real gain to the economy of a given investment; labor intensiveness is measured by the number of jobs generated per peso invested in the project; and insufficiency gap represents the volume of demand which cannot be met by production facilities.

as electronic and electrical products, knitted and woven goods, garments, precision machinery and instruments, rubber, leather and plastic products, textiles, threads and yarns, ceramics, wood carving and food processing. Those industries allowed to operate within the zone may bring in the needed capital, machinery and raw materials or semi-finished products for processing, manufacturing or assembly for export, free from customs duty and internal revenue taxes. It is hoped that this will further stimulate the economy's productive ventures.

## CHAPTER XXV — BANKING, OTHER COMMERCIAL FINANCE AND INSURANCE

Individuals, business firms and the government who wish to expand their activities beyond their available financial resources are extended assistance by financial institutions which make funds (in the form of money or claim to money) available to them. Through this help, individuals are able to purchase consumer goods, meet emergency needs, and invest in land and houses; business firms are able to finance current output and acquire funds for modernization and growth; and the government's borrowing needs are adequately met.

Financial institutions do not only increase the available supply of capital goods but also contribute to their effective distribution by: (1) providing a market for the exchange of ownership of bonds, notes, mortgages, corporate shares and other financial assets; (2) providing an investment channel through which saved funds find their way into new investments; (3) providing a medium for diversification of investments of the small savers; and (4) extending credit to borrowers.

It is therefore, imperative that with the role these institutions play, the growth and development of the economy would be impossible to achieve without them. The extent to which they have helped in moulding the Philippine economy may be gleaned from the succeeding topics.

### CENTRAL BANK

The Central Bank is the sole administrator of the monetary and banking system of the country. It was created by virtue of R.A. 265, otherwise known as the Central Bank Act, with the three-fold objective of (1) maintaining monetary stability in the Philippines; (2) preserving the international value of the peso into other freely convertible currencies; and (3) promoting a rising level of production, employment and real income.

It acts as the financial adviser, fiscal agent and banker of the government. It keeps track of monetary development or adopts the necessary measures whenever there are strains in the economy. It is the official depository and creditor of the government as well as its political subdivision and instrumentalities, although it may designate other banks to accept deposits of public funds. Furthermore, it represents the government in all dealings, negotiations and transactions with the International Monetary Fund, International Bank for Reconstruction and Development and other international financial institutions or agencies.

As fiscal agent of the government, it operates through three of its departments; namely, Foreign Exchange Department which handles foreign exchange transactions of the Philippine government, its political subdivisions and instrumentalities; the Department of Loans and Credit which extends loans to the national and local governments, as well as financial assistance to small and medium sized industries; and the Securities Market Department which handles the government portfolio. Furthermore, it provides external funds required for: (a) the replenishment of the working funds of diplomatic officers abroad; (b) the servicing of external obligations; (c) the importation of equipment; and (d) the travel and operating expenses of military missions and other government functionaries abroad to various offices and bureaus of the government.

The Central Bank is also duty bound to act as the banker's bank. It acts as the depository of all other banks and as the source of loanable or additional capital funds through the rediscount system in order to regulate the volume, cost, availability and character of bank credit and to provide the banking system with the liquid funds in times of need.

## Money Supply

The Central Bank has the sole right and authority to issue currency as legal tender for all debts, both public and private within the territory of the Philippines. No other person or entity public or private can put into circulation notes, coins or any other object or document which may circulate as currency. The notes are liabilities of the Central Bank and are guaranteed by the government of the Republic of the Philippines. They should bear the signatures in facsimile of the President of the Philippines and the Governor of the Central Bank.

The Central Bank also prescribes the weight, fineness, designs, denominations and other characteristics of the coins. It has the power to demonetize and withdraw from circulation all notes and coins considered unfit for circulation and replace them with adequate notes and coins. Notes of any series or denomination which are more than five years old and coins which are more than ten years old are replaced, and such notes and coins that were called in for replacement remain legal tender for a period of one year from date of call. After this period, they cease to be legal tender but for the next three years, or for such a longer period as the Monetary Board may determine, they can be exchanged at par and without change at the Central Bank and by agents duly authorized by the latter for this purpose, after which the notes and coins which have not been changed are demonetized and cease to be a liability of the Central Bank.

Through the use of various monetary instruments, the Central Bank controls the money supply in the economy and maintains monetary stability and the international value of the peso. During inflation or rising prices when the purchasing power of the peso decreases, the Central Bank may restrict credit through the imposition of rediscount quotas and a higher reserve requirement on savings, time and current accounts, or it may charge higher interest rates on rediscounted notes and foreign exchange credit to regulate money supply and deflate the prices of commodities.

Money supply in the country consists of the currency in circulation (obtained by deducting from the currency issued by the Central Bank the inactive cash held in the vaults of the National Treasury and the Commercial Banking System) and the peso deposits subject to check (includes unused overdraft lines and managers' and cashiers' checks, excluding National Government and interbank deposits).

Due to the increasing monetary needs of the expanding economy money supply is observed to follow an ever-increasing trend. During the period 1962 to 1971 currency in circulation increased by 125.94 percent while the pesos deposits registered a 119.06 percent increase thereby, accounting for a 122.29 percent increase in total money supply in the country. The trend of increase for this period may be observed from the following table.

**Table XXV.1. — MONEY SUPPLY AT THE END OF EACH YEAR, 1962 — 1971**  
(In million pesos)

Year	Total	Currency in Circulation	Peso Deposits Subject to Check <sup>1</sup>
1962	2,504.7	1,172.9	1,331.8
1963	2,954.3	1,363.4	1,590.9
1964	2,873.8	1,324.7	1,549.1
1965	3,066.9	1,483.2	1,583.7
1966	3,371.3	1,543.4	1,827.9
1967	3,782.5	1,755.7	2,026.8
1968	3,981.9	1,777.5	2,204.4
1969	4,753.8	2,119.1	2,634.7
1970	5,047.4	2,410.0	2,637.4
1971	4,567.4	2,650.0	2,917.4

<sup>1</sup>Consists of peso deposits of private businesses and individuals, semi-government entities, city, provincial and municipal governments, U.S. government entities, unused overdraft lines and cashiers' and managers' checks.

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.



### International Reserve

The gold and foreign exchange assets of the Central Bank and the net foreign exchange holdings of commercial banks constitute the international reserve. Included in the country's international reserve aside from the U.S. dollars are Pound Sterling (United Kingdom), Canadian dollar (Canada), Swiss franc (Switzerland), Deutsche Mark (West Germany), French franc (France), Italian lira (Italy) and Dutchguilder (Netherlands).

The net foreign exchange holdings of commercial banks is the difference between the foreign exchange liabilities. The assets consist of balances abroad, foreign bonds and securities, foreign currency in vaults, unmatured export bills and other claims against non-residents while the liabilities consist of amounts due to banks abroad, U.S. government dollar deposits and other obligations to non-residents, such as import bills pending remittance to foreign banks, drafts issued outstanding and travellers' letters of credit paid in cash.

The international reserve of the Central Bank increased substantially between 1962 and 1971 although slight fluctuations are observed in the values within the intervening years. From \$75 million in 1962, the international reserve of the Central Bank increased to \$375.46 million in 1971 thereby increasing by approximately 400 percent within the ten-year period. However, the total international reserve did not register substantial increases during the period under study due to the deficits in foreign exchange holdings of commercial banks as seen in the following table.

**Table XXV.2. — INTERNATIONAL RESERVE OF THE PHILIPPINES, 1962-1971**  
(In million U.S. dollars)

Year	Total	International Reserve of the Central Bank	Foreign Exchange Holdings of Commercial Bank		
			Net	Gross	Liabilities
1962	140.84	75.00	65.84	76.34	10.50
1963	147.46	109.46	38.00	88.32	50.32
1964	38.44	123.28	(84.84)	74.30	159.14
1965	91.62	188.50	(96.88)	91.73	188.61
1966	144.82	166.09	(21.27)	114.15	135.42
1967	213.98	179.77	34.21	139.63	105.42
1968	187.57	161.40	26.17	145.67	119.50
1969	118.40	120.66	(2.26)	128.96	131.22
1970	213.22	250.96	37.74)	125.25	162.99
1971	244.15	375.46	(131.31)	148.47	279.79

Source: 1971 Central Bank Statistical Bulletin.

### Credit Portfolio

The Central Bank is authorized to grant loans and advances to the National Government, to the local government in the form of budgetary loans, to semi-government entities, to commercial banks to savings banks and to rural banks.

In 1971, the domestic credits of the Central Bank reached the ₱3,266.5 million mark thus exhibiting a slight increase of 2.48 percent from the 1970 figures of ₱3,187.6 million. For both years, the domestic securities comprised approximately 71 percent of the total credits recorded for each respective year. During the ten-year period, 1962-1971 domestic credits increased gradually and domestic securities made up more than a half of the total credits realized in each year.

**Table XXV.3. — DOMESTIC CREDITS OF THE CENTRAL BANK, 1962-1971**  
(In million pesos)

Year End	Total	Domestic Securities	Others Credits
1962	1,528.6	941.1	587.5
1963	1,561.2	821.3	739.9
1964	1,622.7	922.3	700.4
1965	1,584.8	877.9	706.9
1966	1,827.0	1,117.9	709.1
1967	2,171.2	1,388.4	782.8
1968	2,354.2	1,490.8	863.4
1969	2,951.0	2,116.8	834.2
1970	3,187.6	2,267.0	920.6
1971	3,266.5	2,303.7	962.8

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines

## BANKING FINANCIAL INSTITUTIONS

### Commercial Banks

All commercial banks are authorized to accept savings, fixed and current accounts, maintain safe deposit boxes, grant industrial, agricultural, commercial and miscellaneous loans, handle commercial letters of credits, drafts, trust receipts, travellers' cheques or domestic and foreign remittances. All are likewise allowed to conduct and gather credit information, purchase gold or silver bullion, bonds, treasury certificates and other kinds of securities. These banks are the only kind allowed to accept or create demand deposits and to engage in dollar trading which distinguishes them from all other banking institutions. Those functions and privileges are adequately defined by R.A. 337.

Commercial bank operations have a direct relationship to inflationary or deflationary tendencies. It exerts pressure on the expansion and contraction of money supply in the country by creating money through the instrument of credit. This is how vital a role the commercial banks play in the economy.

The formal birth of commercial banking was marked by the establishment of the Banco Español-Filipino in 1851. This bank was the official government bank during the Spanish regime which had the sole right to issue bank notes.

This was followed by the establishment of the Chartered Bank of India, Australia and China in 1873 and the Hongkong and Shanghai Banking Corporation in 1875. These banks contributed to the growth of the country's foreign trade through the extension of financial assistance to British firms which were operating in the country and competing with America and other foreign traders.

In 1902, a branch of the First National City Bank of New York (FNCB) was opened in Manila. Five years later, the Banco Español-Filipino was rechartered and was named the Bank of Philippine Islands. With the establishment of the Philippine National Bank (PNB) and the Philippine Trust Company in 1916, there were four commercial banks operating in the country, three of which were branches of foreign banks. Succeeding years saw the establishment of more banks. In 1920, the China Banking Corporation and Yokohoma Specie Bank Ltd. began operations. This was followed by the establishment of the People's Bank and Trust Company in 1926 and by the the Philippine Bank of Commerce and Bank of Taiwan in Davao in 1938. A year later, the Philippine Bank of Communications was established, the last before the Pacific War.

In 1941 domestic commercial banking system consisted of the Philippine National Bank, seven private commercial banks and six branches of foreign banks with a network of 22 provincial branches, 54 provincial agencies and three overseas branches. Of these banking institutions, PNB was the only institution which provided banking facilities outside Manila. Branches of foreign banks were primarily concerned with foreign trade and foreign exchange transactions.

During the Japanese Occupation, the PNB, Philippine Bank of Communication, the Philippine Trust Bank and the Bank of the Philippine Islands were reopened in addition to three Japanese banks. Although the banks suffered great losses, the recovery was rapid due to the generous government assistance and the rising tide of business activity. In 1945, three pre-war domestic commercial banks (PNB, China Banking Corporation and Bank of Communications) and four foreign banks (FNCB, Chartered Bank, Hongkong and Shanghai Bank and Netherlands Indische Handelsbank) were reopened. The year after, the Bank of Philippine Islands, Philippine Trust Bank, Bank of Commerce and People's Bank were reopened with the assistance of an appropriation allotted by CA 726 to rehabilitate and put into operation domestic banks remaining unopened.

With the expansion of foreign trade particularly imports from the United States and the improvement on domestic trade encouraged by increased supply and better transport and communication facilities, rapid expansion of the banking activities ensued. Between 1945 and 1949, the Bank of America was added to the commercial banking system. This bank absorbed the assets of Netherlands Indische Handelsbank. During the same period, branches and agencies in the provinces and cities were reopened and established. In 1949, there was a total of twelve commercial banks in operation, seven of which are domestic and five are foreign, with 30 provincial and city branches, 53 provincial agencies and 3 overseas offices (two of which were closed in the later part of the year.)

Between 1950 and 1959, seven new domestic commercial banks were established bringing the total to 18. This growth and expansion continued and was further accelerated by the combined influences of the last phases of rehabilitation activities and the initial phases of economic development pursued by the government. During the first half of the 60's, 22 new commercial banks were opened, bringing to 40 the total number of commercial banks.

During the preceding years, commercial banks have grown not only in scope and structure but also constituted a vital segment of the country's economy. As of 1971, there is a total of 690 commercial banking units in operation with 40 head offices and 650 branches and agencies.

These banks have resources aggregating to P16,054 million. As the number of commercial banks increased there has been an accompanying increase in the value of the resources of commercial banks.

**Table XXV.4. — AGGREGATE RESOURCES OF COMMERCIAL BANKS, 1962-1971**  
(In million pesos)

Year End	Resources	Percentage Increase
1962	4,076.6	—
1963	5,321.7	30.54
1964	5,928.9	11.41
1965	6,731.0	13.53
1966	7,631.3	13.38
1967	9,634.6	26.25
1968	10,910.6	13.24
1969	12,049.7	10.44
1970	14,066.1	16.73
1971	16,054.0	14.13

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines

Credits granted by commercial banks consist of loans, advances, discounts, overdrafts, domestic bills, customers' liability acceptances and export bills.

As of September, 1971, the total credits granted by commercial banks amounted to ₱21,327.2 million of which 98.32 percent was granted to the private sector. About 43 percent of the credits granted was invested in trade, 20 percent in manufacturing and approximately 17 percent was extended to banks and other financial institutions. Of those granted to the public sector, 58 percent went to government corporations and 38 percent to the national governments. The credits granted to the public sector has been observed to increase substantially during the last four years of the period under study (1962-1971) while the private sector's share continually increased over the years. During the ten year period, the total credit granted by commercial banks increased by 334 percent from ₱4,916.4 million to ₱21,327.2 million, as seen in the table presented below.

### Savings and Mortgage Banks

A savings and mortgage bank is any corporation organized primarily for the purpose of accumulating the small deposits of the public and reinvesting them in bonds, in loans secured by pledge or chattel mortgage or real estate mortgage or in bank deposits. It can issue mortgage and chattel mortgage certificates, buy and sell them or receive them in payment of loans. However, it cannot engage in foreign exchange trading, neither can it open letters of credit. It can grant all kinds of loans extendible by commercial banks except character loans or overdraft lines which are payable on a medium or long term basis.

Table XIV-6 TOTAL CREDITS GRANTED BY COMMERCIAL BANKS CLASSIFIED BY INDUSTRY, 1962-1971  
(In million pesos)

YEAR	GRAND TOTAL	PRIVATE SECTOR										PUBLIC SECTOR				
		Total	Agriculture	Mining and Quarrying	Manufacturing	Construction	Public Utility	Service	Trade	Banks & other financial institutions	Real Estate	Consumption	Total	National Government	Local Government	Government
1962	4,916.4	4,916.6	786.1	50.0	1,791.9	77.5	115.1	61.5	1,709.1	170.5	60.8	93.1	0.8	0.8	0.6	-
1963	6,826.3	6,739.2	1,052.0	58.8	2,092.9	124.9	175.4	87.3	2,545.6	372.7	90.5	139.1	87.1	86.9	0.2	-
1964	7,349.7	7,349.4	1,105.9	70.3	2,238.3	114.5	148.5	94.5	2,773.5	571.0	85.2	147.7	0.3	0.2	0.1	-
1965	7,766.7	7,754.2	1,141.6	51.1	2,287.8	142.8	144.4	83.8	3,022.6	650.7	91.8	137.6	12.5	8.1	4.4	-
1966	8,165.6	8,164.1	1,260.9	70.6	2,615.4	132.7	168.7	161.6	2,627.3	803.2	120.5	203.2	1.5	0.7	0.8	-
1967	9,754.1	9,733.8	1,551.0	60.6	2,963.6	151.6	200.7	169.1	3,413.2	826.9	179.3	237.8	0.3	0.3	-	-
1968	15,336.0	14,752.2	1,652.0	93.1	3,583.3	191.8	257.7	250.4	6,782.7	1,495.4	221.1	222.7	583.8	83.0	4.8	496.0
1969	16,389.5	15,601.3	1,772.0	93.0	3,656.2	223.8	172.3	263.9	7,130.0	1,717.3	247.8	325.0	788.2	84.7	9.7	693.8
1970	21,951.7	21,023.0	2,194.5	95.7	4,055.8	186.0	277.3	368.5	9,795.2	2,774.9	410.1	868.0	928.7	127.7	17.1	788.95
1971*	21,327.2	21,076.7	1,764.1	228.7	4,240.4	172.9	341.3	369.7	9,053.0	3,598.4	371.0	937.2	250.5	95.7	8.8	146.0

\* As of September, 1971

Source: 1971 Central Bank Statistical Bulletin.

Total resources of savings banks amounted to ₱856.5 million as of November, 1971. Loans granted during the same year amounted to ₱263.8 million of which about ₱.98 million went to production, ₱.08 million went to trade and the substantial amount of ₱263 million was utilized for other purposes. Of the latter an estimated ₱158.4 million went to real estate and ₱104.3 million went to consumption. The total loans granted by savings classified by purpose for the period 1962-1971 are shown below.

**Table XXV.6. — TOTAL LOANS GRANTED BY SAVINGS BANKS, CLASSIFIED BY PURPOSE**  
**1962 — 1971**  
**(Thousand pesos)**

Year	Total	Production	Trade	Contract Construction	Others
1962	31,472	710	351	—	30,411
1963	35,093	1,024	681	—	33,388
1964	68,856	9,128	752	—	58,976
1965	66,111	9,059	2,515	—	54,537
1966	197,479	5,970	1,219	—	100,290
1967	129,377	1,722	202	—	127,453
1968	144,069	22,995	208	1,280	119,586
1969	105,726	3,991	59	946	100,730
1970	115,014	1,810	85	6	113,113
1971	263,790	978	76	—	262,736

Source: Central Bank Statistical Bulletin, 1971, Central Bank of the Philippines.

Investment of savings banks in the form of securities increased through the years. From only about ₱10.5 million in 1962, the investments increased to ₱133.4 million in 1971. During the period under review, a greater percentage of the investments was accounted for by the national government with the exception of the year 1969 when the investments to the local governments and semi-government entities made up 76.43 percent of the total investments.

**Table XXV.7. — INVESTMENTS OF SAVINGS BANKS, 1962 — 1971**  
**(Million pesos)**

INVESTMENTS IN SECURITIES				
Year	Total	National government	Local govern- ment & semi- government entities	Private entities
1962	10.5	10.5	—	—
1963	18.4	18.4	—	—
1964	16.8	16.8	—	—
1965	19.8	19.8	—	—
1966	34.3	27.7	6.6	—
1967	44.8	25.8	19.0	—
1968	33.3	16.7	16.6	—
1969	115.0	27.1	87.9	—
1970	122.7	99.8	22.6	0.3
1971	133.4	86.8	45.9	0.7

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.

### Rural Banks

The approval of R.A. 720 otherwise known as the "Rural Banks Act", on June 6, 1962 provided for the establishment of rural banks. This is in line with the aim of Congress to expand the rural economy by making available to the people means of facilitating and improving their production activities and encouraging cooperatives.

The rural banks are geared at meeting the following objectives: (1) to place within the easy reach and access of the people credit facilities at reasonable terms; (2) to provide technical assistance regarding farm management and proper use of credit in cooperation with other government agencies serving agriculture; (3) to mobilize rural savings; and (4) to create the proper climate and provide incentives for the growth and establishment of cooperatives. Rural banks specialize in providing the short term credit needs of agriculture and commerce. However, borrowers are limited to: (1) farmers owning or cultivating not more than 50 hectares of land for agricultural production; (2) merchants with capital investments not exceeding ₱25,000; (3) operators of rural industries or enterprises with capital investments not exceeding ₱25,000; (4) operators of essential rural industries or enterprises irrespective of the amount of capital involved; and (5) cooperatives of small farmers and merchants. (Farmers include producers of livestock and poultry and fishermen and fishpond operators.)

Rural banks are also allowed to accept deposits subject to withdrawal on demand by check. With a written permission from the Monetary Board, it may perform the following commercial banking functions: (1) to accept savings, time and demand or current deposits; (2) to act as collection agent and correspondent for other financial institutions; (3) to act as trustee over estates or properties of small farmers and small merchants; (4) to rediscount its eligible agricultural, commercial and industrial paper up to 80 per cent of the value of the paper rediscounted either with the PNB or with Development Bank of the Philippines or with other Banks and their branches and agencies. However, a rural bank may not issue letter of credit, buy and sell foreign exchange or deal in gold and silver bullion.

The supervision and examination of all rural banks is vested on the Department of Rural Banks of the Central Bank. It places limits on the maximum credit allowed to any individual borrower, prescribes the interest rate and determines the loan period and loan procedures. It undertakes regular credit examination and institutes periodic surveys of loans and lending procedures, audits, test checks each and other transactions of the rural banks. It provides for the manner in which technical assistance shall be extended to rural banks and it also conducts training courses for the personnel of rural banks.

For the expansion of the rural banking system, incentives have been adequately provided for which include: (1) issuance of preferred share of the government for every common share issued to private stock holders; (2) limitation on the dividends which may be declared on the government's preferred shares to a maximum of 2 percent per annum; (3) exemption from the payment of all taxes and government charges on rural banks having a capitalization not exceeding ₱1,000,000 excluding the government's preferred shares; (4) rediscounting of eligible papers at preferred rates ranging from 2 percent to 3 percent per annum; (5) exemption from the obligation of contributing to the cost of supervision and examination of rural banks by the Central Bank; (6) free servicing of loanable documents by any Justice of the Peace and Register of Deeds in connection with loans or transactions extended by rural banks amounting to not more than ₱2,000; (7) free technical assistance including training of officials and employees of the bank; and (8) other special services rendered by the Central Bank and other government agencies geared towards increasing the effectiveness and encouraging the growth of rural banks.

Posed with these incentives, the number of rural banks in operation increased from 224 in 1962 to 539 in 1971 of which 63 are authorized to accept demand deposits. Majority of these rural banks numbering 375 are in Luzon, a hundred are in the Visayas and 64 are in Mindanao. With the increase in the number of rural banks in operation through the years, their aggregate resources increased concomitantly.

During the first ten months of 1971, the resources of rural banks aggregated to ₱768.8 million. This is due largely to a net receipt of deposits of ₱66.2 million, a net work of ₱25.8 million and an increase of the Central Bank loans outstanding to rural banks of ₱19.4 million.

**Table XXV.8. — RURAL BANKS IN OPERATION AND THEIR AGGREGATE RESOURCES, 1962-1971**

Year	Number	Resources (In thousand pesos)
1962	224	140,405
1963	252	185,520
1964	283	245,794
1965	309	279,007
1966	338	323,290
1967	369	408,766
1968	411	468,714
1969	452	562,852
1970	489	654,852
1971	539	768,847 <sup>1</sup>

<sup>1</sup> As of October, 1971.

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.

With these available resources, the rural banks granted loans amounting to P561 million between January and October of which 89.91 percent was for agricultural purposes. The total loans granted by rural banks exhibited annual increases during the period 1962 to 1971 although in varying degrees. For the period under study, loans for agricultural purposes made-up a substantial portion of the total loans granted while those used for commercial, industrial and other purposes contributed relatively smaller percentages to this total amount.

**Table XXV.9. — LOANS GRANTED BY RURAL BANKS, CLASSIFIED BY PURPOSE 1962 — 1971 (Thousand pesos)**

Year	Total	Agriculture	Commercial	Industrial	Others
1962	130,903	101,390	22,281	5,481	1,745
1963	178,788	143,042	26,778	7,250	1,718
1964	245,844	201,316	33,761	9,282	1,485
1965	260,751	215,455	34,512	9,717	1,067
1966	295,392	247,369	36,604	10,352	1,065
1967	389,178	334,905	40,652	12,013	1,608
1968	433,819	378,147	40,800	12,884	1,988
1969	472,232	416,841	39,642	13,786	1,963
1970	558,232	496,618	43,177	15,723	3,283
1971 <sup>1</sup>	560,526	503,960	37,990	14,680	3,896

<sup>1</sup> Includes January to October only.

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.

### Development Banks

The Development Bank of the Philippines replaced the Rehabilitation Finance Corporation (established under R.A. No. 85) on June 14, 1958 under R.A. 2081. It is entrusted with the responsibilities of providing credit facilities for the rehabilitation, development and expansion of agriculture and industry; the reconstruction of property damaged by war; the broadening and diversification of the national economy and the promotion and establishment of private development banks in provinces and cities.

It has been envisaged by the government as an instrument which would aptly provide new techniques in development financing which are essential to set the pace in economic growth through its agricultural and industrial development prospectives, its financing policies and schemes and its loan administration.

It grants loans for home building or home financing projects for the rehabilitation, establishment or development of any agricultural and/or industrial enterprises including public utilities, mining, livestock, industry and fishing, whether offshore or inland. Loans may be granted to provincial, city and municipal government for the rehabilitation, construction or reconstruction of public markets, irrigation, waterworks, toll bridges, slaughter houses; for cadastral survey and other self-liquidating or income-producing services, or the purchase and acquisition of municipal electric power plants and heavy equipment and machinery. Government agencies or government-owned or controlled corporation may also be granted loans to be used for the production and distribution of electric power, for the purchase and subdivision of rural and urban estates, for housing projects, for irrigation and waterworks system, and for other essential industrial and agricultural projects. To facilitate the production and marketing of crops as well as the acquisition of essential commodities, it grants loans to cooperative associations. Individual employees in a government-owned or controlled corporation or a private corporation engaged in the development and/or expansion of agriculture and industry are also granted loans to enable them to buy shares of stock directly from such corporation, thus permitting them to participate in the ownership and receive a share in the profits.

The Development Bank of the Philippines may also purchase preferred redeemable shares of stock, securities and obligations. It may also underwrite, purchase, own, sell, mortgage or dispose of stock, bonds, debentures, securities and other evidences or indebtedness issued for or in connection with any project or enterprise that it financed. It may also issue bonds, debentures, securities, collaterals and other obligations and/or renew or refund the same upon recommendation of the Secretary of Finance and with the approval of the President.

The introduction of the DBP Bonds proved to be an effective fund-generating instrument in times of tight credit. Being available on easy monthly installments, it has provided opportunities for the less financially able citizens to become investor entrepreneurs on a massive scale. This promotes a sense of involvement among the citizens in the economic development of the country.

To complement the private sector's effort in food production as well as to assist the food production program of the administration, the DBP also introduced the concept of large scale food production with full government assistance and financing, along with its ordinary financing programmes for agricultural projects. It is fully supporting a terminal food market in Greater Manila which serves as a distribution center of the agricultural products of 27 provinces in Luzon, Visayas and Mindanao. This market, the Greater Manila Terminal Food Market, is a nationally coordinated produce marketing system that is geared to correct imbalances in food supply and demand, provide impetus to food production and stabilize consumer prices.

Aside from financing industries, the DBP also studies possibilities of maximizing the productivity of these enterprises, cutting down their costs and maximizing their profits. It makes a thorough study of the backward and forward linkages of the enterprises it has financed and intends to finance, finds sources of raw materials as well as current and prospective markets for their products, etc.

### **Private Development Banks**

Republic Act No. 4093 authorized the establishment of private development banks to meet the needs for capital and the demands for adequate investment credit of Filipino entrepreneurs by placing within their reach medium or long-term loans at reasonable cost for industrial and agricultural growth.



A private development bank is organized in the form of a stock corporation with a paid-up capital of not less than ₱4 million for class A, ₱2 million for Class B, and ₱1 million for class C, with at least 60 percent of the capital stock subscribed by the private sector and owned and held by Filipinos. Any private development bank accepts savings and time deposits; acts as correspondent and collection agent for other financial institutions; and rediscounts paper with the Central Bank, Philippine National Bank or other banks and their branches and agencies. The Central Bank specifies the nature of papers deemed acceptable for rediscount as well as the rediscount rate to be charged by any of these institutions.

In cooperation with private development banks, banking and non-bank financial institutions such as the Development Bank of the Philippines, the Philippine National Bank, the Government Service Insurance System, the Social Security System, the National Economic Council, the Department of Agriculture and Natural Resources, the Department of Commerce and Industry and other related agencies, corporations or instrumentalities of the government may provide adequate assistance to the agricultural and industrial sector in the form of loans and technical know-how.

The preceding years saw the development banks expanding in its activities and in resources with which to finance these activities. In 1962, private development banks and the Development Bank of the Philippines operated with resources aggregating to ₱992.8 million. However, after a span of ten years their resources amounted to ₱3,834.1 million, exhibiting an increase of 286.19 percent. During the intervening years the value of their resources increased moderately, the percentage increases varying from as low as 8.52 to as high as 23.60.

**Table XXV.10. — AGGREGATE RESOURCES OF DEVELOPMENT BANKS, 1962-1971**

Year	Resources (million pesos)	Percentage Increase
1962	992.8	—
1963	1,100.0	10.80
1964	1,193.7	8.52
1965	1,346.2	12.78
1966	1,599.7	18.83
1967	1,977.2	23.60
1968	2,346.2	18.66
1969	2,832.8	20.74
1970	3,219.0	13.63
1971 <sup>1</sup>	3,834.1	19.11

<sup>1</sup> Recorded as of November, 1971.

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.

There has been marked fluctuations in the loans granted by development banks during the last decade. In 1971, their credit operations slackened with a drop in the aggregate loans they extended by 38.97 percent relative to the 1970 figures. During the period under study, the credit operations proved to be at its peak in 1969, with the loans granted amounting to ₱598.7 million, as compared to the amount granted in 1971 of ₱116.6 million. Furthermore, most of the loans were granted to the agriculture, fisheries and forestry sector and to the manufacturing sector as may be observed from the table below.

### Postal Savings Bank

The Postal Savings Bank recorded resources amounting to ₱87.2 million in 1971. This represents a slight decrease of 0.68 percent from the value of its resources in 1970. During the last decade however, its resources exhibited an increase of 20.94 percent, from ₱72.1 million in 1962 to ₱87.2 million in 1971. With its funds entrusted to the DBP, the Postal Savings Bank did not grant any loan.

Table XXV. 11 - LOANS GRANTED BY DEVELOPMENT BANKS <sup>1/</sup>, CLASSIFIED BY INDUSTRY  
1962 - 1971  
(Thousand Pesos)

Year	TOTAL	Agriculture Fisheries & Forestry	Mining and Quarrying	Manufac- turing	Contract Construction	Real Estate	Public Utilities	Services	Government
1962	231,017	55,206	9,886	109,204	-	8,246	43,687	2,302	2,486
1963	268,269	63,484	1,395	165,445	10	10,670	20,428	867	5,990
1964	313,628	84,904	15,046	120,691	151	29,597	15,294	1,356	46,589
1965	134,587	62,171	295	36,499	142	7,593	12,172	1,763	13,952
1966	182,897	78,289	118	72,457	138	12,771	12,563	1,646	4,915
1967	384,654	147,641	2,104	157,334	324	29,155	25,552	1,451	21,093
1968	435,577	158,887	1,564	182,047	485	50,918	23,187	2,798	15,692
1969	598,674	114,957	367	383,012	21	42,221	39,511	1,578	17,007
1970	161,971	64,864	981	44,830	1,313	9,033	37,578	2,954	418
1971	116,553	61,496	450	16,727	478	22,108	6,319	2,576	6,499

<sup>1/</sup> Consists of the Development Bank of the Philippines and private development banks before adjustments reductions and/or cancellation of loans approved.

Source: Central Bank Statistical Bulletin 1971.

Table XXV.12. — RESOURCES OF THE POSTAL SAVINGS BANKS, 1962-1971

Year	Resources (Million pesos)	Percentage Increase/Decrease
1962	72.1	—
1963	74.7	3.61
1964	77.6	3.88
1965	85.7	10.44
1966	80.2	- 6.42
1967	82.7	3.12
1968	86.5	4.59
1969	88.2	1.96
1970	87.2	- .45
1971	87.2	1 .68

Source: 1971 Central Bank Statistical Bulletin, Central Bank of the Philippines.

## NON-BANK FINANCIAL INSTITUTIONS

### Government Non-Bank Financial Institutions

#### Government Service Insurance System (GSIS)

The Government Service Insurance System was established on May 31, 1937 with the end in view of promoting the welfare of its members (consisting of regular government employees) and their dependents. It derives its income from insurance premiums, interest on investments, commission on reinsurance of insured properties, service fees and miscellaneous services. It pays benefits to its members in the form of proceeds of life and retirement insurance claims as well as dividends. The benefit payment it has paid has continually risen with the increase in its memberships. From ₱54.54 million in 1961, its benefit payments rose to ₱183.41 million in 1970 thus exhibiting an increase of 236.28 percent. The trend of increase may be observed from the table below.

**Table XXV.13. — BENEFIT PAYMENTS TO GSIS MEMBERS, 1961-1970**  
(In thousand pesos)

<b>Fiscal Year</b>	<b>Total</b>	<b>Retirement Insurance Fund</b>	<b>Life Insurance Fund</b>	<b>Property Insurance Fund</b>	<b>Miscellaneous (Dividend &amp; pension)</b>
1961	54,535.30	15,717.94	25,832.70	8,048.86	4,935.80
1962	59,866.26	16,445.99	28,288.32	8,695.55	6,436.50
1963	69,125.93	18,160.95	31,346.76	10,670.02	8,948.20
1964	78,498.55	20,895.41	33,782.93	10,842.09	12,978.12
1965	91,320.09	23,645.54	36,504.37	14,832.82	16,337.36
1966	108,295.94	29,026.66	46,184.14	13,609.35	19,475.79
1967	123,640.85	34,918.12	53,251.68	12,729.25	22,741.80
1968	136,282.61	43,946.37	52,045.44	14,804.20	24,586.51
1969	169,019.27	50,569.57	78,018.00	12,747.49	26,784.12
1970	183,408.17	56,630.06	85,601.00	12,490.04	28,687.07

Source: 1970 GSIS Annual Report.

The GSIS operates an individual equity insurance under two separate distinct funds the Life Insurance Fund which operates like a private life insurance and its Property Insurance Fund which operates like a private non-life insurance. For this purpose it issues an insurance policy contract on the basis of individual equity for every insured person or property. It then declares dividends from the profits of these operations.

Under the Barrio Officials Insurance Fund, the GSIS extends insurance protection to duly elected barrio councilmen, barrio secretaries and barrio treasurers throughout the country in cases of their death, disability or accidental injury.

The construction and development of housing projects is a continuing activity of the GSIS, aimed at providing low cost housing to its members. Some of its housing projects include the GSIS Heights in Matina, Davao City and the GSIS Village in Quezon City. Project studies are also being undertaken to determine the feasibility of the development of the Payatas Property in Quezon City; the Alegre-Guzman Estate Trece Martires, Cavite; the Buenavista Estate in Baguio City and the Palos Verde Subdivision in Novaliches, Quezon City.

The GSIS also sponsors a scholarship and training program to accommodate duly qualified children of the members of the system in line with the government program for scientific advancement by creating a pool of science and technology oriented manpower.

The activities of the GSIS covers the underwriting of insurances on life, property, mortgage redemption and salary loan redemptions. The value of the insurances it has underwritten has continually risen through the years as may be observed from the table below. From ₱2230.7 million in 1961 the insurance coverage of the GSIS reached ₱5271.5 million in 1970. A substantial portion of this amount may be attributed to the property and life insurances which made up an average of 56.54 and 36.65 per cent, respectively of the total values during the period under review.

**Table XXV.14. — VALUE OF INSURANCE UNDERWRITER BY THE GSIS BY TYPE**  
**1961-1970**  
(In million pesos)

Fiscal Year	Total	Life Insurance	Property Insurance	Mortgage Redemption Insurance	Salary Loan Redemption
1961	2,230.7	719.2	1,371.7	50.5	89.3
1962	2,649.6	776.8	1,711.2	57.9	103.7
1963	2,863.5	880.0	1,802.2	65.9	115.4
1964	3,157.8	1,031.0	1,917.0	73.4	136.4
1965	3,671.6	1,295.3	2,129.1	89.8	157.4
1966	4,283.9	4,283.9	2,456.2	106.9	172.2
1967	4,402.4	1,748.6	2,290.4	129.6	233.8
1968	5,338.2	1,968.1	2,949.0	162.7	258.4
1969	4,917.9	2,147.0	2,310.1	190.9	269.9
1970	5,271.5	2,312.8	2,431.4	228.4	298.9

Source: 1970 GSIS Annual Report, Government Service Insurance System

The GSIS invests monetary collections mostly in salary loans, policy loans, real estate mortgage loans, stocks and bonds and investments thru the DBP. Coming out on top of its investment portfolio in 1970 are real estate mortgage loans amounting to ₱1,005.7 million, followed by stocks and bonds valued at ₱370.5 million, salary loans aggregating to ₱298.9 million and policy loans summing up to ₱156.3 million as shown in Table XXV.15. It has continually increased its investments in these fields by an annual average of 14.03 percent as observed during the last decade with the exception of its investments thru the DBP where there had been no recorded values during the last five years.

**Table XXV. 15. — VALUE OF GSIS INVESTMENTS, 1961-1970**  
(In million pesos)

Fiscal Year	Total	Salary Loans	Policy Loans	Real estate mortgage loans	Stocks and Bonds	Investment	Miscellaneous
1961	505.6	89.3	36.9	202.7	138.5	36.7	1.5
1962	586.7	103.7	41.8	232.4	164.5	38.5	5.8
1963	657.6	115.4	47.2	249.6	199.7	41.3	4.4
1964	798.8	136.4	53.8	289.1	236.8	43.6	39.1
1965	984.3	157.4	64.0	430.6	248.2	45.7	38.4
1966	1,123.3	172.2	75.8	559.5	290.0	—	25.8
1967	1,267.8	233.8	91.5	657.1	266.2	—	19.2
1968	1,446.0	258.4	108.3	758.2	298.1	—	23.0
1969	1,642.3	269.9	131.4	859.6	358.6	—	22.8
1970	1,854.0	298.9	156.3	1,005.1	370.5	—	22.6

Source: 1970 GSIS Annual Report, Government Service Insurance System.

As measured by its assets, the GSIS may be said to have grown rapidly since its organization. Its assets valued at ₱1,172.9 million in 1961, exhibited an average annual increase of 8.67 percent during the ten-year interval, finally recording a total of ₱2,667.7 million in 1970. The total reserves of the system and its free surplus likewise followed a general upward trend over the years as may be observed from the table below. It is from the free surplus shown in the table below, that the Board of Trustees allocate an amount for distribution as dividends to its members.

**Table XXV.16. — ASSETS, RESERVES AND SURPLUS OF THE GSIS, 1961-1970**  
(In million pesos)

Fiscal Year	Total Assets	Total Reserves	Free Surplus
1961	1,172.9	1,152.2	8.4
1962	1,173.8	1,141.0	13.5
1963	1,293.5	1,252.0	18.5
1964	1,439.7	1,386.1	24.2
1965	1,622.8	1,547.9	25.0
1966	1,805.5	1,706.4	30.7
1967	1,989.6	1,890.5	37.4
1968	2,239.3	2,100.7	43.5
1969	2,510.7	2,322.8	48.7
1970	2,667.7	2,537.7	54.3

Source: 1970 GSIS Annual Report, Government Service Insurance System.

### Social Security System (SSS)

The Social Security System started operations on September 1, 1957 in accordance with R.A. 1161 with the aim of alleviating the social problems that arise on account of sickness, disability, retirement or death and reducing the severity of their consequences by compensating a large part of the resulting loss of income. It is similar to the GSIS in the operation of their social security system with its sickness, disability, death and retirement fund equivalent to GSIS retirement fund. Its members consist of employers and employee of private enterprises.

Consistent with its goal of social policy, the SSS invests in service loans and government bonds which yield relatively low returns, and also in higher yield securities all of which have social and economic worths. Its initial investments of ₱6 million at the start of its operations in 1957 increased to ₱212.9 million in 1962 and finally, as presented below, to an all time high of ₱1,265.8 million in 1971. During the last decade, the year-end investments of the system annually increased by an average of 19.85 percent.

**Table XXV.17 — VALUE AND PERCENTAGE INCREASE OF INVESTMENTS OF THE SSS, 1962-1971<sup>1</sup>**  
(In million pesos)

Year	Investments	Percent Increase
1962	212.9	—
1963	275.4	29.36
1964	348.9	26.69
1965	428.8	22.90
1966	534.2	24.58
1967	596.6	11.68
1968	780.8	30.87
1969	919.7	17.79
1970	1,085.5	18.03
1971	1,265.8	16.61

<sup>1</sup> Year-end value of investments.

Source: 1971 SSS Annual Report, Social Security System.

The SSS grants housing loans, salary loans and educational loans. It also grants community hospital loans to augment hospital and medical facilities especially in the rural areas as a prerequisite to an orderly implementation of the Medical Care Law. It further supports the PNB and the DBP to alleviate their tight liquidity positions. It gives high priority to government securities which currently gives higher average yield than service loans and private securities.

To give SSS members a chance to acquire an equity in private enterprises, encourage capital formation and dispersion and strengthen the middle income population, it grants loans for the purchase of corporate stocks. It also supervises a long-term credit program for small-scale industries in the cooperation with the University of the Philippines Institute of Small Scale Industries.

It grants benefit payments to its members in the form of sickness, retirement, death and disability pays. Due to its growing membership the aggregate benefit payments it made to its members had increased substantially during the last ten years. In 1971, it made a total of ₱55.020 million benefit payments to its members, 37.38 percent of which are in the form of retirement pays, 33.42 percent are sickness benefit pays, 23.05 percent death benefit pays and the smaller, percentage of 6.15 disability pays.

**Table XXV. 18. — BENEFIT PAYMENTS MADE BY THE SSS TO ITS MEMBERS, 1962-1971**  
(In thousand pesos)

Year	Total	Retirement	Sickness	Disability	Death
1962	6,423	559	2,028	957	2,888
1963	7,937	1,001	2,556	1,050	3,330
1964	10,848	1,725	3,583	1,217	4,323
1965	14,116	2,363	5,365	1,190	5,198
1966	18,317	3,925	6,733	1,224	6,435
1967	28,286	6,783	12,696	1,231	7,576
1968	37,566	10,865	16,130	1,618	8,953
1969	43,640	13,502	19,026	2,241	8,871
1970	48,896	16,549	19,118	2,579	10,650
1971	55,020	20,566	18,388	3,584	12,682

Source: 1971 SSS Annual Report, Social Security System

The SSS was able to finance and continue its healthy operation over the year through its yearly earnings which has constantly followed an upward trend since it started its operations. From ₱37 thousand in 1957, its earnings increased to ₱8.55 million in 1962 and to a relatively big amount of ₱79.3 million in 1971. Table XXV.19 shows the increasing yearly earnings and the corresponding year-end assets.

Aside from its earnings it was able to accumulate assets amounting to ₱225.2 million in 1962 from its initial assets of ₱6.4 million in 1957. This value further increased during the span of ten years by 491 percent thus realizing assets amounting to ₱1,330.6 million in 1971.

**Table XXV.19. — EARNINGS AND ASSETS OF THE SSS, 1962-1971**  
(In thousand pesos)

	Yearly Earnings	Year-end Assets
1962	8,553	225,188
1963	12,274	295,230
1964	16,302	376,888
1965	19,506	471,821
1966	27,434	583,538
1967	32,929	696,290
1968	40,532	820,616
1969	51,977	963,203
1970	66,360	1,128,178
1971	79,315	1,330,613

Source: 1971 SSS Annual Report, Social Security System

### Agricultural Credit Administration (ACA)

The Agricultural Credit Administration replaced the Agricultural Credit and Cooperative Financing Administration (ACCFA) under R.A. No. 3844 also known as the Agricultural Land Reform Code. Under the provisions of this act the ACA is to be one of the agencies for land reform with the National Land Council as its policy-making body.

The ACA was specifically designed to help farmers elevate their living standards so as to make them active factors in the country's economic development. Its activities are therefore geared at raising the economic well-being of the rural populace by increasing their agricultural production. To achieve this end, it provides the farmers the necessary technical guidance and credit assistance for the cost of farm operations and production inputs.

The government grants liberal credit assistance to the small farmers and agricultural cooperative associations through the ACA. As discussed in previous chapters, the ACA grants four types of loans; namely, production, commodity, facility and marketing loans.

A major portion of the loans granted from fiscal year 1960-61 to 1969-70 were of the production and commodity type. This two types of loans formed an average of 58.84 and 36.42 percent, respectively of the total loans granted during the period under review. A substantial increase of 23.54 percent in the total loans granted was exhibited within the same period. During the fiscal year 1969-1970 the total loans granted amounted to ₱45.58 million of which 67.84 percent was production loans and 14.39 percent was commodity loans as shown below.

**Table XXV.20. — LOANS RELEASED BY THE ACA BY TYPE, 1961-1970**

Fiscal Year	Total	Production	Facility	Commodity	Marketing
1960-61	1,857,677	1,248,367	54,107	533,203	22,000
1961-62	7,102,311	787,108	81,383	6,138,920	94,900
1962-63	7,174,898	1,842,110	640,506	4,692,152	—
1963-64	5,189,708	2,905,110	170,016	2,114,582	—
1964-65	12,126,236	9,135,392	7,500	2,958,344	25,000
1965-66	13,945,879	9,113,435	22,500	4,464,944	345,000
1966-67	25,214,327	16,315,959	24,542	8,539,968	333,858
1967-68	32,070,115	23,902,006	71,762	6,987,791	1,108,556
1968-69	28,963,544	23,380,375	303,260 <sup>1</sup>	4,761,909	518,000
1969-70	45,582,861	30,922,611	483,192 <sup>2</sup>	6,561,467	7,615,591

<sup>1</sup> Includes operating capital loan amounting to ₱150,000.

<sup>2</sup> Includes operating capital loan amounting to ₱142,000.

Source: Agricultural Credit Administration.

In an effort to consolidate its functions and organization, it encourages the organization of farmers into strong cooperative associations. Furthermore, it saw the channeling of loans to sound and well-managed FACOMAS to be efficient and economical.

The progress of ACA may be gauged from the increase in the number of farmers it has served, a wider geographical coverage, the great increase in the volume of loans it has granted and the organization of new and better-managed FACOMAS. It plays a vital role in the Land Reform Program, the Rice and Corn Self-Sufficiency Program and the community development projects of the Central Luzon Development Program.

### **National Investment and Development Corporation (NIDC)**

The National Investment and Development Corporation is an investment subsidiary of the Philippine National Bank. Its operations are directed towards the promotion of export-oriented industries, the development of the country's infrastructure and assistance to the country's basic industries.

It contributed much to the expansion and continued development of the coconut industry by financing the operation of the Coco-chemical Philippine Incorporated (CCPI), an integrated coconut industrial complex operating a plasticizer plant in Bo. Cotta, Lucena City. This is one of the most modern coconut oil extracting plant in the world. The three operating NIDC oil mills, Betiak Incorporated and the 250-tonner in Jose Panganiban, Camarines Norte owned by Coconut Complex Philippines Incorporated and this new oil mill project have a combined output which makes NIDC assisted projects the top coconut oil producers in the country. The assistance it has extended to this industry resulted to substantial foreign exchange earnings for the Philippines.

It has also taken steps to help attain self-sufficiency in rice by financing an extensive rice production project in its San Jose, Mindoro farm. In 1970, the NIDC rice project planted 790 hectares which produced 41,000 cavans of palay. This improved production was due to the checked rat infestation which used to plague the area through technical assistance from a German rat expert and technicians from the Bureau of Plant Industry, the employment of the most recent farm techniques and the use of miracle rice seedlings.

Another worthy undertaking of the NIDC is its assistance to the Dacongcong project, which gives small farmers a chance to ultimately own a sugar mill under a cooperative basis and eventually provide the farmers a capital which would stimulate other activities. It has also initiated another socio-economic projects which would help the fishermen living in the coastal towns of Bohol and other outlying islands, through the establishment of an ice and cold storage plant in Tubigon, Bohol that would settle their storage and marketing problems. This plant is designed to be operated eventually by the fishermen themselves.

To help develop import substitute commodities, the NIDC assisted the Central Textile Mills, one of the biggest integrated textile mills in the country in both management and financial aspects. It has also made available its facilities for the construction of a white cement plant in Cebu which would utilize our available raw materials, generate employment, save dollars (being an import substitute) and earn more foreign currency through exports.

The Corporation also contributed in the rehabilitation and management of the Asbestos Cement Products Philippine Incorporated, (ACPPPI) which manufactures a wide assortment of construction items like asbestos, cement pipes, roofing materials and partition channels under the brand name "Italit". It is now in full production to meet the contract shipment for the Brunel government and the needs of local housing projects.

The NIDC also extended financial assistance in the modernization and expansion of the telecommunication system of the Philippine Long Distance Company (PLDT), the largest and oldest in the country. A recently installed switching station of a suburban telecommunication firm, Republic Telephone Company, was also realized through the financial assistance of the NIDC.

In 1970, the financial accommodations it granted to these various industries were recorded as follows:



**Table XXV.21 — FINANCIAL ACCOMMODATIONS EXTENDED BY THE NIDC CLASSIFIED BY INDUSTRY, 1970**

I n d u s t r y	Value	Percent of Total
	(In million pesos) Total	
	<b>838.7</b>	<b>100.00</b>
Transport, Storage & Communication	578.8	69.01
Manufacturing	169.0	20.15
Commerce	47.2	5.63
Agriculture, Forestry & Fishing	35.1	4.18
Services	8.6	1.03

Source: 1970 NIDC Annual Report, National Investment Development Corporation.

### Private Investments Banks

The Private Development Corporation of the Philippines is a development finance institution which is committed to encourage the emergence and growth of Philippine production enterprises through the provision of technical and financial through the purchase of equity investments and expertise.

During the year 1971, the corporation approved 27 project loans equivalent to ₱114.6 million, involving foreign currency loans equivalent to U.S. \$15.6 million and peso currency loans ₱14.5 million. This brings the total assistance to various industries to ₱426.5 million at the end of 1971. The projects which received financial assistance included BOI-approved and registered projects in mining, metal products manufacturing, grain storage and rice milling facilities, and electric power generating and transmission facilities.

The PDCP approved a peso guarantee accommodation of ₱6.0 million during the same year which involved the establishment of the first tube oil refinery in the country. This established the total outstanding project guarantees at ₱34.2 million and reflects the PDCP's ability to assist firms in securing foreign loans without resorting to direct government assistance. It also approved equity investments amounting to ₱5 million in 1971, bringing the outstanding equity investments to ₱18.2 million (consist of preferred and common shares). These investments are made considering the clients financial need as well as its objectives in providing the needed capital for the essential projects. This assistance is a suitable medium for promoting and broadening private ownership of corporations.

The long term debts, debt securities and outstanding equity investments amounted to ₱337.0 million. This represents the Corporation's long term portfolio shown in Table XXV.22, which is distributed among the various industries.

Table ANN. 22 - PDCP'S LONG-TERM PORTFOLIO<sup>1</sup> DISTRIBUTION  
BY INDUSTRY  
(As of December 31, 1971)

Industry	Amount (In thousands pesos) <sup>2</sup>	Per Cent of Total <sup>3</sup>
<b>TOTAL</b>	<b>326,324</b>	<b>100.00</b>
<b>Agriculture and Fishery</b>	<b>7,990</b>	<b>2.36</b>
Agricultural Crops	1,512	0.46
Livestock/Poultry	5,709	1.69
Fishery	699	0.21
<b>Mining and Quarrying</b>	<b>10,714</b>	<b>5.55</b>
Iron Ore mining	4,470	1.33
Copper ore mining	12,454	3.69
Quarrying	1,790	0.53
<b>Manufacturing</b>	<b>154,600</b>	<b>45.91</b>
Food	13,186	3.71
Beverage	457	0.13
Textile	8,755	2.60
Wearing Apparel	1,455	0.43
Wood (Plywood-veneer)	24,099	10.35
Furniture	657	0.19
Paper and paper products	4,462	1.32
Printing and publishing	227	0.08
Rubber products	3,020	0.90
Chemical and chemical products	16,122	4.78
Petroleum products	1,500	0.44
Non-metallic mineral products	31,871	9.46
Basic metals (iron and steel industries)	9,307	2.95
Metal products (Aluminum, pipes & tubes etc.)	17,737	5.26
Non-electric machinery	1,316	0.37
Electric machinery/apparatus	6,738	2.00
Miscellaneous manufacturing	1,757	0.52
<b>Electric light and power</b>	<b>51,091</b>	<b>15.16</b>
<b>Transport and communication</b>	<b>98,172</b>	<b>29.13</b>
Water transport	85,970	25.51
Pipeline operation	7,600	2.26
Communications	4,602	1.37
<b>Others</b>	<b>6,387</b>	<b>1.90</b>

<sup>1</sup> \* Consists of long-term debts, debt securities and equity investments outstanding.

<sup>2</sup> / Details may not add up to totals due to rounding.

Source: 1971 Philippine Development Corporation of the Philippines Annual Report.

The manufacturing sector accounted for 45.91 percent of PDCP's total investments, followed by transport and communication making up 29.13 percent and electric light and power with 15.16 percent. The rest are accounted for by the industry groups, mining and quarrying and agriculture and fishery with 5.5 percent and 2.36 percent, respectively.

Aside from extending financial assistance, the PDCP also plays a significant role in project administration. It affords technical managerial capabilities and competence to stimulate maximum development.

To assist in the development of financial markets in the country and utilize temporarily idle funds awaiting the disbursements on approved local currency loans, it engages in money market operations. Through this operation it is able to mediate between firms which are suffering from a temporary shortage of funds and those enjoying a temporary surplus. In connection with this activity it actively participated in organization of the Money Market Association of the Philippines which aims to standardize money market practices in the country and promote the healthy development of the market.

### Bancom Development Corporation

Bancom Development Corporation is a private investment bank which has continually worked to attain efficiency in the performance of its principal function of acting as an intermediary between the sources and users of funds. It extends assistance to projects which are viewed to be primary contributors in the acceleration of the country's economic development. Most of these projects are registered with the Board of Investments and are involved in the production of essential products chief of which are petroleum, mining, wood, pharmaceutical, paper, sugar and coconut.

In 1971, it redirected its resources to the support of export-oriented firms. It became particularly involved in the Surigao nickel project of the Marinduque Mining and Industrial Corporation, acting as the latter's financial consultant and investment banker. Being the biggest single project to be undertaken in the Philippines, this project is expected to generate substantial amount of foreign exchange earnings, income to the government in the form of taxes and fees, employment for some 2,000 Filipinos and the development of Nonoc Island, the site of the mine and refinery.

During the same year, Bancom launched the Corporate Farming Association (a management company and an agricultural equipment manufacturers-distributor partnership) which will aid in the development and utilization of idle agricultural estates. It also financed the development, expansion and modernization of provincial electric utility companies through the sponsorship of the Utilities Development Finance Corporation. It financed housing projects through the Land and Housing Development Corporation it organized in 1968. To date it has helped in the construction of approximately 1600 housing units.

Bancom entered into a merchant banking tie-up with the Rizal Commercial Banking Corporation. This venture served to complement the skills and resources of both parties to meet the financing needs of the complex market. It is also expected to broaden and deepen Bancom's role in the local money market. Like the PDCP it also engages in money market operations and it has actively engaged in the organization of the Money Market Association of the Philippines.

Bancom's expansion may be gauged by the growth of its clientele, increase in its investments, and the establishment of local branch offices. It intensified its involvement in Southeast Asian finance and aimed at establishing an investment bank for Southeast Asia which would stimulate and foster economic development, cooperation and integration within the region through Overseas Bancom. Its Multinational Banking Department has been conducting basic researches in the countries within the region to determine feasibility of venturing into Bancom-type operations.

The loans granted by Bancom to finance the need for capital investments in various sectors of the populace was observed to be at its peak in 1970, with the value of the loans granted reaching the P297.8 million mark. This represents a substantial increase of 320.6 percent over the 1966 total. However in 1971 this value declined by 29.68 percent, as shown below.

**Table XXV.23. — LOANS GRANTED BY BANCOM DEVELOPMENT CORPORATION,  
1966-1971**

Year	Value (In million pesos)	Percent Increase/Decrease
1966	70.8	—
1967	140.5	98.45
1968	259.7	84.84
1969	297.0	14.36
1970	297.8	0.27
1971	209.4	(29.68)

Source: 1971 Bancom Development Corporation Annual Report.

### **Insurance Companies as a Source of Credit or Investment Funds**

An insurance is a contract one undertakes for a consideration to indemnify another against loss, damage or liability arising from an unknown or contingent event. It provides payment only when a loss is incurred and this payment is limited to the extent of the loss.

Insurance was first introduced in the Philippines in 1829, when Lloyd's of London appointed Stracham, Murray and Co., Inc., as its representative here. In 1839, the Union Insurance Society of Canton appointed Russel and Sturges as its agents in Manila. The business transactions were then limited only to non-life insurance until 1893 when the Sun Life Assurance of Canada entered the local insurance market. In June 1906, the first domestic non-life insurance company, the Yek Tong Lin Fire and Marine Insurance Company was organized. Four years later, the first domestic life insurance company, the Insular Life Assurance Company was inaugurated.

The number of insurance companies increased through the years. In June 1969 there were 169 authorized insurance companies of which 129 are domestic and 40 foreign. These insurance companies have 22,936 authorized insurance agents to help carry out business transactions which are defined and regulated by the Insurance Act No. 2427 as amended.

**Table XXV.24. — AUTHORIZED INSURANCE COMPANIES BY OWNERSHIP AND TYPE,  
June 30, 1969**

Ownership Total	Total	Life	Non-Life
	169	23	146
Domestic	129	20	109
Foreign	40	3	37
American	16	1	15
Other than American	24	2	22

Source: 1969 Insurance Commission Annual Report, Insurance Commission.

Since 1963, the value of risks written and renewed generally followed an upward trend. From ₱14.25 billion in 1963 a remarkable increase of 83.09 percent was realized during the six-year period from the total reaching ₱26.09 billion. With the increase in the value of the net risks the premiums paid likewise increased although at a slower pace. From ₱122.8 million in 1963, the value of the premiums paid went to as high as ₱194.32 million in 1968 thus recording an increase of 58.20 percent.

**Table XXV.25. — VOLUME OF NON-LIFE INSURANCE BUSINESS, 1963-1968  
(In million pesos)**

Year	Net Risks Written and Renewed	Percent Increase/ Decrease	Net Premiums Paid	Percent Increase
1963	14,250.43	—	122.83	—
1964	16,190.01	13.61	136.77	11.35
1965	15,584.79	(3.74)	141.70	3.60
1966	19,861.82	27.44	151.83	7.15
1967	22,324.16	12.40	169.30	11.51
1968	26,090.68	16.87	194.32	14.58

Source: 1969 Insurance Commission Annual Report, Insurance Commission.

At the end of 1968, non-life domestic insurance companies have resources aggregating to ₱433.42 million while life domestic companies have about ₱832.54 million.

For the same year, the non-life insurance net risks (written and renewed) was valued at ₱26.09 million of which 24.69 percent are accounted for by fire, 22.60 percent by marine, and 12.91 percent by motor vehicles. This total represents an increase of 16.27 percent over the 1967 figures. All risks written and renewed increased between the two-year period except those classified under common carriers.

**Table XXV.26. — NON-LIFE INSURANCE NET RISKS WRITTEN AND RENEWED,  
1967-1968**  
(In million pesos)

Risks	1968	1967	Percent Increase/Decrease
<b>Total</b>	<b>P 26,090.67</b>	<b>P 22,324.15</b>	<b>16.87</b>
Fire	6,441.16	5,645.22	14.10
Marine	5,896.38	4,390.39	34.30
Auto and Other Motor Vehicles	3,367.17	2,816.25	19.56
Common carriers	948.05	2,958.04	(67.95)
Fidelity & surety bond	1,766.25	1,618.31	9.14
Workmen's compensation	858.91	721.68	19.02
Health & accident	5,267.65	2,885.89	82.53
Earthquake/fire shock	293.55	271.98	7.93
Typhoon/flood tidal wave	209.77	187.68	11.77
Burglary/larceny/theft	48.15	32.43	48.47
Plate glass	3.41	0.12	2,741.67
Riot & curret commotion	93.89	52.14	80.07
Lightning & explosion	4.06	3.84	5.73
Miscellaneous	892.27	740.18	20.55

Source: 1969 Insurance Commission Annual Report, Insurance Commission

On the other hand, life insurance policies were valued at P6,684.64 million in 1968. This represents an increase of 20.29 percent over the value recorded in 1967. About P204.00 million premiums and considerations were paid for these policies. This type of insurance, likewise exhibited an ever increasing trend for the period under review as may be observed from the following table:

**Table XXV.27. — LIFE INSURANCE POLICIES AND PREMIUMS PAID, 1963-1968**  
(In million pesos)

Year	Value of Policies	Percent Increase	Premiums consideration Paid	Percent Decrease
1963	2,956.29	—	112.33	—
1964	3,377.88	14.26	127.23	13.26
1965	3,961.45	17.28	140.73	10.61
1966	4,630.79	16.90	158.08	12.33
1967	5,556.90	20.00	185.71	17.48
1968	6,684.64	20.29	204.00	9.85

Source: 1969 Insurance Commission Annual Report, Insurance Commission.

Insurance companies investments are in the form of stocks and bonds, loans, real estate, discounted bills and receivables and interest bearing deposits. In 1968, investments in stocks and bonds amounted to P259.41 million while policy loans amounted to P228.66 million. Collateral and mortgage loans aggregate into a substantial amount of P176.06 million followed closely by real estate investments of P175.10 million. Discounted bills and receivables and interest bearing deposits contribute the least share of P43.97 million and P36.333 million, respectively.

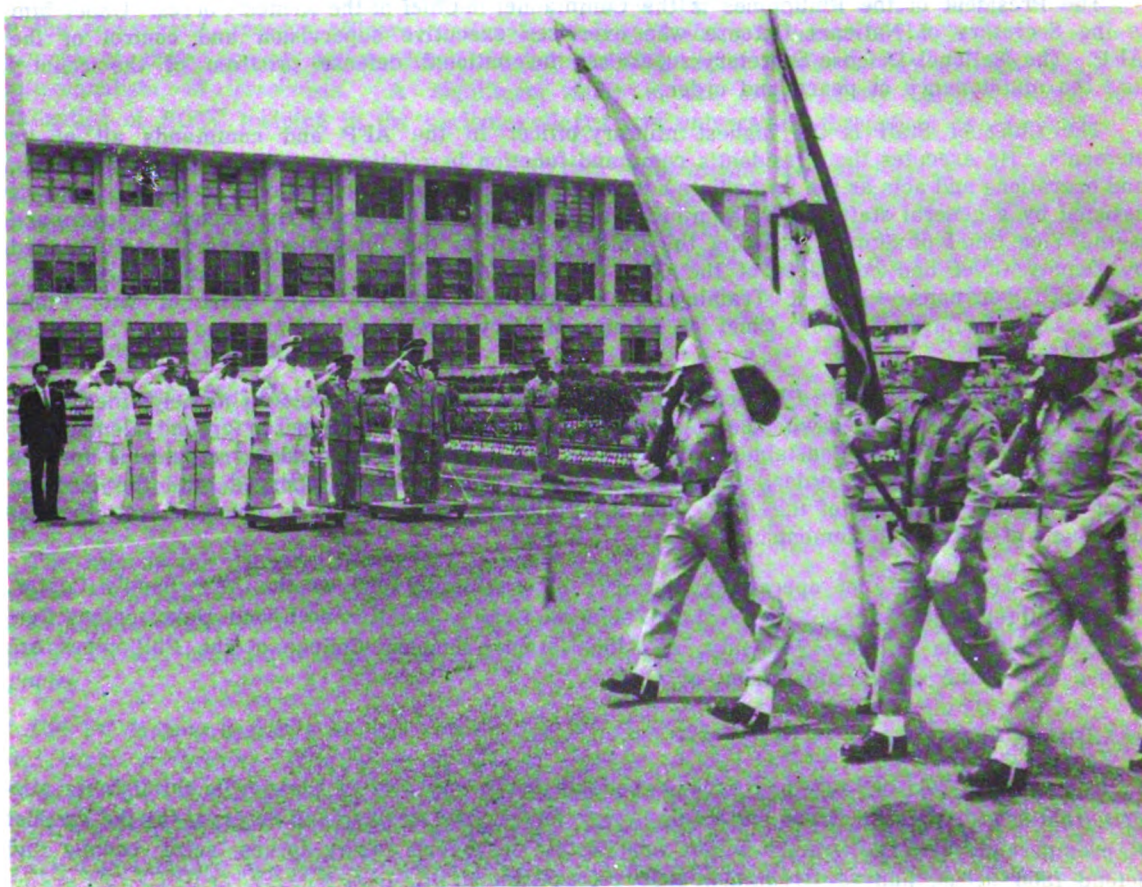
## CHAPTER XXVI — DEFENSE

### THE DEPARTMENT OF NATIONAL DEFENSE

Since its organization thirty-one (31) years ago the Department of National Defense has not only fulfilled its primary and continuing mission of maintaining peace and order and safeguarding national security but has also effectively assisted in furthering the socio-economic program of the government.

The Department was created by Commonwealth Act No. 430, and organized on November 1, 1939, by virtue of Executive Order No. 230. Section 2 of the Act provides that "The Department of National Defense shall be charged with the duty of supervising the national defense program of the country, and for this, it shall have executive supervision over those bureaus, offices, and services which the President may determine to be properly under the jurisdiction of the said Department".

From its simple beginnings which consisted only of very few offices, such as the office of the Secretary, the Secretary's staff, the administrative officer, the administrative division, the radio control division, and a personnel staff of less than 40, it has grown to its present responsibility of providing assistance and support to its three major agencies: the Armed Forces of the Philippines, the Bureau of Coast and Geodetic Survey, and the Veterans Memorial Hospital.



AFP contingent in review with the GHQ, AFP shown in the background.



The Armed Forces of the Philippines, which is the biggest operating arm of the Department, is made up of four major services, namely: the Philippine Army, the Philippine Constabulary, the Philippine Air Force, and the Philippine Navy.

The Bureau of Coast and Geodetic Survey has for its main function the survey of the country's territorial waters, the production of nautical charts and topographic maps, the observation, analysis, and prediction of tides, and the publication of tide and current tables.

The Veterans Memorial Hospital, which was established in accordance with the provisions of US Public Law 865 to furnish satisfactory and adequate medical care and treatment to Filipino veterans, is directly administered by the Department on the basis of an agreement entered by the governments of the Philippines and the United States.

Originally, the VMH was intended solely for Commonwealth Army Veterans (CAVs), the collective term for Filipino USAFFE disabilities. However, in 1958 the hospitalization program was expanded to include U.S. Armed Forces veterans (including Philippine Scouts) residing in the Philippines. Further expansion was authorized by US law in 1966 to include CAVs without service-concerned disabilities, numbering about 270,000.

Basically, the VMH is a contract hospital of the US Veterans Administration in the Philippines. It is now administered for Commonwealth army veterans, former US Armed Forces members (USVs), and the so-called "New Philippine Scouts", who were recruited after World War II but before July 4, 1946, for occupation duty in Okinawa.

### **Organization of the Present Armed Forces of the Philippines**

The President of the Philippines is the Commander-in-Chief of the Armed Forces. Under him is the Secretary of National Defense who exercises executive supervision and control of the AFP. The National Defense Secretary supervises the national defense program of the country and the maintenance of peace and order.

The Chief of Staff is the highest military officer in the AFP and commands all of its elements. He executes the President's command function in relation to military strategy, tactics, and operations and acts as the immediate adviser to the Secretary of National Defense. He is assisted by a general staff and by administrative and technical staffs. The second in command is the Vice Chief of Staff. Assisting the Chief of Staff is the integrated general staff headed by Deputy Chief and composed of the Chief of Personnel (J-1); Chief of Intelligence (J-2); Chief of Operations, Plans & Training (J-3); Chief of Logistics (J-4); Chief of War Plans (J-5); AFP comptroller (J-6); Chief of Foreign Military Assistance (J-7); and the Secretary of General Staff.

The Armed Forces of the Philippines has four main operating agencies — namely, the Philippine Army which is charged with the development of the regular and reserve ground elements of the AFP; the Philippine Constabulary which is national police force and is responsible for the maintenance of law and order; the Philippine Air Force which is charged with the development of the air elements of the AFP; and the Philippine Navy which is charged with the development of the naval elements.

To ensure economy of operations, the AFP support units such as the AFP Supply Center, the AFP Intelligence Service, the V. Luna Medical Center, the Research and Development Center, the Philippine Military Academy, and the National Defense College of the Philippines are formed under the direct supervision of GHQ.

### **The Philippine Army**

The army's role is and has always been to serve and protect the people through its mission; that is, to organize, train and equip Army forces, both regular and reserve, for the conduct of prompt and sustained ground action, specifically to defeat enemy forces, seize, occupy and defend land areas, and to strengthen bases of operations.

The approach is a basic restructuring and reorganization of the Philippine Army. Within the context of this new structure, the Army is developing a compact but more flexible and potent regular force that fulfills the following requirements basic to its mission; firstly, an army that can be readily mobilized and shifted to wartime footing in order to protect and defend the country against imminent danger and threat to its national security; and secondly, an army that can mobilize its manpower resources and skill to help the people attain progress and prosperity in time of peace in line with the government's socio-economic program.

The major units of the Philippine Army have been streamlined to meet more decisively the maximum requirements of military preparedness and civic assistance. The First Infantry "TA-BAK" Division has completed reorganization into a compact, hard-hitting, highly-mobile force capable of employment, anytime, anywhere. The Second Infantry Brigade (Separate) has completed movement to its new site in Camp Capinpin, Rizal province. The Third Infantry Brigade is in the Visayas to expand the Army Force in case of emergency, while the Fourth Infantry Division is in Mindanao as the main defensive force in the southern backdoor. The Army Engineer Brigade, in coordination with the other government agencies, continues to assist in the socio-economic development of the nation through the construction or infrastructure projects. The Army Civil Force is engaged in the task of bringing back the rural areas of Central Luzon into the mainstream of progress and development. The ACF is utilizing the vast experience and training of PHILCAG personnel in civic action.

In line with its reserve build-up program, the Army has intensified the training of 20-year-old youths as provided for under the Training Law in the form of a Citizen Army Program. On the other hand, reserve officers continually undergo training in camps of the Philippine Army, as part of their annual active duty training (AADT), which aims to upgrade the military professionalism of reservists. A significant stride in the citizen army buildup is the revitalization of ROTC training in the various colleges and universities throughout the country.

The Philippine Army's Defense Home Program implements the build-up of reserve force and also assists in the socio-economic development of the nation. The Home Defense Center established in each province oversees organization, administration, and training of reservists in accordance with the citizen-army concept, and provides the focal point in the Army's assistance in socio-economic development activities.

### **The Philippine Constabulary**

Commonwealth Act No. 175 created an insular police force which was later reorganized as the Philippine Constabulary Commission on August 8, 1901, with Capt. Henry T. Allen of the US 6th Cavalry (who later became brigadier general) as its first chief. On March 30, 1950, it was made one of the major commands of the country's armed forces, pursuant to Executive Order No. 308.

The role of the constabulary in the present scheme of things is not different from that of more than half a century ago. It continues to conduct police work, yet embarks on civic action duties. While today it discharges its primary duty of preserving the peace and maintaining law and order, its tasks have branched out to provide support to other government agencies.

The PC is now assisting in the enforcement of other laws such as the land transportation code, laws on forestry, internal revenue and customs, price control, rice enrichment, anti-dummy, retail trade, parks and wildlife, immigration, quarantine, public service, amusements, election, scrap metal, iron and gold bars, ban on antiques and coin hoarding.

The Constabulary has four PC zones. There is a provincial PC headquarters in each province and there are 142 PC Companies distributed throughout the country.



## **PC Metropolitan Command**

The PC Metropolitan Command, a major subordinate unit of the Philippine Constabulary, was a creation of necessity when, in 1967, the local police agencies in the Greater Manila area urgently needed help to contain the rising tide of criminality. When the incidence of criminality required more vigorous law enforcement action, which are over and above the capabilities of the local police forces, the President directed the Philippine Constabulary on July 14, 1967 to organize a special striking force to be known as the PC Metropolitan command.

It started with a modest force of about 300 officers and men. Metrocom officers and men, most of whom have served with the PHILCAG in South Vietnam, undertake medical and dental civic action activities. It was also given the additional duty of being the AFP's "Action command" on security within the Metropolitan area, providing among others, security for the First Family, in coordination with the Presidential Security Unit, and for the members of the diplomatic community.

## **The Philippine Air Force**

The Philippine Air Force was initially organized as the Philippine Constabulary Air Corps and later redesignated as Philippine Army Air Corps. Today, as the country's air arm, it has gradually risen to a status of combat-readiness.

After the war the Philippine Air Force went through a series of reorganizations to catch up with the fast-changing trends of military aviation. It acquired cargo planes of the C-4 type and F-51 "Mustang" fighters. The transition of the Philippine Air Force from propeller-driven to jet aircraft came about in August 1955 when some T-33 jet trainers (T-Birds) were flown in from Japan by Filipino pilots; these were the first jet aircraft acquired by the PAF.

With the acquisition of F86F (Sabrejet) fighters from the United States and the training of some fighter pilots and maintenance personnel abroad, the Command was ripe for the much-awaited test of operational readiness. It was pronounced combat-ready after a joint aerial exercises with the United States Air Force.

A few years later, F86D all-weather jet fighters interceptors were added to the Air Force armory. This time, too, the 9th Tactical Fighter Squadron, known as the "LIMBAS" Squadron was activated by the PAF for duty with the United Nations in the Congo.

In 1966, PAF firepower got another boost with the turnover of needle-nosed F5A supersonic jet fighters. Along with these were some F-5B's the 2-seat trainer version of the F-5A's.

The Philippine Air Force keeps on training in order to maintain the status of operational readiness. It is also undertaking several socio-economic projects such as photogrammetry, rain stimulations and typhoon damage control, plant pest control, reforestation, aerial fish planting, airlift for supplies and medicine, including agriculture equipment, air evacuations of patients, and home defense activities performed through defense centers.

The major units performing air force functions are the First Air Division, the newly created Airlift Division 580th Aircraft Control and Warning Wing, 100th Training Wing, 20th Composite Wing, PAF Depot, 560th Composite Tactical Wing, and 520th Air Base Wing. These units are stationed strategically throughout the country.

## **The Philippine Navy**

The Philippine Navy, the youngest of the four major service of the Armed Forces of the Philippines, is charged with the responsibility of providing naval defense for the country. The geographic background of this mission is an insular country or approximately 7,100 islands, territorial waters of 705,000 square miles, and an encompassing shoreline of about 21,592 statute miles.

With this unique territorial composition, and in such a strategic location, it is imperative for the Philippines to rely to a great extent on the Navy for its security from external aggression, as well as for the safety and neutrality of its shipping lanes, the country's main economic arteries.

The primary mission of the Philippine Navy is "to provide naval defense for the Philippines to assist ground and air forces and other government agencies". With the creation of the Philippine Coast Guard, the additional mission is "to enforce maritime laws and regulations and to develop, establish, operate and maintain aids to maritime navigation and rescue facilities for the preservation of life and property at sea"

To carry out these missions, the task are:

1. Organize, train, equip, operate and maintain naval aircraft, including naval reserve units, necessary to provide the waterborne support and assistance required by the Armed Forces of the Philippines in the accomplishment of its missions;
2. Enforce laws or assist proper government agencies in the enforcement of laws and regulations pertaining to maritime matters, navigation, illegal entry, smuggling, quarantine, fishing and neutrality in the territorial and contiguous water of the Philippines;
3. Develop, in coordination with the other major services and area commands, the doctrines for amphibious operations;
4. Be responsible for the naval phases of reconnaissance, anti-submarine warfare and the protection of shipping; and
5. Perform such other functions as the President may direct.

To accomplish the multifarious and varied aspects of its missions, the Philippine Navy is organized into three major units: the Naval Operating Forces, which is responsible for the sea, land and air striking forces of the Navy; the Naval Shore Establishment, which takes care of the service and support needs of the fleet; and the Philippine Coast Guard, activated in August 1967, which has cognizance over maritime affairs. In addition to these, the Navy has six separate special units: Manila Naval Station, Naval Construction Battalion, Operating Forces Training Group, Naval Intelligence Operations Unit, the Naval Reserve Affairs Office, and the Office of Home Defense Affairs.

### **The Philippine Military Academy**

The Philippine Military Academy is the premier military institution in the country today. It is the principal source of officers for the regular components of the Armed Forces of the Philippines. It was founded in 1905 and since then has turned out more than 5,000 graduates, many of whom have distinguished themselves in various fields of endeavor, both military and civilian. The school is located in scenic and sprawling 373-hectare Fort Del Pilar at Baguio City.

Its mission is "To instruct, train and develop the cadets so that each graduate shall possess the character, the broad and basic military skills, and the education essential to a successful pursuit of a progressive military career". It is a non-sectarian school.

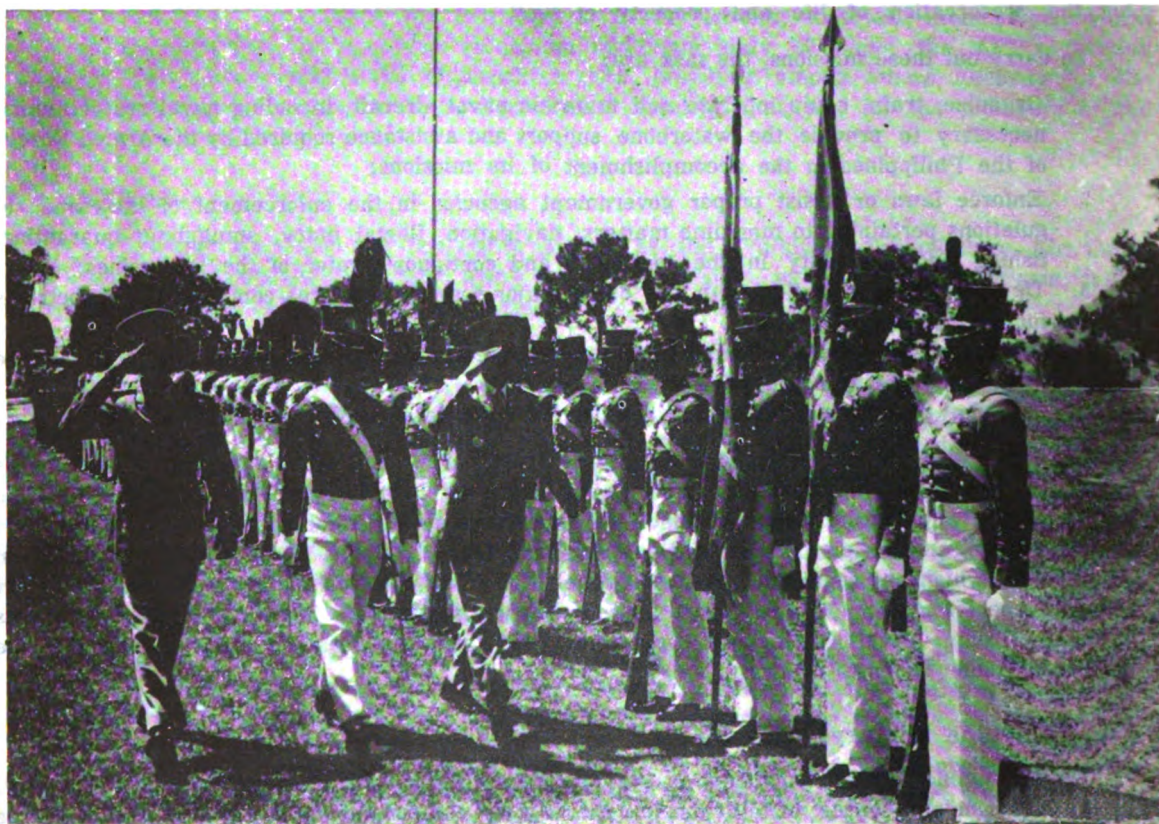
The student body of the Philippine Military Academy is called the Cadet Corps Armed Forces of the Philippines. It has a strength of about 350 cadets who are organized into a regiment of two (2) battalions, each battalion having two (2) companies.

There are 4 classes of cadets, the first year classes designated as 4th classmen, the second year classes designated as 3rd classmen, the third year classes as 2nd classmen and the fourth year classes as the first classmen.

A cadet receives a yearly salary of P3,480 (rate of increase in base pay was effective July 1971). This covers expenses for books, uniforms, insurance and other personal necessities. A ca-

det does not hold cash in hand. All his pay and allowances are held by the treasurer who keeps track of the accounts of all cadets.

A cadet is a member of the Armed Forces and is subject to military rules and regulations. Upon entry, he signs a contract to finish his course in the Academy unless sooner separated and to serve for eight (8) years as a commissioned officer after graduation. In some instances, a cadet may resign due to loss of interest in the military service but generally he is required to reimburse pay and allowance he has received.



*PMA cadets in review at PMA Baguio training grounds.*

### **The National Defense College of the Philippines**

The National Defense College of the Philippines is the only institution in the country that prepares potential leaders from the military and civilian sectors for national defense. Although a young institution, it has already earned a name in the field of education. The curriculum is richly endowed with subjects that are common to war and industrial colleges, carefully chosen and blended to suit the needs of the country. The methodology is comparable to those in use in graduate schools. The College does not maintain a resident professional staff, but it taps the best resources in the country. It invites prestigious lecturers, who are high officials of the AFP, renowned educators from the University of the Philippines and other ranking universities and colleges, eminent members of foreign embassies, and top ranking leaders of foreign military organizations.

The selected AFP officers and civilian executives are duly nominated by the heads of the different departments, bureaus and offices of the Republic of the Philippines. The NDCP was created by Executive Order No. 44 promulgated on August 12, 1963. It was activated and organized as a unit of the AFP on September 9, 1963 and its general supervision and control rests with the Secretary of National Defense. The College is located at Fort Bonifacio, Rizal. It conducts courses of study in the political and economic aspects of national security, giving due consideration to the interrelated social, psychological and military factors affecting national security in order to prepare potential defense leaders to assume and discharge the responsibilities of high command, staff and policy formulating functions with the National government and the national and international security structure.

The resident course of instruction is approximately ten months duration with classes commencing on 1 August annually. The total enrollment and allocation of student quotas to major services and to government agencies, for the resident course is determined annually by the Chief of Staff, AFP. The College is designed for the total enrollment of forty (40) students. The military quotas for seminar courses will be determined by the President of the College.

### **The Armed Forces of the Philippine Command and General Staff College**

The AFP Command and General Staff College is the highest military institution of the Armed Forces for senior officers. It was constituted and activated as a unit of the Armed Forces of the Philippines on 2 January 1969 after the merging of the Major Services Command and the General Staff Colleges at Fort Bonifacio, Rizal. Its main objective is to prepare officers for command, staff, leadership and managerial positions normal to field grades. The College can conduct one regular course with ten (10) months duration and two associate courses with six months duration each.

The College accommodates forty-five (45) students for each course with five (5) spaces for regular course reserved for South Korea, Thailand, Nationalist China, Indonesia, and South Vietnam in line with the Secretary of National Defense Policy.

The College, therefore prepares selected officers who meet the requirements of highest command and staff positions and at the same time provides an educational research and doctrinal center for the Armed Forces of the Philippines.

### **The AFP Supply Center**

The AFP Supply Center, activated on 15 March 1962, is the nucleus of the defunct AFP General Depot. Its mission is to support AFP Units with common items of supplies and services, and depot maintenance and fabrication. The functions of the Center are to procure, store, control and distribute common items of supply, perform reconditioning and renovation of selected technical service equipment, provide transportation services for movement of troops and supplies and provide property disposal services for common items.

The AFPSC depot transportation capability is primarily land transportation. Aside from purely military missions, transportation service for civic activities such as rice distribution, distribution of relief goods, relocation of squatters, movements of disaster victims and even the collection of garbage have also been performed.

Fabrication is a second major activity of the AFPSC. From February 1967 to 1969, the AFPSC has produced a total of 7,402 schoolhouse units and 113 troop hutments. It has developed the capability of fabricating 1,000 units a month for type of housing.

## **AFP Research and Development Center**

The AFPRDC mission is "to conduct scientific investigation and studies of value to the National Defense Development and, in the light of these investigations and studies, to devise ways and means of utilizing local resources and materials for the prosecution of national defense plans and operations, with priority for projects that will satisfy the basic needs and those that will increase the combat efficiency of the Filipino soldier.

Several functions of the AFPRDC are:

1. Preparation of research and development policies and plans for the Armed Forces of the Philippines.
2. Undertaking scientific investigations and studies on local resources and materials of value to the national defense.
3. Development of new or improved weapons, military equipment and supplies, preferably from local raw materials.
4. Evaluation of weapons and other military materials developed by other nations and the development of superior weapons and/or counter-measure devices.
5. Assignment of development responsibilities to the various major services or separate units where facilities permit.
6. Compilation of statistics and data on the scientific manpower, industrial research laboratories, educational research laboratories, government research laboratories, and other research facilities within the country to include their capabilities, projects developed or being developed, and plans.
7. Mobilization, in time of emergency, of the national scientific effort for carrying on the national defense research and development program.
8. Representation of the AFP in all matters relative to research and development and the maintenance of close contact for this purpose with government and/or private research agencies and/or with scientific associations.
9. Preparation of recommendation as to the exploitation of natural resources, the future military application of which can be foreseen.
10. Tests and analyses of items to be produced by all the commands and units under the DND and other related activities.

The AFPRDC is at present undertaking projects of value for national security, internal defense and economic development. Some of the projects of value for National Security are small arm weapons, combat ration, survival ration, propellants, explosives, reloading of ammunitions to include blank ammunitions and rockets, while projects for internal defense are on anti-crime devices, anti-riot devices, concealed weapons detector, rural health kit, well driller, and fogging machine. The third set of projects for economic development are on fuel economizer, anti-air pollution device, turbojet engine, solar power and wind power.

## **Rates of Pay and Allowances Issuable to the Armed Forces of the Philippines**

The entire pay structure for comparable ranks in the four major services is on a uniform basis. Tables XXVI.1 and XXVI.2 contain the monthly rates of pay for officers and men of the Armed Forces of the Philippines.

The following are the most common entitlements, aside from pay, for members of the regular Forces. Other entitlements related to special duties and to the Reserve Forces are not shown.

**Flying Pay** is the flying allowance of 50 per cent of basic pay paid to an officer or man undergoing flying training to become a pilot, navigator or other member of aircrew if he is not already receiving the special rate of pay applicable to pilots or navigators.



**Parachutist Pay** is paid to an officer or man undergoing parachutist training or filling a designated position requiring parachute jumping, that is 50 per cent of his basic pay, while **hazardous pay** is given to an officer or man performing hazardous duty. This is also 50 per cent of basic pay.

Officers and men posted for duty to a country outside the Philippines are entitled to an additional 50 per cent of basic pay known as **Overseas Pay** to compensate for additional living expenses or hardship incurred.

An officer or man stationed in a ship receives 10 per cent of his basic pay monthly, known as the **sea duty pay**, while **combat pay** is for Armed Forces personnel engaged in combat and is paid an additional ₱10.00/month. **Incentive pay** is given to members of the Medical Corps, Dental, and Nurses Corps, in the amount of ₱100.00/month.

The **air mechanic allowances** are paid to the Armed Forces personnel who are not receiving other pays where 1st class air mechanics receive ₱75.00; 2nd class ₱50.00 and 3rd class ₱25.00.

**Subsistence allowance** is given to an officer of the Navy who received a ₱2.00 per day subsistence allowance while at sea duty; ₱1.00/day for Petty Officer and ₱0.50/day for non-rented enlisted personnel.

**Specialist pay** is given according to class ranging from ₱10—9th class; ₱15—8th class; ₱20—7th class; ₱35—5th class; ₱45—4th class; ₱55—3rd class; ₱65—2nd class to ₱75—1st class; distributed among enlisted rank from private to master sergeant.

**Table XXVI.1 — MONTHLY RATES OF PAY FOR OFFICERS OF THE ARMED FORCES OF THE PHILIPPINES**

R A N K	Monthly Base Pay	Long Pay (RA 1134 as amended by RA 3725)					Quarters Allowance (monthly)
	(EX O 204 RA 3592)	1st L/P	2nd L/P	3rd L/P	4th L/P	5th L/P	
1. General (Gofs)	1,800.00	180.00	378.00	393.80	835.38	900.00	360.00
2. Major General	1,300.00	130.00	273.00	430.00	603.33	650.00	300.00
3. Brig. Gen. (Comm)	1,100.00	110.00	231.00	364.10	510.51	550.00	280.00
4. Colonel (Capt. Pn)	900.00	90.00	189.00	297.90	417.69	450.00	240.00
5. Lt. Colonel (Comdr)	700.00	70.00	147.00	231.00	324.87	350.00	210.00
6. Major (Lt. Comdr)	550.00	55.00	115.50	182.05	255.25	275.00	180.00
7. Capt. (Lt. SG)	450.00	45.00	94.50	148.95	208.84	225.00	160.00
8. 1st Lt. (Lt. JTG)	370.00	37.00	77.70	122.47	171.71	185.00	140.00
9. 2nd Lt. (Ensign)	320.00	32.00	67.20	105.92	148.51	160.00	130.00

Source: Statistical Division, GHQ — AFP

**Table XXVI.2 — MONTHLY RATES OF PAY FOR ENLISTED MEN OF THE ARMED FORCES OF THE PHILIPPINES**

R A N K	Monthly Base Pay	Long Pay			RA 6104		Allowance Dependents	
		1st L/P	2nd L/P	3rd L/P	4th L/P	5th L/P	5 Deps	4 Deps
1. MSG/CPO	260.00	260.00	54.60	86.06	120.66	130.00	42.00	36.00
2. TSG/PO1	240.00	24.00	50.40	79.44	111.38	120.00	42.00	36.00
3. SSG/PO2	220.00	22.00	46.20	72.82	102.10	110.00	42.00	36.00
4. SG/PO3	205.00	20.50	43.05	67.85	95.13	102.50	34.00	28.00
5. CPL/Sn1	195.00	19.50	40.95	64.54	90.49	97.50	28.00	26.00
6. Pfc/Sn2	185.00	18.50	38.85	61.23	85.85	92.50	26.00	20.00

Source: Statistical Division, GHQ — AFP

### Armed Forces of the Philippines Training

Recruit basic trades training, as well as most of advanced trades training in support of the Armed Forces of the Philippines, takes place at schools under the supervision of each of the major services. The recruit training phase lasts six months, and after passing a series of tests, the recruits are inducted into the regular force of the AFP. The six-month basic training is applicable to all trainees in the four major services.

The Philippine Army School Center in Fort Bonifacio, Rizal, conducts training for infantry of the Regular and Reserve Forces from basic trade courses to advance to officer-level courses.

In Camp Lumil, Cavite, the Constabulary Training Center conducts further training for constabulary forces on subjects about police work such as investigation, criminal law, criminal investigation, and other related police subjects.

Flying training is generally based at the Philippine Air Force Flying School at Fernando Air Base in Lipa City. Graduate pilots and radio navigators are granted "wing standard" and go on further training in support of tactical air, air defense, and transport operations.

The Naval Training Center in Cavite provides basic maritime trades training as well as training facilities to recruit seamen for the operational warship.

### The Philippine Forces Communication

The unit of the Armed Forces of the Philippines which is charged with providing services and support pertaining to communications is called COMMUNICATIONS-ELECTRONICS GROUP. This unit provides communication-electronics support for the General Headquarters, AFP, down to major services and separate AFP units. It plans, engineers, supervises and administers all fixed communications-electronics projects of the AFP and undertakes major communications-electronics projects beyond the capabilities of major commands and services. It provides still and motion pictures services for GHQ and separate units, enforces communications security measures in the AFP and operates AFP-wide signal intelligence agencies. The Unit also undertakes all other intelligence missions related to communications-electronics and supports other intelligence agencies and should provide electronic-warfare support for the AFP.

## **Reserves**

The AFP Reserves are those officers and enlisted personnel on inactive status who are listed in AFP rosters as members of AFP reserve units or in the AFP reserve pools. Each reservist comes from at least one of the following sources: ROTC graduates, honorably discharged enlisted personnel from the AFP or from the armed forces of the United States, former regular officers who resigned their regular commissions and were given reserve commissions, and appointed reserve officers.

The AFP Reserves are distributed among the four major services of the AFP — the Philippine Army, the Philippine Constabulary, the Philippine Air Force and the Philippine Navy.

## **Administration of Military Bases in the Philippines**

The Philippine-United States Mutual Defense Board was established on May 15, 1958, under the Philippine-United States Council of Ministers as provided by the Mutual Defense Treaty. The Board was established in consonance with the mutual desire of the Government of the Republic of the Philippines and the Government of the United States to implement more effectively certain provisions of existing defense agreements between the two countries. The purpose of the Board is to provide continuing intergovernmental machinery for direct liaison and consultation between appropriate Philippine and United States authorities on military matters of mutual concern so as to develop and improve, through continuing military cooperation, the common mutual defense of the two sovereign countries.

In 1962, the Board established and appointed a Philippine Military Liaison Officer for each of the U.S. Military and Naval Bases in the Philippines for mutual concern. A Philippine Military Liaison Officer was assigned to the Staff of the Base Commander of the United States Naval Base, Subic Bay and Clark Air Base and such other major military bases used by the United States as may be mutually agreed by the Philippine-United States Mutual Defense Board. These officers shall be designated by the Chief of Staff, Armed Forces of the Philippines, and assigned by the Philippine-United States Mutual Defense Board to the United States Base Commander concerned. As Philippine Military Liaison Officers, they will continue to be under the Administration of the Philippine Co-Chairman of the Board.

The duties of the Philippine Military Liaison Officers assigned to the Staff of the United States Base Commander include: the establishment of a military liaison office for the performance of normal liaison with the Base Commander; cooperation with the Base Commander by advise, suggestions and/or other appropriate action to assure observance of Philippine Law and Regulations within the base; to advise the Base Commander concerning problems involving Philippine nationals and residents on the base, and the day-to-day relationships between the Base Commander and such nationals and residents; act as the point of contact between the officials of the national, provincial, and municipal agencies and the base authorities to facilitate the performance of specific tasks of such agencies in the implementation of Philippine laws and regulations within the base; assist the Base Commander, as appropriate, in implementing actions of the Philippine-United States Mutual Defense Board; perform such other duties as may be assigned to him by the Philippine-United States Mutual Defense Board, and promote close cooperation, understanding, and harmonious relationships among all concerned.

The Philippine Military Liaison Officers will submit their reports as may be required by the Philippine-United States Mutual Defense Board through the Joint Secretariat of the Board, furnishing copies thereof to the Base Commanders.



### **South-East Asia Treaty Organization**

The South-East Asia Treaty Organization (SEATO) was established to implement the aims and objectives set out in the Manila Pact, a Treaty signed by eight nations at Manila, on September 8, 1954.

The Pact, officially known as the South-East Asia Collective Defense Treaty, calls for collective action to resist armed attacks and to counter subversion directed from without against the territorial integrity and political stability of any of the eight nations.

Its main purpose is to give the peoples of the SEATO countries the security they need to live in peace and freedom, which is necessary for economic and social development. The Pact is directed against aggression and subversion.

It was signed by Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the United States. Together these countries cover one-eighth of the world's surface and embrace one-seventh of its population.

At the time of the signing of the Treaty, these nations also subscribed to the Pacific Charter, a statement of ideals and intentions proposed by the late President Ramon Magsaysay of the Philippines.

The principles and objectives of the Manila Pact are the same as those of the United Nations Charter. The Pact complements other security treaties made in the area. The SEATO nations have renounced force as an instrument of policy and will only use it to defend themselves against

SEATO is a flexible alliance which has responded to the changing needs of the situation in South-East Asia, and has provided full scope for national freedom of action.

One of the most important developments in its history was a declaration by the United States Secretary of State in a joint statement with the Minister of Foreign Affairs of Thailand on March 6, 1962, which reaffirmed that the Treaty obligation of the United States "does not depend upon the prior agreement of all other parties to the Treaty, since this treaty obligation is individual as well as collective". A majority of members have agreed to this view.

There is no provision in the Pact for review or renegotiation, nor does it have a fixed life-span. So long as the threat of Communist aggression and subversion remains in South-East Asia, SEATO will be essential.

The area covered by the Pact is the whole area of South-East Asia and the South-West Pacific below 21 degrees 30 minutes north latitude and the entire territories of the Asian partners (Pakistan, the Philippines and Thailand).

SEATO's Headquarter is in Bangkok, the capital of Thailand.

### **Seato Civil Organization**

The Seato Council, the governing body, is composed of the Foreign Ministers of member countries. The Council meets usually once a year in the capital of a member country to determine policy and review progress in the various fields of SEATO endeavour.

The Council Representatives are the Ambassador to Thailand, the ambassadors of seven member countries and a representative of the Ministry of Foreign Affairs of Thailand, who meet monthly or more frequently in Bangkok. They are the primary means by which continual consultation is carried on among the SEATO member nations.

Council Representatives also supervise the work of the Organization, which is conducted under the authority delegated to the Secretary-General.

For the Council Representatives a voting formula has been adopted which does not require unanimity in reaching decisions. Initially, a target date for the making of a decision on any particular issue may be fixed by a simple majority. If by the target date, five or more members agree to the proposal, a decision is considered made, provided there is no dissenting vote. Members who abstain may later join in the action concerned.

The Permanent Working Group, composed of members of embassies (and of the Ministry of Foreign Affairs of Thailand), considers proposals referred to it by the Council Representatives, and works out the details of agreement.

The Budget Sub-Committee handles budget matters and financial procedures. It is composed of representatives of the embassies of the member countries and of the Ministry of Foreign Affairs of Thailand.

Expert Study Groups are regularly sponsored and convened by SEATO to find ways and means of assisting member countries. The resulting interchange of ideas and experience, plans of action, and information, helps member governments, as well as non-member countries in the Treaty area, to improve their national development and counter-subversion programmes.

The Intelligence Assessment Committee, consisting of delegations from each of the member nations, meets every six months in Bangkok to consider the problems of Communist subversion and insurgency in the Treaty area.

Specialist conferences, committees and study groups are called together from time to time to provide advice and recommendations to the Council Representatives in the fields of community development, culture, economics, education, health, information, labour and security matters. Programmes of mutual assistance and SEATO projects have been developed through these means of consultation.

The Secretariat constitutes the civil organization and is headed by the Secretary-General. He heads a total staff of about 180 and is responsible to the Council when it is in session, and at other times to the Council Representatives. He directs the work of the Secretariat-General and is the Organization's chief spokesman. The Secretary-General is assisted by a Deputy Secretary-General, who has among his duties, the function of acting as Chairman of the Permanent Working Group.

The third ranking official on the civil side of the Organization is the Special Assistant, who heads the OFFICE FOR COUNTER-SUBVERSION AND COUNTER-INSURGENCY (OCS) and who co-ordinates the activities of the offices in the Secretariat-General relating to these subjects.

Other offices of the SEATO Secretariat-General are the administrative research security, public information and the Office of Cultural and Economic Affairs. The Administrative Office is concerned with the daily activities and financial management of the Organization. The Research Office evaluates and reports on current trends in Communist activities in all parts of the world, but with special reference to the Treaty area. The Seato Library, although an integral part of the Research Office, serves all SEATO offices, civil and military while the Security Office is concerned with the internal security of SEATO Headquarters. The Public Information Office, presents facts about SEATO and its projects, informs the public about the member countries and conducts an "exposure" programme, the exposure of Communist tactics and engages in counter Communist propaganda. The Office of Cultural and Economic Affairs formulates and administers the cultural and economic programmes of SEATO until 1970, when community development work was added to the functions of this office.

## **The SEATO Military Organization . . . . A Deterrent**

In order to provide a strong shield behind which the countries of the area may be free to develop unmolested, the member nations of SEATO created a powerful deterrent to aggression in the area covered by its protection and strengthen their capacity to counter subversive activities.

This has not necessitated the setting up of a permanent command structure with deployed, assigned forces headed by a Supreme Commander. Rather, the emphasis has been placed on developing plans to meet would-be aggressors and improving the ability of the armed forces of the member nations to implement them and so strengthen the immense potential which backs the Treaty.

As a deterrent to aggression, the true value of SEATO is largely the knowledge of what would be the final retribution.

## **The Military Advisers' Group and Representatives**

Each member nation appoints a senior officer as its SEATO Military Adviser. They meet twice a year to evaluate the military implications of current developments, and give directions for co-ordinated defense planning in line with decisions of the council. The Military Advisers' Group is responsible to the Council for the proper functioning of the Military Planning Office.

Each military adviser has an officer with a rank of Colonel or its equivalent as his resident representative at the Military Planning Office. They are in effect liaison officers between the military advisers and the Chief of the military planning office. Their most important task is that collectively as a committee they review all important outgoing papers before they are dispatched by the Chief, Military Planning Office, thus ensuring that national positions are taken into consideration at all times.

## **The Military Planning Office and Specialist Committee**

The directions of the Military Advisers' Group are acted upon by the internationally-named Military Planning Office at SEATO Headquarters in Bangkok, which is headed by a Major-General or officer of equivalent rank.

This office is responsible for developing and maintaining up-to-date plans to ensure that the SEATO member nations will always be ready to take immediate and effective combined action against armed Communist aggression in the Treaty area.

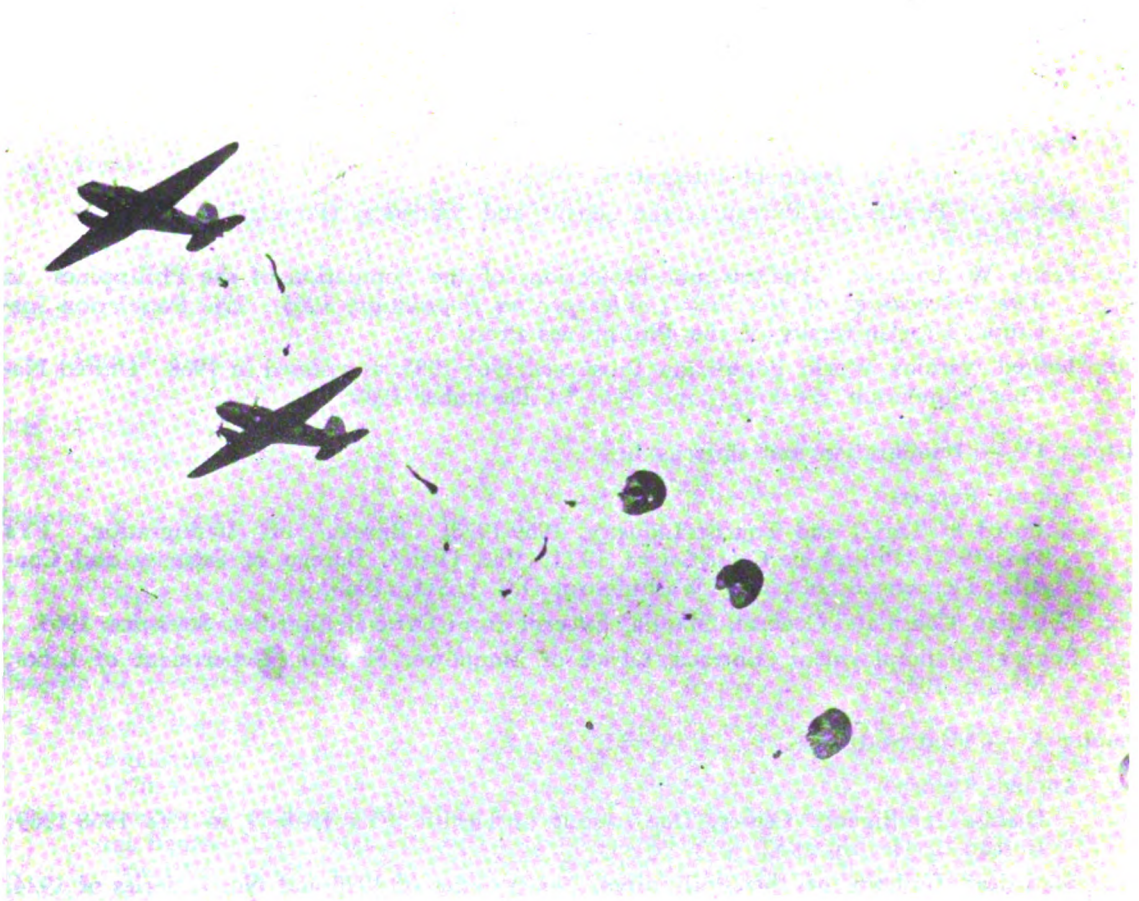
To assist the Military Planning Office in its task, meeting of various specialist committees are held to study in detail, such subjects as communications — electronics, intelligence, logistics, mapping, meteorology and medical matters relating to South-East Asia. From these studies considerable progress has been made in resolving the many problems of support activities in these fields.

**Exercises:** Any military plan is only as good as its capability to be implemented and SEATO military exercises are designed to test this capability. Exercises also keep service personnel from all member nations constantly aware of the practical problems of a plan in translating theory into practice. A third benefit is that they bring together in the field international staffs and forces who are able to further their ability to work together as an integrated SEATO force. The exercises also provide the visible proof of SEATO's inherent military capability.

SEATO military exercises fall into four broad categories.

- (1) Maritime, involving sea and air force;
- (2) Air-ground, in which air units give support to ground forces deployed in the field;
- (3) Sea-land, involving support of land operations by naval forces; and
- (4) Logistic, which tests the capability to provide the material and communication support required for any development.

SEATO believes that the more prepared it is, the less is the likelihood of any Communist aggressor being tempted into action which would result in any military plan being put into effect. It regards the fact that no SEATO plan has yet had to be implemented as a sign of success, since no SEATO member nation has fallen to Communist aggression since the inception of the Organization.



*R.P. paratroopers from the Army Airborne Company "drop in" to participate in SEATO's exercise "Subok" conducted in the Northern Central Luzon Province. "Subok," a multi-nation exercise to test SEATO forces in the planning, conduct, and execution of a combine amphibious operation, consisted of troops, aircraft and warships from five SEATO member nations including Australia, New Zealand, Republic of the Philippines, the United Kingdom and the United States.*

## BIBLIOGRAPHY

### Chapter I — Physiography and Related Sciences

- a. Annual Reports:  
Board of Technical Surveys and Maps; Bureau of Forestry, 1970; Bureau of Lands, 1970; Bureau of Mines, 1970; Park and Wildlife Office, 1968-1969; Philippine Coast and Geodetic Survey, Revised 1962; Reforestation Administration, 1970; Weather Bureau, FY 1960-1961 to FY 1969-1970.
- b. Catalogue of Philippine Volcanoes and Sulfatonic Area, 1966.

### Chapter II — Constitution, Government and Foreign Relations

- a. Annual Reports:  
Commission on Elections, 1970; Department of Foreign Affairs, 1970.
- b. The Philippine Constitution, 1964, Fifth Edition.

### Chapter III — Population

- a. Annual Reports:  
Commission on National Integration, 1957.
- b. Census of Population, Bureau of the Census and Statistics, (Population Division) 1903-1970.
- c. Frank W. Lorimer, "Analysis and Projections of the Population of the Philippines" in *The Proceedings of the First Conference on Population*, 1965. The Population Institute, The University of the Philippines Press.
- d. United Nations World Population Prospects, 1965-1985, as assessed in 1968. United Nations Population Working paper No. 30, December 1969.

### Chapter IV — Immigration and Citizenship

- a. Annual Reports:  
Board of Travel and Tourist Industry, 1969-1970; Bureau of Immigration, FYs 1965-1967; Philippine Coast Guard, 1971; Visa Office, Bureau of Security and Consular Department of State, Washington, D.C. U.S.A., 1966.
- b. Canadian Consulate General, Manila, Excerpt from Official Canadian Statistics, 1965.
- c. Registry of Employment Contracts, Office of Manpower Services, Department of Labor, Manila, 1966.

### Chapter V — Vital Statistics

- a. Annual Reports:  
Disease Intelligence Center, Department of Health, FYs 1958-59 to FYs 1968-1969; Bureau of Health, 1952.
- b. Statistical Bulletin of the Philippines, No. 3 Series of 1920 and No. 7, Series of 1924.
- c. Vital Statistics Report, Bureau of the Census and Statistics, (Demography and Vital Statistics Division), 1953-1969.
- d. Yearbook of Philippine Statistics, Bureau of the Census and Statistics, 1940.

## **Chapter VI — Health, Welfare and Social Security**

### **a. Annual Reports:**

Bureau of Medical Services, 1970; Department of Health, 1961, 1965-1966, 1970-1971; Digest of the Annual Report of the General Auditing Office, 1955-1970; Philippine Veterans Administration, 1970; Social Security System, 1957-1970.

## **Chapter VII — Education**

### **a. Annual Reports:**

Bureau of Education, 1967-1969; Bureau of Vocational Education, 1969-1970; Bureau of Public Schools, Department of Education, 1967-1968; Civil Service Commission, 1969-1970.

### **b. Education Survey Report, 1970**

### **c. Education Statistics, Bureau of Education, 1968-1969.**

### **d. Statistical Bulletin:**

Bureau of Private Schools, 1967-1969; Bureau of Public Schools (Research, Evaluation, and Guidance Division) 1968-69.

## **Chapter VIII — Scientific and Industrial Research**

### **a. Annual Reports:**

Foreign Aid Programs in the Philippines, Office of Foreign Aid Coordination, National Economic Council, 1965-1970; National Science Development Board, 1970-1971.

## **Chapter IX — Crime and Delinquency**

### **a. Annual Reports:**

Bureau of Prisons, Department of Justice, 1961-1970; Police Commission, 1970.

### **b. Revised Penal Code.**

### **c. Yearbook of Philippine Statistics, Bureau of the Census and Statistics, 1969.**

## **Chapter X — Land Use and Renewable Resources**

### **a. Annual Reports:**

Department of Public Works and Communication, 1970-1971; National Waterworks and Sewerage Authority, 1955-1971; Parks and Wildlife Office, 1970.

## **Chapter XI — Agriculture**

### **a. Annual Reports:**

Agricultural Credit Administration, 1968-1970; Bureau of Agricultural Economics, 1970; Bureau of Animal Industry, 1970; Department of Agriculture and Natural Resources, 1970; Development Bank of the Philippines, 1965-1970; Department of Rural Banks, Central Bank of the Philippines, 1968-1970; Philippine National Bank, 1966-1970; Philippine Sugar Institute (Economic Research and Statistics Division) 1964.

### **b. Census of Agriculture, Bureau of the Census and Statistics, Department of Commerce and Industry, 1960 and 1971.**

### **c. Handbook of Agriculture and Natural Resources, Bureau of Agricultural Economics, DANR 1970.**

### **d. Philippine Agricultural Situation, Bureau of Agricultural Economics, DANR.**

**Chapter XII — Forestry**

- a. Annual Reports:  
Bureau of Forestry, Department of Agriculture and Natural Resources, 1970
- b. Foreign Trade Statistics of the Philippines, Bureau of the Census and Statistics (Foreign Trade Division) DCI, 1969-1970.
- c. Philippine Forestry Statistics, Bureau of Forestry, DANR, 1968-1970.
- d. Economic Census of the Philippines, Census of Forestry and Logging, Bureau of the Census and Statistics, 1960.

**Chapter XIII — Fisheries**

- a. Census of Fisheries, Bureau of the Census and Statistics, Department of Commerce and Industry, 1971.
- b. Fisheries Statistics of the Philippines, Philippine Fisheries Commission, 1964-1970.
- c. Foreign Trade Statistics of the Philippines, Bureau of the Census and Statistics (Foreign Trade Division) DCI, 1965-1969.

**Chapter XIV — Mines and Minerals**

- a. Annual Reports:  
Bureau of Mines, Department of Agriculture and Natural Resources, 1967-1969.
- b. Minerals News Service, Bureau of Mines, DANR 1969-1970.
- c. Philippine Mining Industry, 1968.

**Chapter XV — Electric Power**

- a. Annual Reports:  
Manila Electric Company, 1964-1971; National Power Corporation, 1968-1971; National Electrification Administration, 1970.
- b. Snyder Unit I brochure, Meralco.

**Chapter XVI — Manufactures**

- a. Annual Survey of Manufacturers, Bureau of the Census and Statistics, Department of Commerce and Industry, 1956-1970.
- b. Foreign Trade Statistics of the Philippines, Bureau of the Census and Statistics, DCI, 1968-1970.
- c. Statistical Bulletin, Central Bank of the Philippines, 1970.

**Chapter XVII — Capital Expenditures, Construction and Housing**

- a. Annual Reports:  
People's Homesite and Housing Corporation, FY 1969-1970.
- b. Economic Census of the Philippines, 1961, Construction, Vol. IV Bureau of the Census and Statistics, DCI.
- c. Journal of Philippine Statistics, Bureau of the Census and Statistics, DCI, 1968-1970.
- d. Monthly Survey of Private Building Construction, BCS (Industry Division), DCI, 1966-1971.
- e. Survey of Local Government Construction, Bureau of the Census and Statistics (Services Division), DCI, 1969-1970.



**Chapter XVIII — Labor****a. Annual Reports:**

Department of Labor (Bureau of Labor, Bureau of Labor Standards, Office of Manpower Services, Office of Apprenticeship and Regional Offices) 1960-1971; Bureau of Workmen's Compensation, 1970.

**b. Central Bank News Digest, Central Bank of the Philippines, Vol. XXII No. II, March 10, 1970.****c. Economic Census of the Philippines, Advance Release, Bureau of the Census and Statistics, 1967.****d. Input-Output Table, Bureau of the Census and Statistics, DCI, 1965.****e. Special Release, No. 130, Series of 1972, Month of March, Bureau of the Census and Statistics, DCI.****f. Survey of the Local Government Employment and Payrolls, January-June, 1970, Bureau of the Census and Statistics, (Services Division), Department of Commerce and Industry.****Chapter XIX — Transportation****a. Annual Reports:**

Bureau of Customs, 1970; Civil Aeronautics Board, Department of Public Works and Communication, 1969; Land Transportation Commission, DPWC, 1971; Philippine National Railways, 1970; Philippine Coast Guard, 1970.

**b. Republic Act No. 4136, Land Transportation and Traffic Code.****Chapter XX — Communications****a. Annual Reports:**

Bureau of Posts, Department of Public Works and Communication, 1970; Bureau of Telecommunications, DPWC, 1961-1970; Philippine Long Distance Telephone Company, 1960-1970; Department of Public Works and Communication, 1965-1970.

**b. Weekly Nation Magazine, 1971 July****c. Journal of Philippine Statistics, Vol. 22 No. 4, Fourth Quarter 1971, Bureau of the Census and Statistics, DCI.****d. Philippine Press Forum, Philippine Press Institute, August 1971.****Chapter XXI — Domestic Trade and Prices****a. Economic Census of the Philippines, Census of Retailing and Wholesaling Establishments, Bureau of the Census and Statistics (Economic Census and Services Divisions), 1961 and 1967.****b. Facts and Figures of the Philippines, Bureau of the Census and Statistics, 1963.****c. Central Bank News Digest, Central Bank of the Philippines, 1970.****d. Philippine Agricultural Situation, Bureau of the Census and Statistics, 1968.****Chapter XXII — Foreign Trade****a. Foreign Trade Statistics of the Philippines, Bureau of the Census and Statistics, DCI, 1962-1971 (Foreign Trade Division).****b. Handbook of Philippine Statistics, Bureau of the Census and Statistics, DCI 1971.**



**Chapter XXIII — Government Finance****a. Annual Report:**

Budget Commission, Department of Finance, 1961-1969; Bureau of Internal Revenue, Department of Finance, 1951-1970; Bureau of Customs, Department of Finance 1951-1970; Bureau of Commerce, DCI, 1949-1969; General Auditing Office, 1961-1970; Securities and Exchange Commission, 1947-1969.

**b. Central Bank News Digest, Central Bank of the Philippines, 1970.****c. Statistical Bulletin, Volume XXI No. 4, 1969, Central Bank of the Philippines.****d. Yearbook of Philippine Statistics, Bureau of the Census and Statistics, 1969.****Chapter XXIV — Trends in Economic Aggregates****a. BCS Survey of Households Bulletin, May series, 1960-1971, Bureau of the Census and Statistics, DCI.****b. Census of Population, Advance Report, 1970, Bureau of the Census and Statistics, DCI.****c. Four-year Economic Development Program 1972-1975, National Economic Council.****d. Annual Report:**

Board of Investments, 1971; Central Bank of the Philippines, 1971; Philippine Economy Bulletin.

**e. Statistical Bulletin, Central Bank of the Philippines, 1971.****f. Philippine Economy Bulletin, Volume VI, No. 5, 1968 National Economic Council.****Chapter XXV — Banking, Other Commercial Finance and Insurance****a. Annual Report:**

Central Bank of the Philippines, 1971; Insurance Commission, 1969; Government Service Insurance System, 1970; Philippine Development Corporation of the Philippines, 1971; Social Security System, 1971.

**b. Statistical Bulletin, Central Bank of the Philippines, 1971.****Chapter XXVI — Defense****a. Annual Report:**

Armed Forces of the Philippines, Department of National Defense, 1970; Department of National Defense, 1970.

**b. Agreement Between the Republic of the Philippines and the United States of America Concerning Military Bases, Manila 14 March 1947.****c. Mutual Defense Treaty Between the United States of America and the Republic of the Philippines, Washington, D.C., USA, 30 August 1951.**