

**Report on the Survey of
Urbanization and Development
in Asian Countries
—— **Philippines** ——**

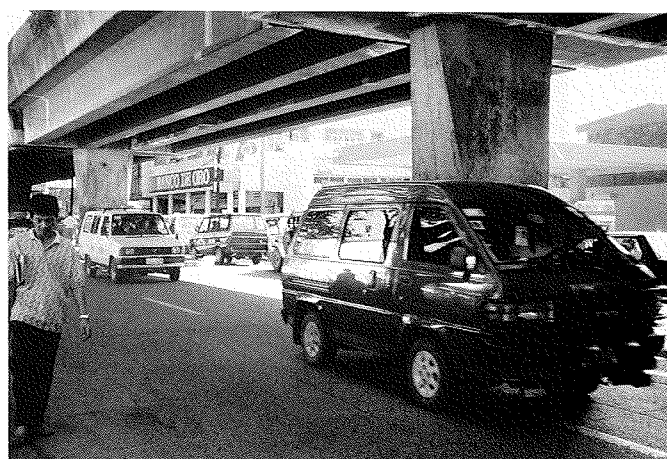
MARCH 1997

**The Asian Population and Development
Association**

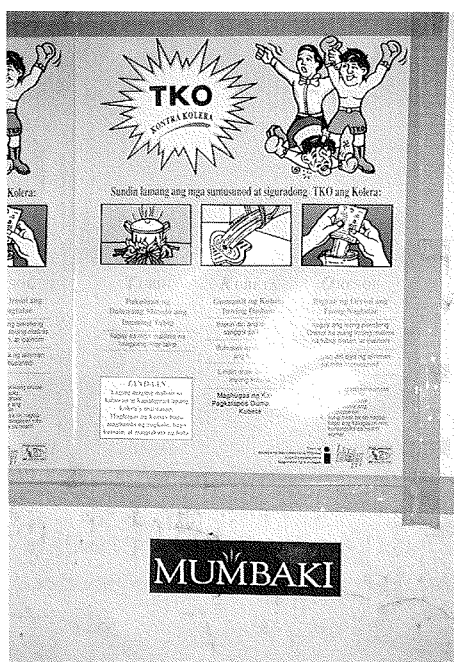
Courtesy call on H.E. Ambassador Hiroyuki Yushita (center) and Mr. Norihiko Yoda, First Secretary (left) at Embassy of Japan in Philippines. From the right, Mr. Tomomi Otsuka, Team member and Mr. Minoru Kiryu, Team leader.



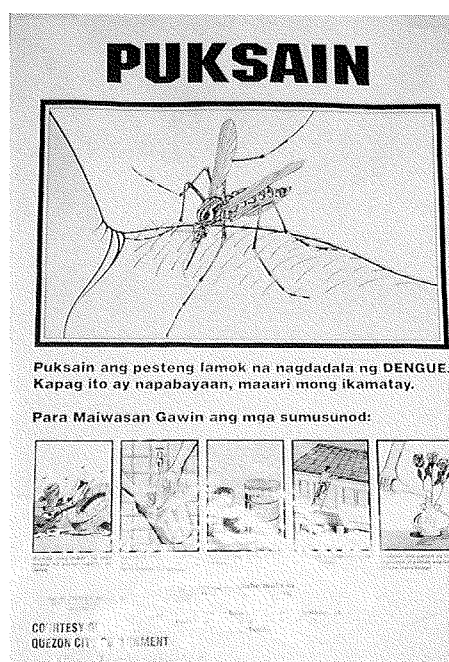
The dumpsite locating near the seashore of Cebu city



The traffic jam of Metro Manila



A poster of DOH to call people's attention to public health



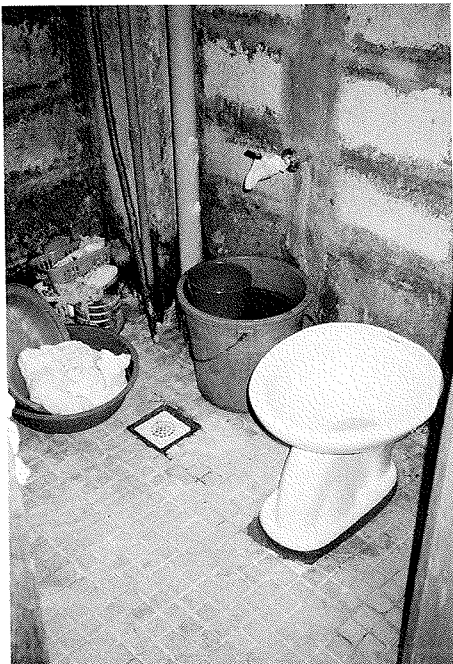
A prophylactic poster of dengue fever



The housing built by the government at Commonwealth barangay in Quezon city.



The slum area of Payatas barangay in Quezon city. Children are washing clothes beside the well.



The toilet in each unit of the housing.



The toilet located outside that the family in slum area are using with their neighborhood.

Foreword

This report presents the findings of survey on population and development in the Philippines. In 1996, the Asian Population and Development Association (APDA) was entrusted with the survey project "Survey of Urbanization and Development in Asian Countries" by the Ministry of Health and Welfare and the Japan International Corporation of Welfare Services (JICWELS). APDA selected the Philippines as the country in which its field survey would be conducted. The actual survey and analysis of the resultant findings were conducted by APDA's survey committee (Chairperson - Dr. Toshio Kuroda, Director Emeritus, Nihon University Population Research Institute).

Urbanization is progressing rapidly in Asian countries. Urbanization resulting from the sudden concentration of the population is causing a deterioration in health and medical services, family planning and maternal and child health services, and the living environment in cities. Because of this, there is a need to understand in detail the growth and distribution of the population, the health and medical situation, population estimates, the age composition, and the family planning and maternal and child health in these countries, and to study how these affect the population policies and development plans of the countries. The objective of this survey therefore was to research and analyze the population trends in Asian countries, and in particular the state of urbanization and health and medical services, so as to contribute to solving the problems of urbanization of the population and development of Asian countries.

The field survey was conducted with the guidance and cooperation of H. E. Mr. Hiroyuki Yushita, Ambassador of Japan to the Philippines and Mr. Norihiko Yoda, First Secretary, Embassy of Japan in the Philippines and Mr. Marius Diaz, Philippine Legislators' Committee on Population and Development Foundation, Inc. (PLCPD), as Project Coordinator. In Japan members of the Policy Planning & Evaluation Division, Minister's Secretariat, Ministry of Health and Welfare and of the Department of Policies, Economic Cooperation Bureau, Ministry of Foreign Affairs cooperated on the planning and arrangements of the field survey. I would like to express my heartfelt gratitude to all of them.

I sincerely hope that this report will contribute to the future advancement of the urbanization and population programs of the Philippines as well as the Japanese government's effective cooperation with the Philippines.

Furthermore, I would like to add that this report is the responsibility of the APDA and does not necessarily reflect the views or policies of the Ministry of Health and Welfare or the Japanese government.

March, 1997
Fukusaburo Maeda
Chairman
The Asian Population and
Development Association

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Chapter One

Introduction

–Multiculturalism of the Philippines–

1 A large country with the population of 69 millions

The Philippines is a large country located in Southeast Asia whose population follows only Indonesia with a population of 200 millions and Vietnam with a population of 76 millions ¹⁾, and is a very unique country in Asia. Needless to say, the Philippines is a Catholic country that has been influenced by European and American culture, having been under the long rule of Spain and the USA. Furthermore, making the culture of the Philippines even more complicated is the island-oriented local cultures that make up the country. For example, there is said to be 988 dialects, of which Tagalog and Cebuano are the overwhelming, the majority with both making up 52%. Also, the dialects Ilocano and Hiligaynon each make up 10%. Moreover, English is also an official language, and is widely used.

We will take a look at these characteristics of the Philippines, while making comparisons with the neighboring countries of Thailand and Indonesia which also have large populations.

2 Slow demographic transition

We will first compare the three neighboring countries using the demographic transition

index²⁾, which is one characteristic that reflects the degree of modernization. Thailand has an index of 0.85, indicating rapidly progressing, whereas Indonesia has a low index of 0.68. However, the level of demographic transition in the Philippines is the lowest with an index of 0.63. Having the largest effect on the level of demographic transition index is the Total Fertility Rate (TFR). In comparison to the TFR of Thailand of 2.10, that of the Philippines is 4.02, nearly double that of Thailand, and the TFR of Indonesia falls in between at 2.90³⁾. One other factor that affects the demographic transition index is the average life expectancy which is representative of the mortality rate more accurately, and Thailand has the longest with an average life expectancy of 69.0 years. The average life expectancy of the Philippines is 66.2 years, which is longer than that of Indonesia of 62.7 years⁴⁾. Indonesia was low for TFR but was reversed for life expectancy. Even though the average life expectancy of the Philippines is longer than that of Indonesia, its demographic transition index is less than that of Indonesia because its level of TFR is much higher than that of Indonesia. The TFR of the Philippines dropped from 6.04 in the period 1965-1970 to 4.02 in the period 1990-1995. The rate of decrease was only 33.4%. However, in Indonesia, during the same period, the TFR dropped from 5.57 to 2.90, a 48% rate of decrease. In Thailand, the TFR dropped by 66% from 6.14 to 2.10.

The rate of urbanization in the Philippines is very high, and also the literacy rate is high. However, the slow decrease in TFR is probably due to the influence of the overwhelming majority of Catholics (89.9%).

3 High rate of urbanization

In the Philippines, the percentage of urban population is 54%, which is very high in comparison to the 35% in Indonesia and 20% in Thailand. It is interesting that in Thailand, where the demographic transition index was the highest, and the rate of urbanization is the lowest⁵⁾.

The National Capital Region (Metro Manila) is the leading urban area in the urbanization of the Philippine population, and is similar to urban situation of many Southeast Asian countries. In 1990, the population of Metro Manila was 8 millions, making up 28% of all urban population, and 13% of the total population. However, one thing that should be noted, is the surrounding areas of Metro Manila (areas called the Metropolitan Shadows, including central Luzon and southern Tagalog) experienced rapid growth during the 1970s and 1980s, and now have a population approaching that of Metro Manila of 7.7 millions⁶⁾. The total population of Metro Manila and these Metropolitan Shadows is 15.7 millions, or 55% of the total urban population.

The government's policy of controlling the population trend centered around the Metro

Manila area was put into effect early. In the 1960s, financial assistance for migrants to Mindanao Island was offered, and a policy of developing local areas for controlling the concentration of population in large cities (Metropolitan Counter Magnets policy) was adopted. However, like in many other countries, the results of these distribution policies have not been successful as expected.

One thing that must be paid attention to in the urbanization of the Philippine population, is the cause of urbanization. The main cause, is not the migration from rural areas to urban areas as is normally the case, but is natural increase. Also, another important cause is the government reclassification of rural towns as cities. According to the 1990 census, the increase in urban population during the period of 1980 to 1990 was 58.6% due to natural increase, 35.5% due to reclassification, and only a mere 5.9% due to migration. Even in Metro Manila, where it was estimated that there would be a remarkable increase in population due to migration, the increase was 63% due to natural increase and 37% due to pure migration ⁷⁾. In Metro Manila, increase in population due to reclassification was zero. Here, the effect of the high fertility rate in the Philippines can be seen.

One point that should be noted, is that approximately half of the increase in urban population was due to reclassification of Barangay as an urban area from a rural area according to the conditions established in 1970 defining an urban area. Also, the average rate of increase in urban population during the period 1980 to 1990 due to only natural increase and population migration was not 5.0% but 2.3% ⁸⁾.

4 Escape from a stagnating economy

If we look at the trends of the Philippine economy in terms of the annual growth rate of GNP, we see that in the 1970s, the Philippines was able to maintain a growth rate of 5% or more that was nearly equal to that of Indonesia and Thailand. However, from the 1980s until the beginning of the 1990s, the growth rate began to slow, and in time reversed to minus growth. This was a great step backward compared to the high growth rate of Thailand and Indonesia, especially Thailand which experienced a double-digit growth rate. However, since the establishment of the Ramos administration (June 1992), new development stage of economic growth brought about by political stability and relaxation of economic regulations and liberal policies has started. The growth rate of the GDP in 1991 was minus 0.6%. However, soon a recovery trend began, and in 1994 the growth rate had reached 4.3%, and in 1995 increased even further to 5.2% ⁹⁾.

We can see favorable conditions in the Philippines that strongly support achieving the

economic development plan, "Philippine 2000" which aims at political stability and reaching the level of NIEs in the year 2000. Those conditions are the literacy rate and the level of education.

If we compare the adult literacy rate in the Philippines, Thailand and Indonesia, we see that in 1960, it was 72% in the Philippines, 68% in Thailand and 39% in Indonesia. In 1970, the literacy rate in the Philippines was 83%, 79% in Thailand and 57% in Indonesia, and then in 1980, the literacy rate in Thailand increased to 88%, which was a little above the 87% of the Philippines, and it was 67% in Indonesia.

If we look at the level of education in terms of the gross enrollment ratio, we see that it has reached 100% for elementary education in all three countries. However the problem is in secondary and higher educations. The gross enrollment ratio for secondary education is 68% in the Philippines, 41% in Indonesia and 29% in Thailand. For tertiary school, the enrollment rate is 38% in the Philippines, which is much higher than the 20% in Thailand and 7% in Indonesia (The above figures are for 1986). It is well documented that there is a close relationship between economic growth and the level of education, and it is expected that the new economic development in the Philippines will be encouraged and accelerated by underlying supporting factors of extremely high level of education and literacy rate.

[References]

- 1) UNFPA: The State of the World Population 1996 (Japanese version)
- 2) The following report was used as a reference for details about the demographic transition index:
Kuroda, Toshio: Demographic Transition in Japan and Its Spread in Asia, "Population and Society of Postwar Japan", Mainichi Newspaper, 1994 (Chapter 1, P.6)
- 3) The TFR of the three countries are from United Nations: World Population Prospects, The 1994 Revision.
- 4) The average life expectancy is also from the same World Population Prospects, the 1994 Revision as TFR .
- 5) The urbanization rate is according to UNFPA: The State of World Population 1996 (Japanese version).
- 6) Perez, Aurora E., and Cabegin, Emily: An Overview of Urbanization in the Philippines: 1950 - 1990 (Chapter 1 of this report)
- 7) According to "Perez, Aurola E.,etc.: An Overview of Urbanization in the Philippines: 1950 - 1990", shown above.

- 8) Flieger, Wilhelm: The Population of the Philippines, A Profile based on the 1990 Census. Report presented to the International Advisory Committee Meeting at the Kobe Asian Urban Information Center (March 9-10, 1996 in Singapore).
- 9) For details about the economic growth in the Philippines, refer to Chapter 2, "Economic Development and Urbanization."
- 10) Pernia, Ernesto M., Economic Growth Performance of Indonesia, the Philippines, and Thailand: The Human Resource Dimension, *in* "Human Resources in Development along the Asia-Pacific Rim," edited by Naohiro Ogawa, Gavin W. Jones, and Jefferey G. Williamson, Oxford University Press, Singapore, 1993, P.166.

Chapter Two

An Over View of Urbanization in the Philippines: 1950-1990

Introduction

The Philippine pattern of human settlement oriented towards a “center” has its origin in the early colonization period under the Spanish rule. This was characterized by the dominance in physical infrastructure development of the center of town called “poblacion” which served primarily as the principal seat of governance. This loci of government activity triggered a centripetal movement of economic goods, social and cultural amenities, and of people. The early transformation of nearby villages were perceived as a positive effect of the process of spatial and socio-economic development emanating from the center. Thus, the growth of the central place was often times viewed as contributing to the growth of “urban” populations and the birth of “urbanism”.

Today this notion still prevails as evidenced by the state-initiated growth of multiple urban agglomerations in the country spawned by a national policy of implementing spatially planned urban growth centers away from the congested mega metropolis in the National Capital Region. Such an urban spatial development policy is a response to the ever growing threats of a lopsided urbanization process which continues to provide incentives for the development of relatively developed areas at the expense of the less developed areas.

The uneven urbanization process in the Philippines from a demographic perspective will

be described in this article. Necessarily, the changes in levels of urbanization, the growth of urban population, and the components of urban growth, will be analyzed using census data at different points in time. This description is limited to the time period 1950-1990 and uses the major groups of regions of the country as the unit of analysis.

1 Size and growth of urban population

Urban areas, as used in this analysis, is derived after an application of the 1970 urban definition at the different time periods. Briefly, this definition considered jointly three criteria: population density of at least 500 persons per square kilometer, urban characteristics and a minimum population size of 1,000. As can be gleaned from Table 1, the number of population living in urban areas doubled in the first two decades from 5.6 million during the Post-war period (1950) to 11.7 million in 1970. Note however that it almost tripled in the last two decades reaching 28.6 million in 1990. The significance of Metro Manila in the country's urbanization is easily discerned from the absolute number of population in urban areas if it were to be excluded. Without Metro Manila and its population growth, the total urban population of the Philippines would only be 20.6 million, a substantially reduced size from what it truly is (see Table 1).

Data for the rest of the country's less urbanized regions show that the regions geographically proximate to Metro Manila or the metropolitan shadows region composed of Central Luzon to the north, and Southern Tagalong to the south, rank next to Metro Manila in terms of urban population size. These two regions more than doubled its level of urbanization from 1950 to 1990 (see Table 2). While Central Luzon had a level of urbanization of 24.9 per cent in 1950, it exhibited a level of urbanization of 54.3 per cent in 1990. Southern Tagalong's level of urbanization grew from 20.9 per cent in 1950 to 52.9 per cent in 1990. Of the two regions, Southern Luzon experienced a relatively larger change in its urbanization. This may be attributed to the greater changes in economic activity in the region compared to Central Luzon. These regions are much ahead of other areas in the country in terms of industrialization and economic development. Faster economic growth is projected with the location of industrial estates in these regions. It is also anticipated that over time, the geographic spread of Metro Manila will eventually see the integration of some of the nearby provinces of Central Luzon and Southern Tagalog in the mega metropolis.

The initial effects of recent efforts of government to decentralize the congested Metro Manila region is apparent from the substantial increase in the level of urbanization of the Metropolitan counter-magnet regions, particularly so for Central Visayas where Metro Cebu is expe-

riencing rapid economic development and social change. The level of urbanization for Central Visayas more than doubled from 18.3 per cent in 1950 to 42.5 per cent in 1990. Note that the increase in the level of urbanization of Central Visayas exceeded that of the increase in Northern Mindanao, where Davao is located, by 15 percentage points for the same period. This difference in levels of urbanization may be attributed to the problems of peace and order that was prevalent in Northern Mindanao until the recent years.

Overall, the level of urbanization in the country is notably consistent in its upward trend. The 1990 census estimated 47 per cent of Philippine population were in urban areas making the country a rapidly urbanizing country in the Southeastern Asian region. The primacy of Metro Manila in the urbanization process in the country is made distinct by Figure 1.

2 Urban growth rates

The regional differentials in urban population growth rates continue to persist, as it had before, but the data reveal a pattern of increasing convergence (see Table 3). This is an indicator signaling some leveling off in the regional disparities in development. This observed convergence implies that increasingly more rural areas are beginning to be urbanized through established mechanisms of diffusion that are in operation.

Metro Manila grew steadily until the seventies but declined thereafter. The peak of urban growth in the primate metropolis was between 1960 and 1970 estimated at 5 per cent per annum. This growth rate however slackened during the periods 1970-1980 and 1980-1990, dropping substantially to 3 per cent in the latter period. By contrast, the metropolitan shadows regions show an upsurge in urban growth rates during the more recent two decades. The growth rate for the period 1980-1990 of 6.1 per cent is indeed comparable to the growth rates for the predominantly rural regions that have much more room for urban population growth considering its low levels of urbanization.

The picture one gets from the data on urban growth rates is a two-pronged increase at two extremes: one at the higher end of the metropolitan shadows region and one at the lower end of the rural dominance regions. One might expect substantial convergence where the concept of the rural-urban continuum becomes irrelevant in development studies and in designing development plans and programs if this trend continues into the future.

3 Decomposition of urban growth

A demographic perspective of urbanization entails an analysis of the components of urban growth, namely, net migration, natural increase, and net reclassification of areas. It has always been popularly claimed that there is a substantial rural-to-urban migration in the Philippines in recent years and that rural-to-urban migration was mainly responsible for the numerous social and economic problems associated with urbanization in the country. The problem with this claim is that it is based on the perceived role of migration from rural areas to Metro Manila in isolation from the rest of the country and from the rest of the population movements in other parts of the country.

Thus the role of rural-to-Metro Manila migration is almost always viewed as increasing the social costs of urbanization.. The role of natural increase in the increase of urban growth has seldomly been studied. More so the contribution of net reclassification of areas formerly classified as rural but which took on urban characteristics over time and thereby eventually got reclassified as urban.

The 1990 census data allow for the decomposition of the urban growth in the Philippines. As can be gleaned from the data in Table 4, natural increase rather than net migration was the major contributor to urban growth in the Philippines. At the national level, the proportionate share of net migration was merely 5.9 per cent while natural increase had the largest share of 58.6 per cent. Net reclassification of areas was accountable for 35.5 per cent of total urban growth. These findings clearly negate the popular claim of the significance of population movement from rural to urban areas.

However, at the sub-national level, net migration gains significance, particularly for the more developed regions of Metro Manila and the metropolitan shadows regions. What the data imply is that as urbanization proceeds at higher levels and at relatively faster rates of urban growth as in Southern Luzon where industrial estates are in operation, Central Visayas where Metro Cebu is geographically located and in Northern Mindanao where Davao is located, the volume of population movements increase.

As commonly observed, migration of people from the rural areas of the country to Metro Manila and Southern Luzon, where employment opportunities are relatively more and where other social services are better, contribute to its urban growth more substantially than it does in other less urbanized regions.

However, the share of net migration compared to natural increase is still substantially lower. In Metro Manila the contribution of natural increase was 62.8 per cent while that of net migration was 37.2 per cent. In the metropolitan shadows regions, the proportionate shares of natural increase and net migration were 45.9 per cent and 11.0 per cent, respectively. The differ-

ences in the relative importance of each of the components of urban growth is more clearly indicated in Figure 2.

For the less urbanized regions, i.e., the mixed rural-urban regions and the rural dominance regions, net migration had negative shares implying that more than net migration, reclassification of areas had larger contributions to urban growth. This is true except for some rare cases such as the Cordillera Autonomous Region in the northern part of the country where Baguio City attracts population for the economic as well as social amenities and benefits it offers and in Central Mindanao where General Santos City also attracts people to migrate for employment and other economically-motivated reasons. Nonetheless, the natural increase component of urban growth in such regions remains significant.

This decomposition underscores the importance of focusing on the demographic aspects of urbanization and population distribution in the Philippines. The issue seems to be one of rejecting or accepting urban growth at current patterns and trends given the primordial roles of natural increase and net reclassification. While the former implies the concern for regulating fertility of Filipino couples in large cities, the latter points out to the systematic downward bias on the indicators of poverty, unemployment and underemployment as well as on land and shelter indicators in urban areas in the absence of reclassification. This can present problems in the identification of priority areas for government investment on social services. However, the underlying theme of both issues is the impact of population growth on physical land use and the process of urbanization over time.

Conclusion

The analysis of trends in urbanization in the Philippines briefly presented in this article provides a comprehensive view of the unbalanced interregional and intraregional regional development. Given such imbalance in areal development, the resulting imbalance in population distribution across the regions of the country becomes a major theme in policy discussions of regional development planning vis-a-vis regional population management.

In reality, it is the large million plus cities that present threats to human lives of the countless urban poor deprived of dignified lives. Part of the current urban problems in such large cities of Metro Manila and Metro Cebu, located in the more urbanized regions, is due to the past neglect of rural areas. Philippine cities in the future need not be a semblance of the large cities now. If the present government pursues decentralization of local government units in the fiscal provision for physical and social infrastructure and services, the stimulation of medium-sized cities needed for a decentralized overall growth may well contribute to substantial reduction in

past interregional and intraregional development imbalances that fuel a lopsided urbanization. Hopefully by then, Philippine urbanization would be seen in a more positive light than it is seen today.

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(University of the Philippines Population Institute at Diliman, Quezon City, Philippines)

Table 1. Urban Population in the Philippines by Region: 1950-1990

Region	1990	1980	1970	1960	1950
Philippines	28550195	18042045	11677820	8072485	5592649
Philippines (excluding Metro Manila)	20601803	12116161	7711125	5645997	3936877
Metropolitan Manila	7948392	5925884	3966695	2426488	1655772
Metropolitan Shadows	7742944	4278355	2457879	1509867	978154
Central Luzon	3367650	2009527	1092445	678610	489855
Southern Tagalog	4375294	2268828	1365434	831257	488299
Metropolitan Counter-Magnets	3722262	2350330	1432075	891077	580667
Central Visayas	1950514	1216992	846557	560794	414725
Southern Mindanao	1771748	1133338	585518	330283	165942
Mixed Rural-Urban Regions	4534778	2722093	1839772	1701870	1223820
Northern Mindanao	1383946	748903	408190	254231	213770
Ilocos	1147507	688435	466207	509851	352582
Western Visayas	2003325	1284755	965375	937788	657468
Rural Dominance Regions	4601819	2765383	1981399	1543183	1154236
Cordillera Autonomous Region	345283	183497	130656		
Cagayan Valley	503890	340235	222322	169825	105705
Bicol	1048333	761891	568784	517165	386761
Eastern Visayas	858935	611200	462568	385695	355337
Western Mindanao	953110	439649	294365	226265	193242
Central Mindanao	892268	428911	302704	244233	113191

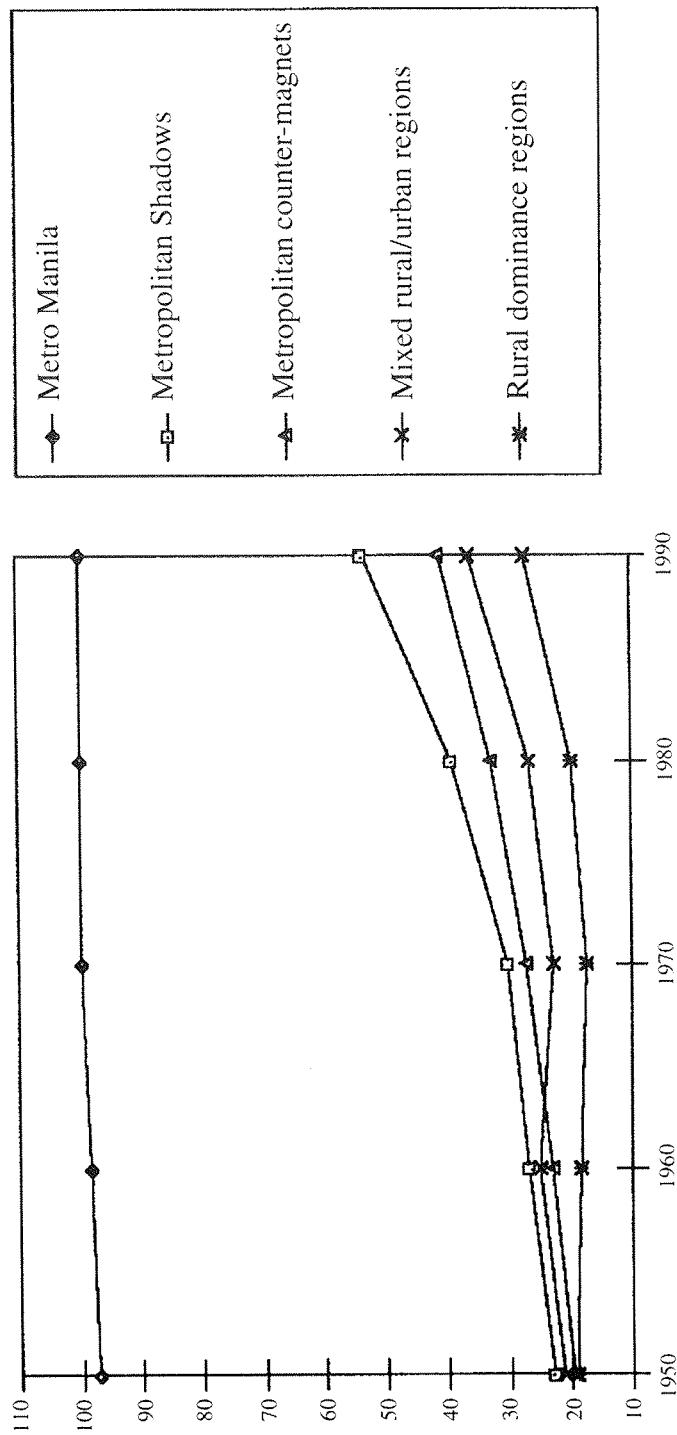
Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990"
(Forthcoming)

Table 2. Level of Urbanization in the Philippines by Region: 1950-1990

Region	Level of Urbanization				
	1990	1980	1970	1960	1950
Philippines	47.0	37.5	31.8	29.8	27.0
Philippines (excluding Metro Manila)	39.1	28.7	23.6		
Metropolitan Manila	100.0	100.0	100.0	98.5	97.3
Metropolitan Shadows	53.5	39.2	30.5	26.9	22.8
Central Luzon	54.3	41.8	30.2	26.9	24.9
Southern Tagalog	52.9	37.1	30.6	27.0	20.9
Metropolitan Counter-Magnets	41.1	32.9	27.4	23.0	19.7
Central Visayas	42.5	32.1	27.9	22.2	18.3
Southern Mindanao	39.7	33.9	26.6	24.4	24.8
Mixed Rural-Urban Regions	36.4	26.7	22.8	25.0	21.2
Northern Mindanao	39.4	27.1	20.9	19.6	22.3
Ilocos	32.3	23.6	18.7	21.0	16.8
Western Visayas	37.1	28.4	26.7	30.5	24.1
Rural Dominance Regions	27.4	19.9	17.5	18.5	19.3
Cordillera Autonomous Region	30.1	20.1	17.9		
Cagayan Valley	21.5	17.7	15.2	14.1	12.3
Bicol	26.8	21.9	19.2	21.9	21.8
Eastern Visayas	28.1	21.8	19.4	18.9	19.8
Western Mindanao	30.2	17.4	15.7	16.8	24.5
Central Mindanao	28.1	18.9	15.6	17.7	14.1

Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990" (Forthcoming)

Figure 1. Level of Urbanization in the Philippines, by Region; 1950-1990



Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990". (Forthcoming)

Table 3. Rate of Urban Growth in the Philippines by Region: 1950-1990

Region	Rate of Urban Growth			
	1980-90	1970-80	1960-70	1950-60
Philippines	4.7	4.4	3.8	4.0
Philippines (excluding Metro Manila)	5.5	4.6		
Metropolitan Manila	3.0	4.1	5.0	4.2
Metropolitan Shadows	6.1	5.7	5.0	4.7
Central Luzon	5.3	6.3	4.9	3.5
Southern Tagalog	6.8	5.2	5.1	5.8
Metropolitan Counter-Magnets	4.7	5.1	4.8	4.7
Central Visayas	4.8	3.7	4.2	3.3
Southern Mindanao	4.6	6.8	5.9	7.6
Mixed Rural-Urban Regions	5.2	4.0	1.4	3.6
Northern Mindanao	6.3	6.3	4.8	1.9
Ilocos	5.2	4.0	1.3	4.0
Western Visayas	4.5	2.9	0.3	3.9
Rural Dominance Regions	5.2	3.4	1.9	3.2
Cordillera Autonomous Region	6.5	3.5		
Cagayan Valley	4.0	4.3	3.5	5.2
Bicol	3.2	3.0	1.0	3.2
Eastern Visayas	3.5	2.8	1.8	0.9
Western Mindanao	8.0	4.1	2.7	1.7
Central Mindanao	7.6	3.5	2.2	8.6

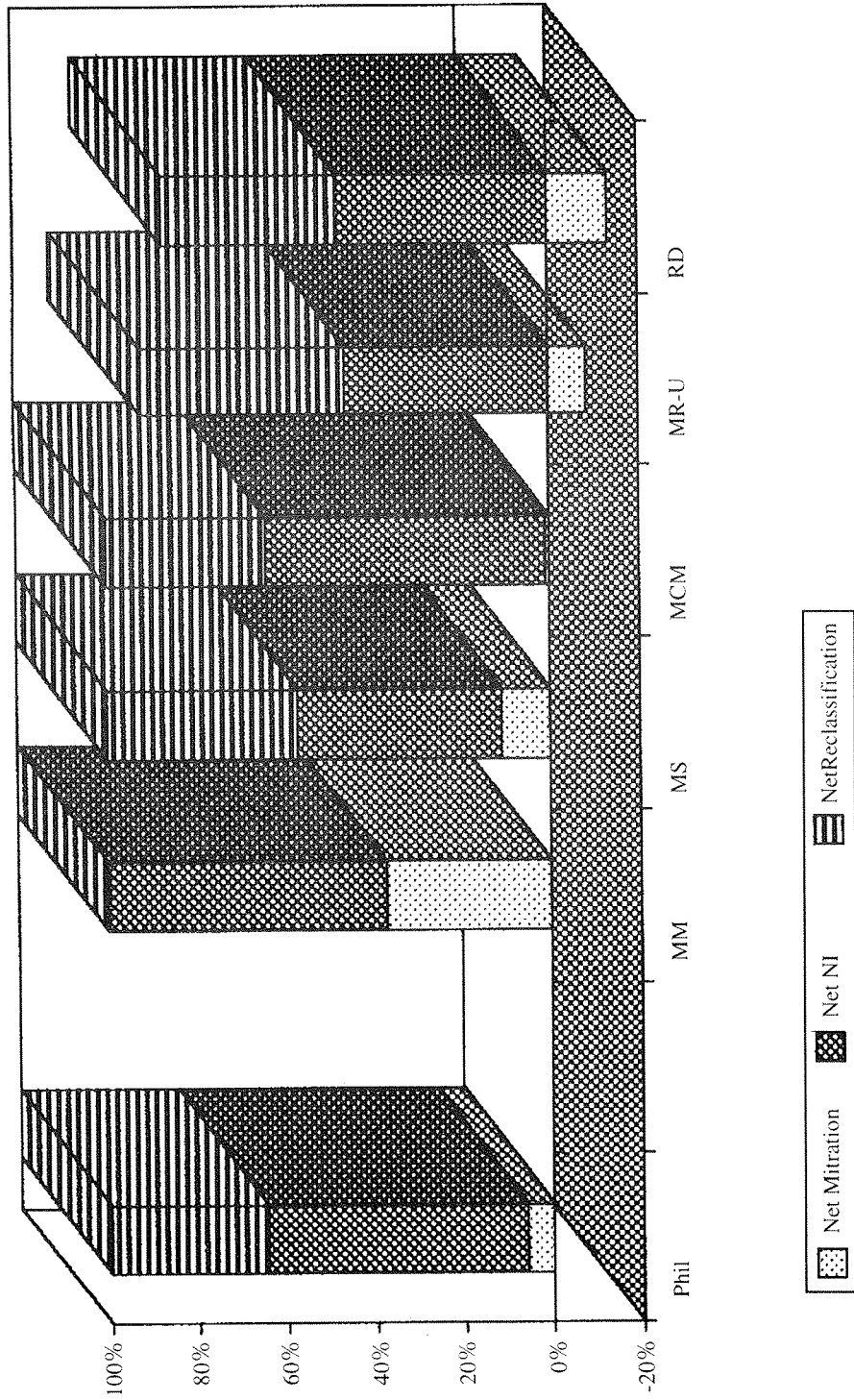
Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990"
(Forthcoming)

Table 4. Components of Urban Growth in the Philippines by Region: 1980-1990

Region	Components of Urban Growth			
	Net Migration	Natural Increase	Net Reclassification	Urban Increase
Philippines	5.92	58.56	35.52	100.00
Philippines (excluding Metro Manila)				
Metropolitan Manila	37.25	62.75	0.00	100.00
Metropolitan Shadows	11.03	45.94	43.03	100.00
Central Luzon	-2.61	52.00	50.61	100.00
Southern Tagalog	20.51	41.73	37.76	100.00
Metropolitan Counter-Magnets	0.89	63.06	36.05	100.00
Central Visayas	0.38	59.52	40.11	100.00
Southern Mindanao	1.48	67.14	31.38	100.00
Mixed Rural-Urban Regions	-10.38	59.12	51.26	100.00
Northern Mindanao	0.24	54.23	45.53	100.00
Ilocos	-19.75	58.49	61.26	100.00
Western Visayas	-13.65	63.82	49.83	100.00
Rural Dominance Regions	-18.01	64.71	53.30	100.00
Cordillera Autonomous Region	17.79	44.57	37.64	100.00
Cagayan Valley	-29.19	71.70	57.49	100.00
Bicol	-59.92	105.43	54.49	100.00
Eastern Visayas	-59.38	98.42	60.96	100.00
Western Mindanao	-6.54	45.71	60.83	100.00
Central Mindanao	10.67	45.53	43.80	100.00

Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990"
(Forthcoming)

Figure 2. Components of Urban Growth in the Philippines, by Region: 1950-1990



Source: Cabegin, Arguillas and Arguillas. "The Demographic Components of Urban Growth in the Philippines: 1980-1990" (Forthcoming)

Chapter Three

Economic Development and Urbanization in the Philippines

1 Transitions in economic development

The economy of the Philippines received financial assistance from America after the Pacific war and revived at a rapid pace in the post-war period. This enabled the Philippines to enter an economic development pattern at a relatively early stage in comparison with other South-East Asian countries. This period of post-war restoration between 1946 and 1949 led to a dynamic expansion of consumption owing to the rapid recovery of the economy, and the increase of imports at a similar rapid pace resulted in the Philippines experiencing an problem in international balance of payments as early as the beginning of the 1950s.

Using this opportunity, the government promoted a policy of import substitution and set about the establishment of industrialization. This development policy later became the model adopted by other countries in South-East Asia. However, the results of the import substitution policy failed to achieve any effectiveness in improving the international balance of payments and the Philippines was revisited by another crisis in the late '50s. The average annual growth recorded for the gross national product in the first half of the '50s (1950 - 1956) was between 6% and 7%, which was the highest level of economic growth for the entire South-East Asia region. However, from 1957 onwards in the wake of the secondary BOP (balance of payments) crisis, economic growth in the Philippines began to stagnate and a low-growth period continued.

During this period the government introduced protectionists policies for import substitute industries in the form of reinforcing foreign exchange management and adopting customs duties, etc. The result of this enabled the Philippines to establish a base in industrialization. The annual growth rate of the gross national product between 1960 and 1965 was a low 4% to 5%, but it indicated stability in growth levels.

The following summarizes the main features and problems inherent with economic growth in the Philippines for the period following the 1960s.

(1) Features of the '60s - '70s

Economic development in the 1960s concentrated on import substitution industrialization up until 1965 at the earliest, and was the period in which the founding base of the Philippines' economy was established. New development strategies were adopted with the advent of the Marcos administration in 1965.

The Marcos government embarked on the 4-Year Economic Plan in 1967 and targeted a defiant style of development by aiming at industrialization that emphasized export (export-oriented industrialization) and the diversification of industry. It was also around this period that the Marcos administration began to receive economic assistance (ODA) from Japan in order to go ahead with expansion plans, and also began to maintain the infrastructure and develop energy sources. The fact that the ODA received from Japan is related to the corruption of the Marcos government is well-known.

Having entered the 1970s, the Philippines' economy registered an annual average growth of 6.2% in GDP and a 10.3% level of growth in national capital formation. This was brought about by the establishment of firm administration by the Marcos government, the introduction of guidance policies from the IMF and World Bank, by the almost limitless amount of foreign investment from America and Japan, etc., and by advances in the flow of foreign capital amongst private corporations.

The result of this was the arrival of an age of dramatic fluctuations in the industry and trade structures of the Philippines. With regards to the trade structure, the majority of exports up until the late '60s consisted of agricultural and mining produce, but this moved across to an increase in the import of capital investment brought about by the growth of the import substitution industry, the expansion of import demand brought about by profit-sharing funds from overseas companies and growth, and by an increase in the demand for foreign investment. This led to the Philippines facing its third crisis for international balance of payments since its foundation in the late '60s.

In order to overcome this crisis, in 1970, the structural adjustment plan financed by the IMF implemented the devaluation of the peso by 43% and reductions on customs duties for

certain products. This enabled the advancement of diversity in export products in the early '70s. The share that non-traditional exports occupied from the total sum of exports increased from 18.7% in 1972 to 55.4% in 1978 and 61.2% in 1983. However, the domestic industrial structure did not change in accordance with the fluctuations in the export structure and in many cases was brought about by specific companies financed from abroad, so the development of the export-oriented industry (manufacturing industry) that has high capabilities of stimulating employment remained slow in comparison with Thailand and Malaysia.

The agricultural industry, the mainstay of industry in the Philippines, suffered a lack of production brought about by unseasonal climate and remained dull owing to a worsening of safety levels induced by the increased activities of the New People's Army set up by the communist party's military organization and anti-government sentiment on the island of Mindanao brought about by the influence of Islam.

Faced with this social unrest, president Marcos declared martial law in 1972 and implemented an enforced style of administration in order to attain development and stability under the slogan of creating a 'New Society'. This led to the unification of development administration and organization for economic development, and the National Economic Development Agency (NEDA) was established. This reinforced the system of development planning policies.

A new 4-year development plan for 1974 to 1977 was established in 1974 and outlined a new vision for the economic development of the Philippines. Emphasis was placed on agricultural development in order to reduce the differences between agriculture and industry, and between cities and rural areas.

By promoting the reform of agricultural areas and by abolishing the system of ownership for large areas of land, the modernization of agriculture, improvements in productivity, and the advance across to diversified agriculture were strengthened. Rural areas and industry made positive advances in converting across from import substitution industry to export oriented industrialization. However, these plans did not perform as well as expected owing to the effects of the oil shock and a sluggishness in the world's economy. Amidst this background, industrialization that concentrated on foreign investment advanced especially in Manila and the national capital region, which led to a rapid increase in the flow of the population into the national capital region and the rapid expansion of Manila.

The 5-year development plan for the development of the Philippines was started in 1977. This plan concentrated on eradicating the differences between each region and strengthening social development and incorporated the promotion of regional development programs and eleven industrial projects aimed at industrial development on a large scale. This plan stimulated large sums of financial assistance from the World Bank and Japanese yen credit.

(2) Features of the '80s

Having entered the 1980s, the Philippines economy was severely effected by the 2nd oil shock and by the subsequent depression of the world's economy, and economic growth began to decline. Economic growth rates for the first half of the '80s continued to flounder with 5.2% in 1980, 3.4% in 1981, 1.6% in 1982, 1.9% in 1983, -6.8% in 1984 and -3.8% in 1985. External causes also compounded this problem, and the world's economic recession in the early '80s and the expansion of budget deficit carried out on a global scale to stimulate economic development brought about a worsening in international balance of payments, and the drastic increase of accumulated debts from overseas loans.

Senator Benigno Aquino was assassinated in 1983, and a period of political upheaval began. In addition to this, the government declared a moratorium to default on the repayment of external debts (request for the extension of payment on original external debts excluding trade trusts), resulting in the Philippines being downgraded to a rescheduled nation. This economic crisis was deepened by the breakdown of financial negotiations with the IMF over foreign debts, and the Philippines economy recorded minus growth two years running between 1984 and 1985 for the first time in its history. This crisis continued up until February 1986 when president Aquino was elected, and the result of it meant that the economy of the Philippines was far behind that of other South-East Asian countries.

In order to proceed with countermeasures for the international balance of payments and to obtain assistance for its macro-economic policies, the IMF agreed to provide the Philippines with stand-by credit(the 16th) in February 1980, and the World Bank agreed to provide the first structural adjustment loan in order to support the structural adjustment program. The Philippines were duty bound to implement conditionality in order to receive this loan, and this structural adjustment continued to attract attention to the economy of the Philippines throughout the 1980s.

Aquino came into power in February 1986. The election campaign for this administration vowed to reinstate the democracy that had been lost under the Marcos administration and rebuild the Philippines' flagging economy.

President Aquino set about establishing a new economic plan immediately after her appointment, and the "Medium-term Philippine Development Plan 1987-1992" was inaugurated in December 1986. The main objectives of this plan were to ① eradicate poverty, ② create productive employment, ③ promote equality and social justice, and ④ achieve continued economic growth. In order to activate foreign investment that had laid dormant under the social instability and economic crisis of the Marcos administration, the comprehensive investment act (government ordinance No.226) was inaugurated in 1987 as an investment priority. This was followed in 1991 by the 1991 foreign investment act (republic law No.7042) which enabled

market entry by 100% foreign investment concerns without the approval of the investment committee (BOI).

On the domestic front, total reviews were made of the development strategies for industrial development priorities which were the centerpiece of large-scale projects set up during the Marcos administration, regional development was established as being the most important subject for consideration, and much emphasis was placed on the promotion of agriculture and the development on agro-based industries. The promotion of small and medium enterprises and labor intensive industry was also encouraged. And, in addition to this, the comprehensive land reform act was passed in 1987 and progress made in the field of land reform. However, The development strategies by the Aquino administration cannot be said to have been successful in the end due to a number of reasons.

The first of these was the failed coup carried out by the military immediately after the presidential nominations which ensured that political instability would continue for a longer period of time.

The second of these was a reduction in the amount of foreign investment expected at that time due to this political instability and a number of natural disasters (the eruption of Mt. Pinatubo, etc.). The World Bank and the IMF held a conference for comparative assistance nations and established an international cooperative system for providing financial assistance to rebuild economies, but the effects of this aid were not realized until later.

The third was an almost zero progress rate in the agricultural reform policies, which were supposed to be the mainstay of agriculture and agro-development, owing to opposition from the majority of regions.

The fourth of these was the fact that the infrastructure and energy development policies established by the Marcos administration failed to show any progress or expansion as the Aquino administration turned its main focus point onto the citizenry, and this led to a lack of electrical power and a situation in which it was not unusual for Manila and the national capital region, to experience power cuts for ten hours a day.

The fifth of these were the problems inherent with president Aquino's political power which brought about dissatisfaction and a deterioration of administrative institutes and a worsening of safety levels in the national capital region. Owing to this, annual economic growth under the Aquino administration entered a slump with 3.4% in 1986, 4.3% in 1987, 6.8% in 1988, 6.2% in 1989, 3.0% in 1990, and 0.6% in 1991 with an average growth rate of 3.3% for this period. At the same time, other ASEAN countries were continuing with high levels of growth, with Thailand experiencing a double-digit annual average and Indonesia and Malaysia experiencing between 7% and 8% growth, Asian Dynamism was advancing at a rapid pace, and the manufacturing structure had progressed to even higher levels. The gap between the economic slump of the

Philippines and the economies of other advancing ASEAN countries became greater and greater.

(3) Economy under the Ramos administration

President Ramos, inaugurated in June 1992, showed positive attitude for the improvement of the political instability and the rebuilding of the economy inherited from the Aquino administration. First of all, the National Unity Committee was established in order to bring about political stability, and then peace talks were started between the anti-government armed forces (communist party military organization and right-wing national militarists) and the Moro National Liberation Front (MNLF). The main subject of these talks was the active guerrilla campaigns on the island of Mindanao as the government placed much importance on attaining peace with the MNLF, which was hindering the economic development of the island. Peace was finally achieved in 1996, which was a great accomplishment for the Ramos administration.

The first year of the “Medium-term Philippine Development Plan 1993-98” targeting the rebuilding of economies was 1993.

The basic concepts of this plan were people empowerment and international competitiveness. The economic development slogan, “Philippine 2000”, was also established to aim at NIEs by the year 2000. The government also promoted active domestic and overseas investment in private corporations as a result of a series of deregulation and liberalization policies that led to the liberalization of foreign exchange. In addition to this, a number of new policies were implemented one after the other, including the foundation of a new central bank (republic law No.7653 in June '63), the new BOT law (republic law No.7718 in May '94), the liberalization of overseas bank act (republic law No.7721 in May '94), revisions to the '91 overseas investment law, and a step-by-step reduction of customs duties, etc.

Private investment from overseas began to increase as a result of this, and there was an expansion in the investments coming from not only America and Japan, but also from Hong Kong, Korea, Taiwan and other Asian countries. Also, foreign trade which mostly existed only with America and Japan up until this time began to increase with ASEAN countries and China.

Economic growth began to recover from its '92 level of 0.3% and gradually increase with 2.1% in '93, 4.3% in '94, and 5.2% in '95. As previously mentioned, the medium-term economic plan for the period between '92 and '98 was based on fundamental strategies that included, ① financial liberalization, ② liberalization of capital stock accounts for the international balance of payments, ③ the promotion of passing the management of public corporations across to the public sector, ④ structural reform of the monetary system, ⑤ full payment of debts to the central bank, ⑥ wide-ranging deregulation of foreign investment restrictions for direct investment, and, ⑦ the reduction of customs duties. These policies enabled the economy of the Philippines to actively move back to original levels, and private investment from both at home and abroad was especially lively.

2 Economic development and the urbanization of the Metropolitan Manila

The Philippines are an archipelago of more than 7,100 islands, and a central city has traditionally been established on each of the islands. Spanish rule began in the latter half of the 16th century, and ever since then Manila has been the capital city and the island of Luzon has experienced more development in comparison with the other islands. Even today, the island of Luzon overwhelms other regions with its central Manila national capital region. The island of Luzon occupied 63.2% of the entire gross national product for all regions in fiscal '95, and the Manila national capital region alone occupied 31.03% of this.

Manila and the national capital region developed at a dramatic pace, and the urbanization of the region can be related to the post-war development of the Philippines economy (following independence). This section will concentrate of the urbanization and economic development of the Manila national capital region.

(1) Brief history of Manila

When the entire Philippines came under the rule of Spain, There was no colony that could be qualified for the term 'city'. One of the tactics used by Spain in order to consolidate a central ruling system within the Philippines was to promote the spread of Christianity amongst the local people. Owing to this, a cathedral was constructed in Manila to propagate Christianity, and Manila was established as the capital city. Manila consequently became the center of Christianity and the main hub of Spain's ruling system, and was also set up as the nucleus for foreign trade as an important step towards colonialization. Ports and harbors were built to handle the trade and the area flourished as a market for commodities with the result that Manila was established as the true capital of the Philippines in both name and function by the second half of the 19th century. However, there was no sign of a rapid increase in the population at that time.

Having entered the 20th century, the suzerain states became American and America promoted both trade and the industrialization of Manila, which led to an increase in the population of this area becoming apparent. As America placed emphasis on Manila's role being the economic center of the Philippines, as opposed to it being the political and administrative center, Manila became joined with the surrounding areas and adopted a conurbation formation.

The Philippines achieved independence in 1947, and Manila was naturally selected to act as the capital city. Despite the huge damage inflicted on Manila during the war, recovery assistance from America enabled the restoration of the city to be carried out smoothly. As already mentioned in section 1, there was a positive promotion of import substitution industrialization, but this mostly advanced Manila and its surrounding areas.

This is thought to be the result of improved conditions of location and the general investment environment being restricted only to Manila and its surrounding regions. This led to an influx of people which peaked after the 1950s, and the population of Manila was recorded at 1,570,000 in 1950, 1,930,000 in 1955, and 2,460,000 in 1960. The concentration of the population in the Manila national capital region can be explained by an increase in population brought about by a lowering of mortality rates in rural areas after the 50s and the expansion of discrepancies in income between the Manila national capital region and rural areas.

Real economic development in the Philippines started in the early 1960s, and the adoption of foreign investment in the private sector brought about by administrative policies led to a rapid increase of companies and factories in the Manila national capital region. The population reached 3,960,000 in 1970, which was four times higher than the figure for 1940.

(2) Features of urbanization after the 1970s

The population of the Manila national capital region continued to surge in the 1970s, and the population transition from regional and rural areas became intense. The rate of population increase in the national capital region (NCR) between the 1970s and 1990 exceeded 4% annually, and the figure reached 5,925,000 by 1980 (note 1) and 7,948,000 by 1990 (note 1). The concentration of the population in the national capital region was a result of the 'pull' effect brought about by the economic development of the region instigated through the expansion of various political, administrative and economic functions, and the increase of poverty, social instability and the victims of volcano eruptions, typhoons and other natural disasters in rural areas compounded the difference with the Manila national capital region. Several measures were implemented in the early '70s to counter the rapid expansion and urbanization of the Manila national capital region.

The first of these was the expansion of administrative control over the national capital region. President Marcos placed the entire country under martial law in September of 1972, and with an aim at long-term dictatorship, announced the inauguration of presidential decree No.824 which established the Metro Manila Commission (MMC) in December of the same year in order to enable the overall control of safety and administration in the Manila national capital region. Although the establishment of the MMC was aimed at the comprehensive control of the administration of the Manila national capital region, it was the first step towards the creation of the metro Manila that is in existence today. Administrative reform was implemented in 1975 to centralize power in the metro Manila region, and the comprehensive control of finances for 17 autonomous bodies, including four cities and 13 towns (note 2), was placed in the hands of the chairman of the MMC. The governor of the Manila national capital region at that time, Imelda Marcos, acquired this jurisdiction.

The reasons for establishing the MMC through presidential decree No.824 were given to include ① the equal development of cities facing the problem of swiftly increasing populations and the increasing demand for public services, ② the integration of public services that make the most effective use of political resources, ③ the integration of regional administrations that had attained congruence in order to bring about the development of the Greater Manila Area, ④ the development of high-level technology that will enable the use of planning, administration and businesses related to metropolitan services, and ⑤ the eradication of various social economic problems in order to maintain national safety levels.

The second of these was to reinforce regional development and implement various development projects deemed necessary to solve the problems of the supply of the transitional population in order to create harmony amongst the people who had already moved to the Manila national capital region in the past. As previously mentioned, the difference in income between the national capital region and other regions was brought about by the import substitute industrialization only being developed around Manila, and this was a decisive factor up until the 1970s. The gross national product for each person in 1974 (note 3) showed that the figure for the national capital region was 1.5 times higher than that of the south Tagalog region, which was second, and 5.6 times higher than the Bicol region, in last place. Positive measures for regional development were initiated in 1974 with the commencement of the 4-year development plan in order to correct these regional differences. These policies included, ① improvement of agricultural production through the development of agriculture and farms, ② the thorough overhaul of the infrastructure and other social assets in regional cities and rural areas, ③ industrial dispersion and the promotion of small and medium-sized businesses in regional areas, ④ the empowerment of local autonomous bodies over regional administration and budget distribution, and ⑤ equality in educational facilities. However, the only advances observed with these targets was a widening of the differences between the national capital region and other regions. The difference recorded in per-person GDP figures in 1982 had expanded to 2.4 times against the southern Tagalog region and 5.8 times against the Bicol region.

(3) Administrative reform and decentralization of power in cities

The Manila national capital region was conceived through the establishment of the MMC, but until the restructuring of the Metro Manila Authority (MMA) in 1990, the MMC was severely criticized for the city administrations it had implemented. However, there is no doubt that it had centralized the city administration and created a system for the comprehensive management of the national capital region, and it is obvious that it served as a base for the improvement of subsequent city administration.

The problem was that the jurisdiction and function of the administration was held by the

governor of the national capital region and that the governor happened to be the wife of the president, so it is not difficult to assume that it was impossible to stand up and oppose the independence of direct centralist links - for example, interests in a centralized government. Consequently, in the end this centralized government promoted many of the businesses under its control concentrating only on the logic and profits of a certain proportion of people with power, so it cannot be said to have promoted the interests of the general populace.

In addition to this, once the Aquino administration had come into power there was a lack of strong leadership, inefficiency became pronounced, and the financial situation of the MMC worsened. In order to correct these deficiencies, president Aquino inaugurated law No.392 in 1990, decided to give wide-ranging control over the MMC to the 17 autonomous bodies of which the Manila national capital region was composed, and re-established the Metro Manila Authority (MMA) under the power of the presidency.

The reason for moving across from the MMC to the MMA was to transfer from centralized administration to decentralized administration. The overall control for MMA planning, finances and business duties was consequently held by the General Manager of the Manila national capital region, who was appointed directly by the president, and the right of policy decision-making was held by the head of each autonomous body in the 17 cities and towns that made up the Metropolitan Manila Council. The chairman of the MMA, who replaced the governor, was elected by the heads of the autonomous bodies. If the heads of these autonomous bodies had no political power or roles in the days of the MMC, it was expected that a decentralized administration would smoothly be able to harmonize the administration of the entire national capital region.

The reorganization of the MMA certainly achieved progress in certain areas by improving the efficiency of administration of the national capital region, and mechanisms were put in place and rational schemes implemented to reinforce self-dominance over and independent administration of each autonomous body. However, on the other hand, regulation of the 17 autonomous bodies became more difficult as a result of losing the comprehensive control of the MMA, and it was not long before inefficiency and a lack of consistency became more conspicuous. Interviews with this agency during a regional survey indicated that the MMA's largest drawback was that each autonomous body began to become more and more independent and differences in opinions between them became apparent, which led to a large amount of inconsistency in the administration of the city.

When president Ramos came into power there was a positive attempt to rationalize the administration, including central government, and as a part of this, an inquiry was launched to review the administration of the Manila national capital region. This resulted in the reorganization of the MMA in March 1995, and the MMDA (Metro Manila Development Authority) was established in place of the MMA.

Much importance was placed on the self-dominance of the 17 autonomous bodies in the administration of the national capital region by the MMA, and this resulted in obstacles being placed in the way of the comprehensive management of the national capital region and made it difficult to unify the various applications and projects for the national capital region. The biggest problems that this caused included public enterprises, garbage treatment and traffic control. For example, in the field of garbage collection, the amount to be collected was left up to each autonomous body, and this led to wide differences between areas. Certain bodies would create collection units within the organization and use volunteer workers for the actual collection which other bodies would charge for garbage collection. Similar things that effected every day life also occurred in traffic control with differences in handling infringements arising as each body exerted its own self-dominance. The biggest problem, however, was the fact that the responsibility and jurisdiction of the MMA was never clarified, and this caused problems in leadership and the seat of responsibility in the carrying out of city administration.

The MMDA changed the system from the heads from the cities and towns becoming chairman in rotation, as had happened with the MMA, and had the chairman appointed by the president which meant that the MMDA came under the direct control of the president. The chairman had still not been appointed as of August 1996, and it appears that the move across to this eventuality is currently in the preparation period.

However, there are many people who point out that although this system has the merit of centralized integration for city administration in the same way as the MMC, it is likely to generate similar types of problems, such as inefficiency and corruption. Owing to this the Ramos administration is currently involved in investigating a central integrated system different to the MMC, but so far no final decision has been made.

The MMDA reduced the administrative jurisdiction held by the MMA even further, is trying to limit administration of the national capital region to the problems of solid waste (garbage) and traffic control, and will next reorganize the system. It is consequently establishing a system in which the amount of rights each autonomous body has are clearly defined, as opposed to the MMC which held wide-ranging administrative jurisdiction and ran a system with centralized integration, and that will establish national organizations that will cope comprehensively with the most pressing problems of garbage disposal and traffic control.

3 Urban problems and their countermeasures

It is said that the population of the Manila national capital region exceeds 10 million in 1996. Although the national capital region consists of 17 autonomous bodies, its scale and func-

tions shows all the aspects of it being a metropolis. From the fact that the second largest city after the Manila national capital region is Davao with a population of approximately 900,000, it is no exaggeration to say that the national capital region is the center of everything and that its urbanization symbolizes the economic development of the Philippines. Furthermore, there is no doubt that the national capital region continues to expand at an extremely rapid pace. The rest of the world is now able to observe the urban problems with which the large cities in Asia are struggling. This chapter examines the problems inflicting the Manila national capital region and the measures that are being taken to counteract them, as well as introducing the urban problems occurring in Cebu, which was the subject of a regional survey.

(1) Urban problems in the Manila national capital region

With the exception of a few cases, the various problems that have arisen in the Manila national capital region as a result of urbanization are becoming more and more serious. This section will touch on the problems of safety, traffic, housing and garbage disposal.

The biggest problem is the safety of society. Levels of safety have improved greatly throughout the whole of the Philippines ever since the Ramos administration entered peace negotiations with the armed forces on the island of Mindanao and established peace in July 1996. However, the development of urbanization, the concentration of the population, the flow towards unemployment, the differences between the rich and the poor, and the formation of bands of outlaws, etc., ensure that urban crime within the Manila national capital region continues to increase. According to the Philippine Yearbook 1994, the number of reported crimes in 1993 was 96,686, which was a 7.6% decrease over 1992, but the Manila national capital region accounted for 19.7% of this total, which was a 9.4% increase in comparison with 1992.

The number of murder cases reported for the entire Philippines in 1993 stood at 7,758, which person-for-person is probably the highest rate of all nations in South East Asia. The Manila national capital region recorded 759 murder cases, which accounts for 10% of the entire country, and 3,321 robbery cases, which is 33.7% of the entire country. The number of kidnap for ransom cases targeting the wives and children of wealthy Chinese residents by organized groups has increased dramatically, and the figures for 1993 recorded three times more cases in comparison with 1989. Robbery and kidnapping cases are reported in the newspapers every day, and the people who live in the national capital region must spend much money on anti-crime measures. The robbery and kidnapping crimes carried out in the Philippines are mostly at the hands of organized gangs, and there are even indications that the police and military maintain links with these gangs. The number of criminals brought to justice is low, and this leads to more crime.

There is no doubt that crimes increase the larger a city becomes, and there is a need for

radical countermeasures to be implemented in order to improve this problem of safety.

The second problem is the problem of traffic. The recent development of motorization in the Philippines contains some remarkable aspects. The number of registered vehicles for the entire country increased 2.5-fold to 2,317,000 in 1994 over the 990,700 of 1981. This increase has been especially heavy since 1990 with an average annual rate of 11.1%. Furthermore, 958,000 were registered within the Manila national capital region in 1994, accounting for 41.3% of the figure for the entire country. However, this figure only covers the number of vehicles registered within the Manila national capital region, so the actual number of vehicles involved in the administration and economic activities within the region is probably much greater.

128,829 new vehicles were manufactured and sold in the Philippines during 1995, and of this figure 100,554, or 78.1%, were sold within the Manila national capital region. Figures such as this make it easy to comprehend the rapid increase of automobile traffic in the Manila national capital region. Owing to this, the problem of traffic jams in the national capital region is getting more serious every year, and the amount of time required to travel a certain distance is becoming longer. This problem is compounded by the fact that people are gradually moving to residences even further out in the suburbs than before, leading to an increase in the number of commuters who travel into the administrative and business sections of the city, and the traffic congestion that occurs during the rush hour is worsening on a yearly basis. The increase in transport deliveries brought about by the development of restaurants and supermarkets is also adding fuel to the fire of traffic congestion.

The major forms of transport in the Manila national capital region are buses, taxis and jeepnies, etc., but most of these are run by private companies under a licensing system. The competition for customers amongst these vehicles is so harsh that they often fail to observe traffic regulations, which not only adds to the congestion it is also said to cause traffic accidents.

Present conditions are now beginning to resemble those of Bangkok in Thailand, said to be the worst in the world, and there is a real necessity for the development of a mass transportation system as early as possible. A light railway transit system (LRT) is currently in operation, but it goes nowhere near alleviating the rapidly increasing traffic congestion.

The LRT commenced operations in May of 1985, travels 15km between the Baclaran Market in the national capital region's Pasay City to Kalookan City, and carries 30,000 passengers per day. It is an important factor in the lives of the local people as it is clean, safe, cheap and ensures arrival at the stipulated time. The government and the MMDA are in the process of submitting proposals for an extension of this line and a complete network plan as effective measures for easing the traffic congestion in the Manila national capital region.

With financial assistance from the Japanese government, a survey was started in fiscal 1996 to come up with a comprehensive master plan to combat the problems of traffic in the

Manila national capital region. The person in charge of this survey, a specialist from Japan, has indicated the following situations with regards to traffic in Manila:

- ① The scale of distribution of vehicles for the population of eight million people is still only 60% of Bangkok, so improvements to the traffic system will be sufficient to alleviate congestion.
- ② There is a complete lack of roadways in the Manila national capital region, so a necessity to create a systematic road network exists. However, the acquisition of the land required for the construction of roads will cause many problems owing to slums and squatters. There is also a need for overhead roads and complete intersection facilities, so a vast amount of authority and funding will be required to go ahead with a project of this size.
- ③ Although there is a necessity to build transport systems for large-volume transport in the future, the extension of the existing LRT will be effective in easing congestion.
- ④ It is necessary to establish smooth traffic flows through the observance of traffic rules by jeepnies and private buses, etc., and through the systematic foundation of roadways.

The third problem is the problem of processing solid waste. The rapid increase in solid waste brought about by the development of urbanization is becoming more serious. Smokey Mountain, famous throughout the world, is a symbol of the seriousness of Manila's garbage disposal problem.

However, disposal of garbage on Smokey Mountain has since been halted, it is locked, and a new garbage treatment system has been installed.

The measures implemented to control the problem of garbage in the Manila national capital region came too late, and the disorderly disposal of garbage brought about the formation of both Smokey Mountain and a gigantic slum. A serious inquiry into this problem of garbage was instigated within the establishment of the MMC, and the collection and disposal of garbage within the national capital region is proportionally implemented by the autonomous bodies and the government. However, it is said that 15% of the household garbage in 1993, which accounted for 50% of the total solid waste in the Manila national capital region, was not collected

(2) Urban problems in the city of Cebu

In addition to being the central city of the island of Cebu, the city of Cebu is also the central city of the three-region (regions VI, VII, VIII) Visaya region. The city of Cebu is currently the center of Metro Cebu, which consists of two cities (Mandave and Lapu Lapu) and seven towns. This section outlines the problems faced by the residents of Cebu.

The population of Cebu stood at 604,000 people in 1990 according to the census, but now exceeds 800,000. The population increased by 116,000 between 1980 and 1990, an increase of approximately 10,000 people per year, but this grew rapidly after 1990. One of the features of

Cebu is the fact that many commuters and students travel into the city from surrounding areas, so the day-time population exceeds one million and has been estimated at 1.3 million. The reason for this is owing to the fact that not only are government offices, corporations and shops, etc., concentrated within the city, there are also many ports, factories and educational facilities, such as the Philippines National University and the University of San Carlos.

Another reason is the fact that the islands of Cebu and Lapu Lapu are regarded as the mecca for sightseeing in the Philippines, and the effect that the large influx of tourists from Japan and other Asian countries to these marine resorts have on the local population cannot be ignored.

The city of Cebu has a long and thin topography surrounded by the ocean and mountains and is not unlike the geographical formation of Japan's city of Kobe. Houses, businesses and government offices bustle for space in the center of the city, and the level of density is already quite severe. Slums and squatters gather in the areas surrounding the rivers, ports and coastal areas, and the residential areas are gradually spreading out to the surrounding hills, leading to a greater area for heavy density.

Metro Cebu is not equipped with an integrated organization like the Manila national capital region, and despite the fact that regulatory functions exist between each local autonomous body, it appears to be "... difficult to reach agreement owing to a lack of leadership, and there is very little functionalism as a metro administration" (note 5).

The following is a summary of the problems facing the city of Cebu and the measures employed to solve them obtained from the Planning and Development Coordinator of Cebu.

- ① The increase in population is being caused by the rapid influx of immigrants from other islands in recent years and by the expansion of squatters. The immigrants mostly come from the Visaya region, although there is an increase in the number of immigrants coming from Mindanao and other islands, and whereas most immigrants used to stay in Cebu temporarily on their way to the Manila national capital region, a heightening of labor demand on the island of Cebu in recent years is now tipping the balance across to long-term residency.

In order to cope with this increasing population, the city has submitted proposals for the planning of satellite towns in the suburbs and is currently in the process of designing a master plan for the comprehensive use of land in the city area. As part of this plan a 15 hectare area of land has been prepared for the relocation of the people who live in slums and the squatters.

- ② The problem of traffic is also gradually gaining momentum. Delays in setting up a road network in the city continues to contribute to the seriousness of the traffic jams that occur in specific areas and within specific time bands, and as there is only one bridge across to

the island of Mactan, it is necessary to expend at least one hour in order to pass through the jams that arise during the morning and evening rush hours. In order to improve these conditions, the city is currently planning certain schemes, such as expanding the trunk road network within the city, constructing a second bridge across to Mactan Island, the creation of a ring-road that surrounds nearby hills, and the construction of a coastal highway from reclaimed land.

However, the city of Cebu is intending to carry out these major projects mostly with private investment (BOT, etc.) and without requesting ODA.

- ③ Environmental problems, such as solid waste disposal and sewage treatment, are becoming serious. A city dump is being prepared on land targeted for reclamation on the coast of the city for solid waste disposal and land reclamation is gradually making progress, but all garbage is currently mixed together and disposed of in coastal waters, leading to the worry of toxic substances penetrating the sea. Although the city will continue with this method of disposal for the time being, the treatment plants are being surrounded by barriers (concrete, etc.) to halt the flow of toxic substances and sea pollution. However, a visit to these sites shows that most are leaking.

The city possesses one sewage treatment plant which can handle only 15% to 20% of sewage, meaning that most is finally passed out to the sea untreated. As the sea has remained shallow for the past few years, it is thought that pollution will increase at a rapid pace. The run-off is spreading pollution as far as Mactan Island, which was developed as a marine resort, and it will not be long before the tourist are able to observe this.

The comprehensive land usage plan that the city is currently promoting has raised expectations in a number of areas, including environmental problems, and it is expected to improve all of the city's functions and environmental conservation by separating the city into the business district, the industrial district and the residential district. A certain part of a huge business part, which includes office buildings, green belts and entertainment facilities, has already been completed, and this style of harmonious city planning is attracting attention.

- ④ Although there are no current problems related to the supply of electricity or with communications, the problem of a water supply is becoming serious. The water supply on the island of Cebu is already insufficient and water is being supplied from other islands, but the problem is expected to get even worse owing to the increase in the population, as the city has pointed out. There is a plan to lay water pipes from other islands and supply water this way, but the cost is extremely high and the technology required difficult.
- ⑤ Metro Cebu is considering the promotion of industrialization. In addition to the location of an industrial estate on a certain area of Mactan Island, a land reclamation scheme is under

construction in the Cebu area in the hope that it will attract companies financed from overseas in the export-oriented field of business. The Cebu Investment Promotion Center was established to promote this export promotion zone, and positive activities are currently being carried out to attract foreign companies. However, the predominance of this area is recognized but there are no companies who have yet expressed a desire to move here, so it is thought that there is a necessity for the establishment of a favorable investment environment.

Note 1: According to the 1980 and 1990 census.

Note 2: Four cities (Manila, Quezon, Pasay, Kalookan)

13 towns (Las Pinas, Malabon, Makati, Mandaluyong, Muntinlupa, Marikina, Navotas, Paranaque, Pasig, Pateros, San Juan, Taguig, Valenzuela)

Note 3: Philippine Statistical Year Book, 1995

Note 4: Urban Measures and Social Investment in Developing Countries issued by Institute of Developing Economies in March 1996.

Note 5: Stated by Dr.W.Fliieger of the St.Carlos University during an interview.

Table 1. GDP growth rates of four ASEAN countries

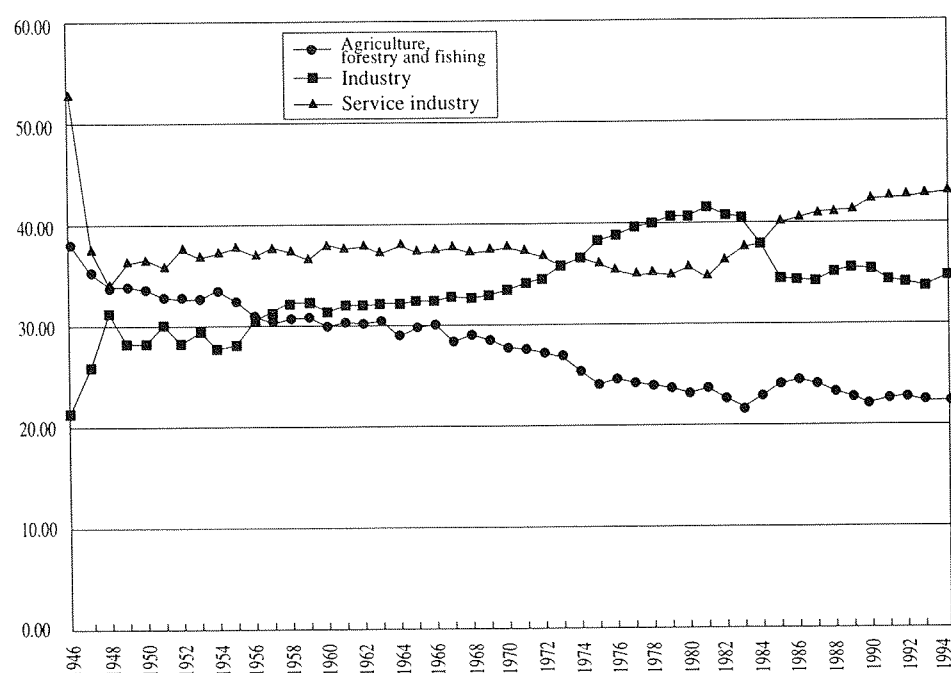
	1970	1971	1972	1973	1974	1975	1976	1977	1978
Indonesia	7.5	7.0	9.4	11.3	7.6	5.0	6.9	8.8	7.8
Philippines	4.6	4.9	4.8	9.2	5.0	6.4	8.0	6.2	5.5
Malaysia		7.1	9.4	11.7	8.3	0.8	11.6	7.8	6.7
Thailand	10.4	5.0	4.1	9.9	4.3	4.9	9.4	9.9	10.4

	1979	1980	1981	1982	1983	1984	1985	1986	1987
Indonesia	6.3	9.9	7.9	2.2	4.2	7.0	2.5	5.9	4.9
Philippines	6.3	5.2	2.8	3.6	1.9	-7.3	-7.3	3.4	4.3
Malaysia	9.3	7.4	6.9	5.9	6.3	7.8	-1.0	1.0	5.4
Thailand	5.3	4.8	5.9	5.4	5.6	5.8	4.8	5.5	9.5

	1988	1989	1990	1991	1992	1993	1994
Indonesia	5.8	7.5	7.2	7.0	6.5	6.5	7.3
Philippines	6.8	6.2	3.0	-0.6	0.3	2.1	4.3
Malaysia	8.9	9.2	9.7	8.7	7.8	8.3	8.7
Thailand	13.3	12.2	11.6	8.1	7.6	n.a	n.a

Source: International Financial Statistics, IMF, 1995 calculations

Figure 1. GDP share by industry in the Philippines



Source: National Statistical Coordination Board (data)

Table 2. GDP composition transition by industry (Unit : million pesos, %)

Industry	1950	Percentage	1955	Percentage	1960	Percentage	1965	Percentage
Agriculture	39,260	34.45%	55,253	32.90%	63,594	29.97%	81,809	29.88%
Industry	32,756	28.74%	48,401	28.82%	66,571	31.37%	87,973	32.13%
Mining	1,025	0.90%	1,728	1.54%	2,437	1.70%	2,727	1.94%
Manufacturing	20,587	18.07%	36,468	21.71%	52,725	24.85%	67,011	24.48%
Construction	9,678	8.37%	8,468	4.86%	9,157	3.71%	15,692	7.82%
Electronics, gas, water	1,466	29.59%	1,737	30.28%	2,252	24.67%	2,543	21.38%
Service industry	41,942	36.80%	64,298	38.28%	82,046	38.66%	103,987	37.98%
GDP	113,958	100.00%	167,952	100.00%	212,211	100.00%	273,769	100.00%

Industry	1970	Percentage	1975	Percentage	1980	Percentage	1985	Percentage
Agriculture	96,701	28.18%	112,090	24.68%	143,295	23.50%	140,554	24.58%
Industry	115,661	33.70%	174,352	38.38%	247,059	40.52%	200,548	35.07%
Mining	4,955	1.44%	5,736	1.26%	9,128	1.50%	11,893	2.08%
Manufacturing	92,903	27.07%	128,638	28.32%	168,292	27.60%	143,851	25.15%
Construction	13,938	4.06%	31,741	6.99%	57,250	9.39%	29,037	5.08%
Electronics, gas, water	3,865	1.13%	8,237	1.81%	12,389	2.03%	15,767	2.76%
Service industry	130,800	38.12%	167,818	36.94%	219,414	35.98%	230,781	40.35%
GDP	343,162	100.00%	454,260	100.00%	609,768	100.00%	571,883	100.00%

Industry	1990	Percentage	1991	Percentage	1992	Percentage	1993	Percentage
Agriculture	160,734	22.30%	162,937	22.74%	163,571	22.75%	167,053	22.75%
Industry	255,548	35.46%	248,718	34.71%	247,384	34.41%	251,459	34.24%
Mining	11,091	1.54%	10,770	1.50%	11,495	1.60%	11,571	1.58%
Manufacturing	183,925	25.52%	183,111	25.56%	179,947	25.03%	181,289	24.69%
Construction	41,858	5.81%	35,285	4.92%	36,261	5.04%	38,344	5.22%
Electronics, gas, water	18,674	2.59%	19,552	2.73%	19,681	2.74%	20,255	2.76%
Service industry	304,408	42.24%	304,867	42.53%	307,986	42.84%	315,798	43.01%
GDP	720,690	100.00%	716,522	100.00%	718,941	100.00%	734,310	100.00%

Industry	1994	Percentage
Agriculture	171,043	22.34%
Industry	266,820	34.84%
Mining	10,763	1.41%
Manufacturing	190,489	24.88%
Construction	42,507	5.55%
Electronics, gas, water	23,061	3.01%
Service industry	327,886	42.82%
GDP	765,749	100.00%

Note: Based on actual figures

Source: National Statistical Coordination Board

Table 3. Employment figures by industry

	Ratio of composition (%)					
	1970	1975	1980	1985	1993	1993
Agriculture, forestry and fishing	53.7	53.5	51.4	49	44.9	45.7
Industry	16.4	15.2	15.6	14.1	15.5	15.7
Mining	0.4	0.4	0.6	0.6	0.6	0.6
Manufacturing	11.9	11.4	11	9.7	10.1	10.1
Construction	3.8	3.1	3.6	3.4	4.4	4.6
Electronics, gas, water	0.3	0.3	0.4	0.4	0.4	0.4
Service industry	28.2	31	32.9	36.8	39.6	38.7
Wholesale, retail	7.4	11.2	10.1	13.2	14.2	13.9
Social services	16.4	16.4	16.4	17.2	18.5	17.4
Others	4.4	3.4	6.4	6.4	6.9	7.4
Others	1.6	0.3	0		0.1	0.1
	99.9	100	99.9	99.9	100.1	100.2

Note: Total figures are based on the original text

Source: Esguerra (1995)

Table 5. Gross regional domestic product

(Unit : 100 peso)

Region/Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PHILIPPINES	630,645	653,469	665,718	616,963	571,884	591,423	616,926	658,583	699,449	720,691	716,523	718,942	734,155	765,692
NCR Metro Manila	184,222	191,923	201,703	180,909	164,246	169,358	180,609	197,266	214,663	221,753	220,972	215,465	219,055	227,634
CAR Cordillera							11,342	12,195	13,252	13,549	14,042	13,591	13,859	14,919
I. Ilocos Region	25,022	25,927	25,987	24,949	25,033	26,947	18,294	19,238	20,435	21,869	21,579	20,344	20,624	22,121
II. Cagayan Valley	18,706	18,994	18,736	17,128	15,309	15,668	13,087	13,994	14,725	15,548	14,714	13,974	14,167	15,107
III. Central Luzon	58,338	61,298	61,196	57,044	53,774	54,853	57,459	61,831	64,158	68,250	66,309	70,736	71,822	74,476
IV. Southern Tagalog	93,137	96,776	95,834	89,958	82,615	86,473	90,978	98,333	104,972	109,509	109,844	113,545	115,936	121,717
V. Bicol Region	19,513	20,728	21,340	20,496	19,366	19,530	18,913	20,103	21,041	21,687	21,734	21,902	22,503	23,353
VI. Western Visayas	48,279	50,758	50,911	46,265	42,418	43,554	44,858	46,699	50,113	50,747	50,451	53,331	54,909	57,170
VII. Central Visayas	39,121	40,816	42,183	39,838	35,754	37,680	39,662	43,107	45,813	47,193	46,971	47,086	49,998	50,294
VIII. Eastern Visayas	15,452	16,136	16,624	17,548	16,218	16,057	16,175	17,297	17,373	17,322	17,396	17,088	17,554	18,388
IX. Western Mindanao	20,122	20,413	20,896	19,969	18,561	19,163	19,191	19,569	20,214	21,132	20,773	21,186	22,078	22,784
X. Northern Mindanao	37,042	37,163	37,252	33,419	32,412	33,239	34,381	35,603	37,313	37,099	37,104	37,345	38,285	40,070
XI. Southern Mindanao	47,833	48,086	47,959	45,755	43,727	45,317	48,383	48,691	49,970	50,074	50,155	48,953	50,167	51,590
XII. Central Mindanao	23,858	24,451	25,097	23,686	22,452	23,582	23,592	24,657	25,407	24,959	24,477	24,396	25,199	26,067

Source: "Philippine Statistical Yearbook 1995" NSCB

Table 5. Number of motor vehicles registered by type, by fuel used, and by region 1981 to 1994

Year	Total		Cars		Utility Vehicles		Trucks		Buses		Motorcycles/Tricycles		Trailers
	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	
1981	773,049	217,693	308,096	9,989	243,295	121,411	35,584	67,556	5,365	12,456	180,709	6,281	15,288
1982	805,176	264,858	329,752	12,297	233,169	152,141	28,690	78,184	3,207	14,151	210,358	8,085	17,146
1983	861,223	322,699	351,296	15,706	230,727	197,198	23,050	87,806	1,939	14,775	254,211	7,214	16,881
1984	826,305	321,821	345,055	15,667	216,454	200,267	18,783	83,288	1,285	13,994	244,728	8,605	17,431
1985	794,368	311,075	335,267	12,682	206,341	199,489	14,934	79,004	829	13,907	236,997	5,993	14,729
1986	852,345	319,714	344,197	12,491	211,888	204,666	13,856	81,362	1,958	13,016	280,446	8,179	13,773
1987	829,850	333,165	346,573	12,192	226,567	215,190	11,719	86,033	1,478	13,695	243,513	6,055	13,738
1988	905,864	349,893	364,355	12,291	248,612	226,487	14,899	93,128	797	14,286	277,201	3,701	14,726
1989	1,021,703	394,007	398,593	14,405	280,949	255,456	16,111	102,271	800	16,150	325,250	5,725	15,754
1990	1,152,785	449,112	437,079	17,475	323,598	292,005	17,446	113,527	1,050	17,291	373,612	8,814	18,345
1991	1,197,282	499,127	436,775	19,831	338,177	332,671	15,692	122,446	885	19,805	405,753	4,374	18,957
1992	1,286,763	572,503	457,397	26,225	360,032	384,158	13,582	133,107	1,116	24,711	454,636	4,302	20,297
1993	1,448,634	654,312	500,908	30,332	390,550	443,618	13,930	151,350	665	23,938	542,581	5,074	22,169
1994	1,558,623	728,498	540,442	32,324	415,877	496,798	14,814	164,979	671	26,924	616,819	7,473	24,348
NCR	657,679	301,826	369,928	27,086	177,907	211,278	7,713	54,347	167	8,409	101,964	706	14,045
CAR	14,394	12,816	5,870	400	4,691	9,929	62	2,090	12	339	3,759	58	47
Region 1	77,845	28,782	10,173	89	15,155	19,889	343	6,758	2	2,046	52,172	0	653
Region 2	41,048	20,386	3,461	70	6,530	12,134	53	7,034	1	1,141	31,003	7	863
Region 3	162,176	85,792	36,312	643	53,190	64,484	488	17,424	65	3,192	72,121	49	3,171
Region 4	170,626	98,508	33,654	533	59,530	80,102	305	13,900	27	3,532	77,110	441	1,179
Region 5	37,689	15,622	4,394	105	6,471	10,422	77	3,890	4	1,187	26,743	18	122
Region 6	79,167	41,768	16,899	1,276	19,775	23,365	2,689	14,647	34	1,462	39,770	1,018	924
Region 7	127,774	36,741	27,935	991	28,470	16,673	1,082	17,829	229	1,229	70,058	19	1,429
Region 8	27,256	9,316	1,849	46	5,405	5,224	249	3,145	2	845	19,751	56	190
Region 9	41,535	8,800	2,276	22	9,196	4,652	205	3,395	12	721	29,846	10	115
Region 10	44,730	19,442	7,052	53	9,622	11,240	188	6,445	47	1,203	27,821	501	373
Region 11	84,197	35,159	17,142	815	14,606	20,399	1,126	11,390	61	1,336	51,262	1,219	1,113
Region 12	22,507	13,540	3,497	195	5,329	7,007	234	2,685	8	282	13,439	3,371	124

Source: "Philippine Statistical Yearbook 1995" NSCB Note : Cars : light van, jeep, wagon, etc.

Chapter Four

Urbanization in the Philippine Population

1 Population conditions in the Philippines

The fluctuations that can be seen in the scale, structure and distribution of the country's population is caused by birth, death and migration. This chapter concentrates on the birth rate and death rates, and introduces the basic features of population phenomena in the Philippines.

Table 1 provided below indicates the transition of the Philippines' population scale. As can be seen from this table, the population in 1960 did not exceed 27 million. However, increases of between 2.5% and 2.7% were recorded on an annual basis following this, with the result that the population reached 60 million in 1990. If the increases in population continue at a similar rate, it is clear that the population will double itself within a mere 28 years with an increase of only 2.5% annually ($= 70 / 2.5$). This rate of increase is relatively high within south-east Asian countries.

What is the cause of this rapid increase in population in the Philippines? This section considers this question with the use of the Theory of demographic transition. The Theory of demographic transition is a principle based on scientific population experiences obtained from the historical experiences of west European countries. This theory notes that the economic development of society in a country leads to a transition from a high-birth/high-death rate to a low-birth/low death rate, but that this transition can be categorized into four periods; the high-birth/

high death period (phase 1), the rapid reduction of the death rate (phase 2), the rapid reduction of the birth rate (phase 3), and the low-birth/low-death rate period (phase 4). (See fig.1.)

By following the assumed route of the demographic transition theory, it shows that fluctuations begin to appear in the birth rate and death rate of a country, but the natural increase of the difference between both (= birth rate - death rate) maintains a low standard in phase 1, begins to rise in phase 2 until it finally reaches a high standard, begins to fall again in phase 3, and achieves a low standard in phase 4. (See fig.1.)

The theory of demographic transition is one of the most reliable theory for the hypothesis of populations, and it has been used to explain fluctuations in populations for many different countries. We now go onto discover if the transition in birth rates and death rates in the Philippines follow the route of assumption for this hypothesis. Table 2 and fig.2 provide details on this.¹⁾ As is made clear from these statistics, the standards for natural increases have heightened and the population has increased owing to the fact that there has been a definite decrease in the death rate, but the decrease in birth rates has not occurred at the same rapid pace. Judging from the figures available in figs.1 and 2, the population for the Philippines has just entered phase three of demographic transition.

However, there is one point relating to the demographic transition of the Philippines that must be noted. As previously mentioned, it is thought that demographic transition occurs as a direct result of social economic development in general (demographic transition by internal elements). However, there are some people who follow the school of thought that maintains that demographic transition for developing countries is caused by the effective introduction of medical technology and medicines from developed countries, and by the implementation of family planning programs (demographic transition by external elements).

It is said that the Philippines is no exception to this rule, and that the reduction of death rates is related to the effective introduction of medical technology and medicine.²⁾ It is also thought that it is possible to reduce the birth rate by implementing family planning programs. As is indicated in table 3, a rapid increase in family planning measures were implemented in the Philippines between 1968 and 1978, and this period also coincided with a decrease in birth rates. It is also thought that the slowdown of family planning implementation rates after 1978 was a result of the birth rates holding relatively high level.

As can be understood from the above argument, the population increase for the Philippines can be applied to the theory of demographic transition. Having said that, it is also important to consider the regional discrepancies observed in birth rates and death rates in order to fully understand the population phenomena of the Philippines.

Table 4 provides the total characteristics of the birth rate by urban area and by rural area, the rates of family planning implementation, and the rates for infant mortality.³⁾ As is clear from

this table, the implementation for family planning programs are higher for urban area in comparison with rural areas, so the birth rate in rural areas is consequently higher than in urban area. One of the reasons for this is, as explained by the child survival hypothesis, as the death rate in rural areas is higher than urban area, it is necessary for more children to be born in order to cover the deficit. The truth of this is displayed in the fact that the birth rate in rural areas is more active than in urban area, so population increases are a natural progression of this.

2 Population migration trends and urbanization

Given the above-mentioned characteristics, the results of a population census in the Philippines in 1990 provided the regional distribution data for table 5 below. In other words, the Philippines are divided into fourteen regions, and 51% of the population reside in the national capital region, the metropolitan shadow region and the metropolitan counter magnet region. Observations of population density also show an overwhelming 12,497.5 people in the metropolitan area in comparison with other regions. These statistics alone make it easy to understand the shift towards the urbanization of the Philippines' population.

By reading the trends of the urbanization of the Philippines' population it is possible to note that the percentage of the entire population which resided in urban area in 1990 reached 48.7% from less than 31.8% in 1970, and that the 68.2% of the entire population that resided in rural area was reduced to 51.3% (see table 6).

The main reason for these fluctuations in population is owing to migration between regions. So, in what direction is the population of the Philippines migrating? The migration rates by region are provided in table 7. These figures indicate, (1) that the migration rates to the national capital region and metropolitan shadow regions is increasing (influx), and (2) that the population of rural districts is decreasing (outflow). In other words, the migration of the Philippines' population is being re-distributed from rural area to urban area.

So, what is the cause of this population migration? According to an established theory in the study of populations, the major cause is triggered by the multiplication of the 'push' factors in rural areas and the 'pull' factors in urban areas. In other words, there are forces in action that push people away from rural areas owing to high population pressure, lack of employment, low income and poverty is in action, and pull people into urban areas owing to the labor demand in the field of industry, high levels of income and high standards of living, and this leads to the occurrence of migration between rural areas and urban areas and gives birth to the problem of over-urbanization (see fig.3).

There is a strong reason to believe this argument. As previously mentioned, the birth rate in

rural area is higher than that of urban areas (see table 4). Although poverty has been gradually decreased for the entire country, the percentage of poverty in rural areas has already overtaken the urban area (see table 8). And the unemployment rate becomes higher the more urbanized the area and lower the more rural, and it is not an exaggeration to say that this indicates that Agricultural Sector absorbs excessive laborer as a disguised employee (see table 9). If a judgment is to be made based on these statistics, then it is clear that the 'push' factors are at work in rural areas.

However, if this point of view is turned towards the 'pull' factors of the urban area, a large discrepancy arises. As already observed in table 6, the urbanization of the Philippines developed steadily between 1970 and 1990. However, the economy of the Philippines began to flounder in the late '70s and the 'pull' factors took a dramatic increase for labor demand in the field of industry. According to research, a large proportion of the surplus labor force that flowed into urban area from rural areas were absorbed by tertiary industries as un-skilled service laborers.⁵⁾

Going by this argument, it appears that the urbanization of the Philippines in recent years has developed because of the dramatic effects of the 'push' factors from rural areas despite the fact that the 'pull' factors in urban area has been insufficient. To express the situation more explicitly, urbanization in the Philippines in recent years can be said to be 'Urbanization without Industrialization (economic growth)'.

3 The occurrence of metropolitan problems and the future of urbanization

The large-scale migration of people from rural areas to the urban area is creating large problems that branch off into several complex directions. This section outlines some of these problems.

The first of these problems is the distortion of the age structures in regional populations. It is recognized in the study of populations that a large proportion of migrants are young people with health, talent and ambition. The Philippines are no exception to this rule, and a comparison of age groups indicates that a large percentage of migrants are young adult.⁶⁾ The result of this means that the people remaining in rural areas are mostly of the young population (0 to 14 years old) and aged population (over 65 years old), and the people that collect in urban areas are of the adult population (15 - 64 years old).

The problems that arise with this are indicated in table 10. The young population and aged population are dependent on the adult population. It is possible to discover the burden that the young population and elderly population place on the adult population by calculating the young dependency ratio ($= [\text{young population} / \text{adult population}] \times 100$) and the aged population index ($= [\text{aged population} / \text{adult population}] \times 100$), and then adding these totals ($= \text{young population}$

index + aged population index) to acquire the age dependency ratio.

The results of the calculations indicated in table 10 shows that the relatively small adult population in rural areas from which the adult population has flowed during migration to the cities must support the relatively large young population and aged population, so the dependency ratio is high. On the other hand, the dependency ratio for urban area into which the adult population has flowed is low. This leads to an increase in the population pressure in rural areas and a decrease in the activeness of rural society.

The flow of the adult population into metropolitan areas also gives rise to a problem completely different to that affecting rural areas. As already mentioned, despite the fact that there is insufficient labor demand in the field of industry, a large number of adults continue to flow into urban areas and the problem of unemployment is growing worse obviously. The result of this is that the unemployment rates for urban areas is comparatively high in relation to other regions (see table 9). The majority of this number become floating population, leading to the expansion of slums, and the expansion of these slums then leads to a growing problem of poverty within cities, a deterioration of safety levels, and various problems related to public sanitation. It also brings about a variety of problems, such as lack of housing, lack of public facilities (education and medical facilities), deteriorating traffic problems, garbage disposal problems and badly-maintained sewage systems, owing to this influx of people exceeding the capabilities of the cities to accept them.

Furthermore, another troublesome factor is that establishing policies to cope with these problems simply makes them worse. The reason for this is that the solving of housing and public facility problems makes the city appear more attractive, increasing the flow of even more people and worsening the issue.

So, what route should the urbanization of the Philippines follow in the future? Table 11 indicates the result of an urbanization forecast for the Philippines carried out by the Population Division of the United Nations. As is made clear in this table, the urbanization of the Philippines is expected to continue at a rapid pace, and it has been forecast that more than 60% of the population will be concentrated in urban areas by the year 2025.

According to historical experiences for mankind, it seems natural that urbanization goes hand-in-hand with development or economic growth. So, what is the relationship between economic development and urbanization in the Philippines? This problem has been considered by analyzing a simulation of the combination of a population model and a econometric model.⁷⁾

Table 12 shows labor supply estimated with the population model and labor demand estimated with the econometric model. It is clear from a comparison of both estimation results that by the year 2015 labor supply will overtake labor demand. In other words, it is thought that the situation of excessive labor supply will continue into the future. Furthermore, another point that

demands attention but is not revealed within the table is the fact that the econometric model indicates that the Philippines' economy will experience a strong 8% growth at this point in time. The fact that such a high rate of economic growth can be attained despite excessive labor supply indicates that the population increase in the Philippines is too high.

What must be remembered here is that recent social conditions within the Philippines has lead to the rapid development of urbanization as a result of the effect of the high birth rate, population pressure, poverty and other 'push' factors in rural areas despite the fact that the 'pull' factors in metropolitan areas is not great. If success is not achieved in restraining the birth rate in rural areas, then the Philippines is sure to face severe urban problems as a result of the rapid increase in future urbanization.

These are the serious problems that society in the Philippines faces today.

Conclusion

The previous sections have considered population increases, population migration and urbanization in the Philippines. Judging from the result of this analysis, it is thought that urbanization in the Philippines is greatly affected by the 'push' factor in rural areas. In order to cope with these problems, it is thought that there is a strong necessity to improve population dependency in rural areas through the promotion of integrated development and expanded health preservation programs for mothers and infants and family planning programs.

[Footnotes]

1. Birth rates and death rates as used in these tables and charts represent crude birth rates and crude death rates relating to birth and deaths per 1,000 people.
2. K.Davis, "The Amazing Decline of Mortality in Underdevelopment Area," *American Economic Review*, Vol.46, No.2 (May.1956), pp.305-318.
Corazon M. Rayamund & Imerda Z. Ferantal, "States of Women and Fertility; A Report on the Intensiv Study of Communities in the Philippines," mimeo.
3. Total Fertility Rates represent the number of children each women will bear under the condition that there is no change to current birth rate patterns.
4. Raymundo, Corazon M. and et.al., *Population Mobility and Developmet Issues*, Demographic Research and Development Foundation, 1988.

5. United Nations, Urbanization and Socio-Economic Development in Asia and the Pacific, 1993.
6. National Statistical Office, 1994 Philippines Yearbook.
United Nations, Urbanization and Socio-Economic Development in Asia and the Pacific, 1993.
7. This simulation was implemented in accordance with the following method. First of all, the future labor supply was estimated with the use of the convenient cohort = component method against population estimates as is indicated in the following three equations. The three assumptions made for population estimates were (1) total fertility rates would decrease from 3.9 in 1990 to 2.1 in 2025, (2) life expectancy would increase from 63.6 for men and 63.5 for women in 1990 to 74.0 for men and 77.5 for women in 2025, and (3) labour force participation rates will be maintained at the 1990 standard.

$$P(x+t,t+5) = P(x,t) \cdot s(x,t+2.5) \quad (1)$$

$$TB = \sum [\{ 0.5 \cdot (PF(x,t+5) + PF(x,t)) \cdot ASFR(x,t+2.5) \} \cdot 5] \quad (2)$$

$$EAPt = \sum P(x,t) \cdot R \quad (3)$$

The meanings of the symbols in the equations are as follows. P: male and female population by age, x: age group, t: years, s: survival rate, TB: total Fertility rate, PF: female population by age, ASFR: Age Specific Fertility Rate, R: Laborer Force Participation rate, EPA: number of laborers. A econometric model was Keynesian type model with the following six equations, and future labor demand was estimated by this model. The meanings of the symbols in the equations are as follows. C: consumption, I: investment, Iz: stock investment, G: government consumption, Y: Gross Domestic Product, X: exports, M: imports, L: labor demand, D: dummy variable, t: year.

The inequality coefficient calculated revealed a favorable result with C = 0.015, M = 0.031, I = 0.045, Y = 0.011, G = 0.020 and L = 0.045. This means that the econometric model had adequate explanatory ability.

$$C = - 8.3354 + 0.1649 \cdot Y + 0.8161 \cdot C_{t-1} - 26.6186 \cdot D \quad (1)$$

(1.9408) (7.9339) (-4.2272)

R² = 0.9875 D · W = 1.1125

$$I = -4.5153 + 0.0421 \cdot Y + 0.9296 \cdot I_{t-1} - 54.9502 \cdot D \quad (2)$$

(1.4799) (10.8579) (-8.7437)

R2=0.9519 D·W=1.3743

$$G = 10.1860 + 0.0232 \cdot Y + 0.6170 \cdot G_{t-1} - 5.0321 \cdot D \quad (3)$$

(2.2338) (3.9100) (-4.9111)

R2=0.9075 D·W=1.6065

$$M = -64.3459 + 0.1584 \cdot Y + 0.8827 \cdot M_{t-1} - 36.8321 \cdot D \quad (4)$$

(2.8303) (9.7158) (-8.0804)

R2=0.9842 D·W=1.4262

$$Y = C + I + I_z + G + (X - M) \quad (5)$$

$$L = 2164.8300 + 0.8452 \cdot Y + 0.8903 \cdot L_{t-1} - 861.8 \cdot D \quad (6)$$

(0.2647) (10.6453) (-1.7031)

R2=0.9761 D·W=2.3065

Table 1. Population scale and population increase

Year	United Nations estimates		Population census
	Total population (×1000)	Rate of increase (%)	
1950	20,988	—	
1955	23,913	2.61	
1960	27,561	2.84	27,088
1965	32,030	3.01	
1970	37,540	3.17	36,684
1975	42,565	2.51	42,071
1980	48,317	2.53	48,098
1985	55,121	2.64	
1990	62,413	2.49	60,703

Source : United Nations, World Population Prospects 1990.
National Statistical Office (Philippines), 1990 Census of Population Statistics.

Table 2. Birth rates, death rates and natural increase rate

(Unit: %)

Year	United Nations estimates			Various surveys in the Philippines			Year
	Crude birth rate	Crude death rate	Natural increase rate	Crude birth rate	Crude death rate	Natural increase rate	
1950-1955	49.3	19.5	29.8				
1955-1960	47.4	16.1	31.3				
1960-1965	43.6	13.1	30.5				
1965-1970	40.2	10.7	29.5				
1970-1975	36.9	10.5	26.4	39.0	10.0	29.0	1970
1975-1980	36.4	9.1	27.3				
1980-1985	35.6	8.5	27.1	36.0	9.0	27.0	1980
1985-1990	34.7	7.7	27.0				
1990-1995	30.4	7.1	23.3	29.0	7.0	22.0	1990

Source : United Nations, World Population Prospects 1990.
National Statistical Office, Trends in Fertility, Family Planning, and Child Mortality in the Philippine., February 1995.

Table 3. Contraceptive Prevalence Rate

(Unit: %)

Year	1968	1973	1978	1983	1986	1988	1993 ⁴⁾
All methods	16	24	37	32	45.3	36.2	40.0
Recent methods ¹⁾	2	11	12	12	20.4	20.6	NA
Other methods ²⁾	6	8	13	13	12.9	8.6	NA
Non-planned methods ³⁾	8	5	12	12	12.0	6.4	NA

Notes:

1) Recent methods include the pill, IUD, vasectomies and injections.

2) Other methods include the rhythm method, a combination of the rhythm method and other methods, and condoms.

3) Non-planned methods include withdrawal and a combination of withdrawal and other methods.

4) This statistical data is in accordance with following document.

Source: USAID Trends.

National Statistical Office.

Trends in Fertility, Family Planning and Child Mortality in the Philippines.

Table 4. Birth rates by cities and rural areas

Year	Contraceptive Prevalence Rate		Total Fertility Rate		Infant Mortality Rate	
	urban area	Rural areas	urban area	Rural areas	urban area	Rural areas
1978	47	31	3.8	6.0	NA	NA
1993	43	37	3.5	4.8	21.5	30.5

Source: National Statistical Office, National Demographic Survey 1993.

National Statistical Office, Trends in Fertility, Family Planning and Child Mortality in the Philippines.

Table 5. Distribution and density of the population in the Philippines

(Unit: %, people)

Region		Population distribution (%)	Population density
National capital region		13	12,497.5
- Sub-total)		13	
Metropolitan shadow region	- Region 3	10	340.0
	- Region 4	13	176.1
	- Sub-total	23	
Metropolitan counter magnet region	- Region 7	8	307.3
	- Region 11	7	140.7
	- Sub-total	15	
Regions with both rural districts and cities	- Region 1	6	276.5
	- Region 6	9	266.7
	- Region 10	6	123.9
	- Sub-total	21	
Regions with mostly rural districts	- Region 2	4	87.2
	- Region 5	6	221.7
	- Region 8	5	142.5
	- Region 9	5	169.0
	- Region 12	5	136.2
	- Sub-total	25	
Regions with mountain and hill administrations	CAR	2	62.7
	- Sub-total	2	
Entire country		100	202.3

Note: The above table was created with the use of the following documents.
Source: National Statistical Office, 1990 Census of Population and Housing.

Table 6. Urbanization trends

Regional classification	1970		1980		1990	
	Population	Percent	Population	Percent	Population	Percent
Cities	11,667,820	31.8	17,943,897	37.3	29,550,351	48.7
Rural districts	25,066,666	68.2	30,154,563	62.4	31,147,634	51.3
Total	36,684,486	100.0	48,098,460	100.0	60,697,994	100.0

Source: National Statistical Office, 1990 Census of Population and Housing.

Table 7. Migration rates (1975 - 1980)

National capital region		3.70
Metropolitan shadow region	- Region 3	0.25
	- Region 4	1.43
Metropolitan counter magnet region	- Region 7	-2.08
	- Region 11	1.07
Regions with both rural districts and cities	- Region 1	-1.79
	- Region 6	-1.97
	- Region 10	1.69
Regions with mostly rural districts	- Region 2	-0.17
	- Region 5	-2.25
	- Region 8	-3.13
	- Region 9	-0.47
	- Region 12	0.99

Source: National Statistical Office, 1994 Philippines Yearbook.

Table 8. Percentage of poverty-stricken families against all families

(Unit: %)

Year	Entire country	Rural area	Urban area
1985	44.2	50.7	33.6
1988	40.2	46.3	30.1
1991	39.2	47.2	31.0

Source: Republic of the Philippines, Social Development in Philippines (Vision, Challenges and Imperatives), March 1995.

Table 9. Unemployment rates by region

(Unit: %)

Region / Year		1993	1992
National capital region		16.1	15.7
Metropolitan shadow region	- Region 3	12.3	12.1
	- Region 4	8.5	8.4
Metropolitan counter magnet region	- Region 7	8.6	7.9
	- Region 11	8.6	9.5
Regions with both rural districts and cities	- Region 1	8.9	6.9
	- Region 6	7.7	8.0
	- Region 10	8.3	5.9
Regions with mostly rural districts	- Region 2	4.0	5.8
	- Region 5	5.3	5.6
	- Region 8	5.7	6.7
	- Region 9	6.6	5.8
	- Region 12	6.4	4.8
Regions with mountain and hill administrations		5.3	5.0

Source: National Statistical Office, 1994 Philippines Yearbook.

Table 10. Dependent ratio by area

(Unit: %)

Region	Young dependency ratio	Old dependency ratio	Dependency ratio
Urban Area	61.56	5.40	66.96
Rural Area	77.87	6.56	84.43

Note: The above table was created with the use of the following documents.

Source: National Statistical Office, 1990 Census of Population and Housing.

Table 11. Future estimation of urbanization

(Unit: %)

Year	2000	2005	2010	2015	2020	2025
Urbanization rate	49.0	—	56.4	—	61.3	66.1

Source: United Nations, Prospects of World Population.

Table 12. Future labor supply and demand

(Unit: 1000 people)

Year	Population	Labor supply	Labor demand
1995	68286.9	27444.0	24242.4
2000	76200.5	31649.8	26275.6
2005	84375.5	36094.6	29388.0
2010	92598.1	40635.2	34115.4
2015	100634.3	45407.5	41378.9
2020	108210.1	50286.2	52566.8
2025	115102.2	55143.5	69798.8

Figure 1. Demographic transition

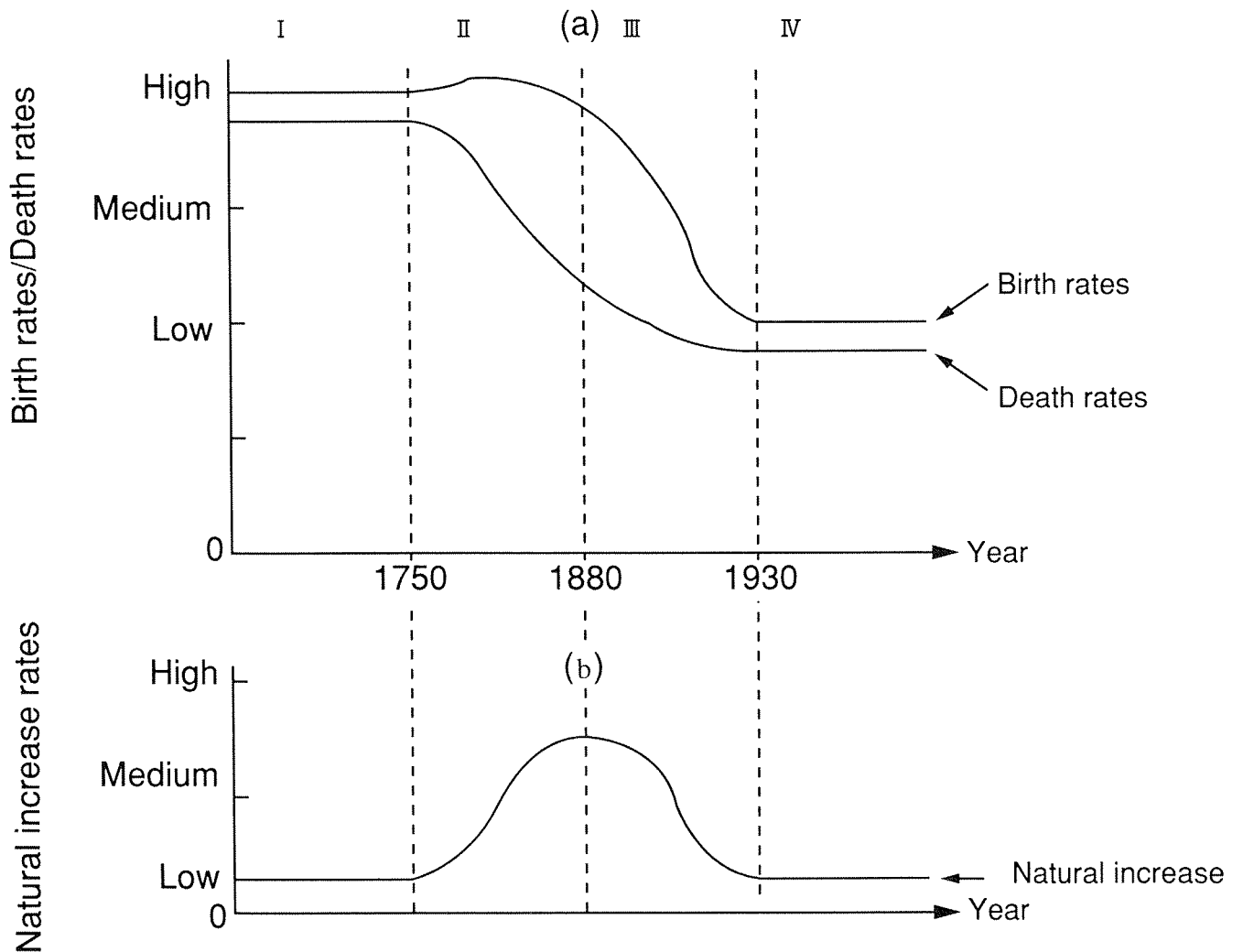


Figure 2. Philippines' birth rate and death rate transition

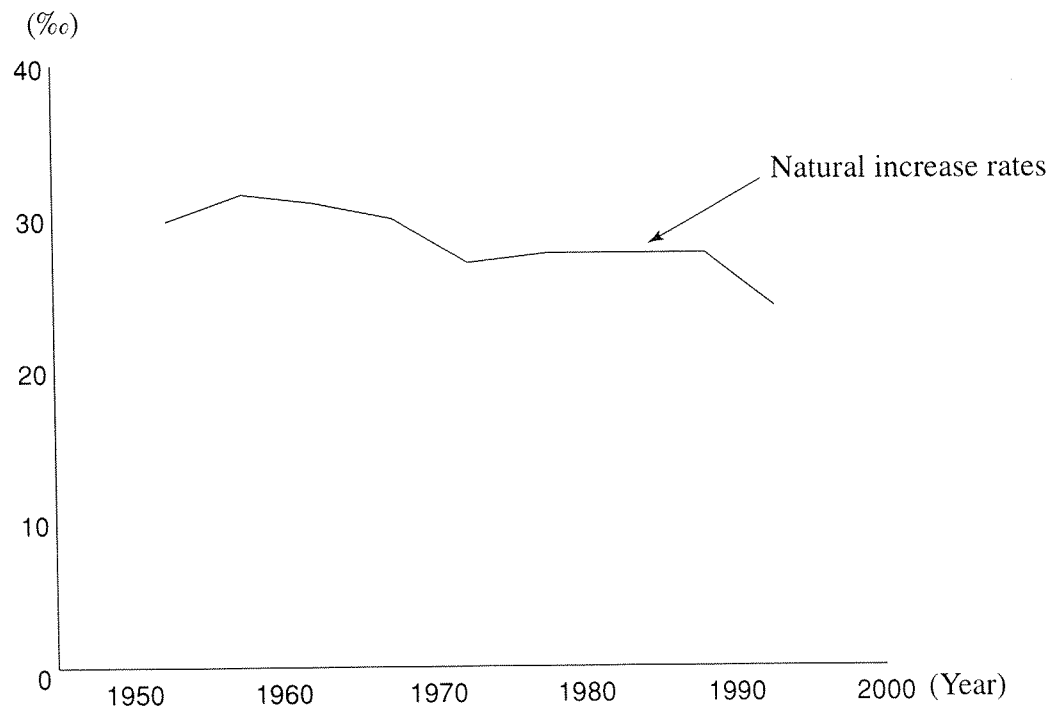
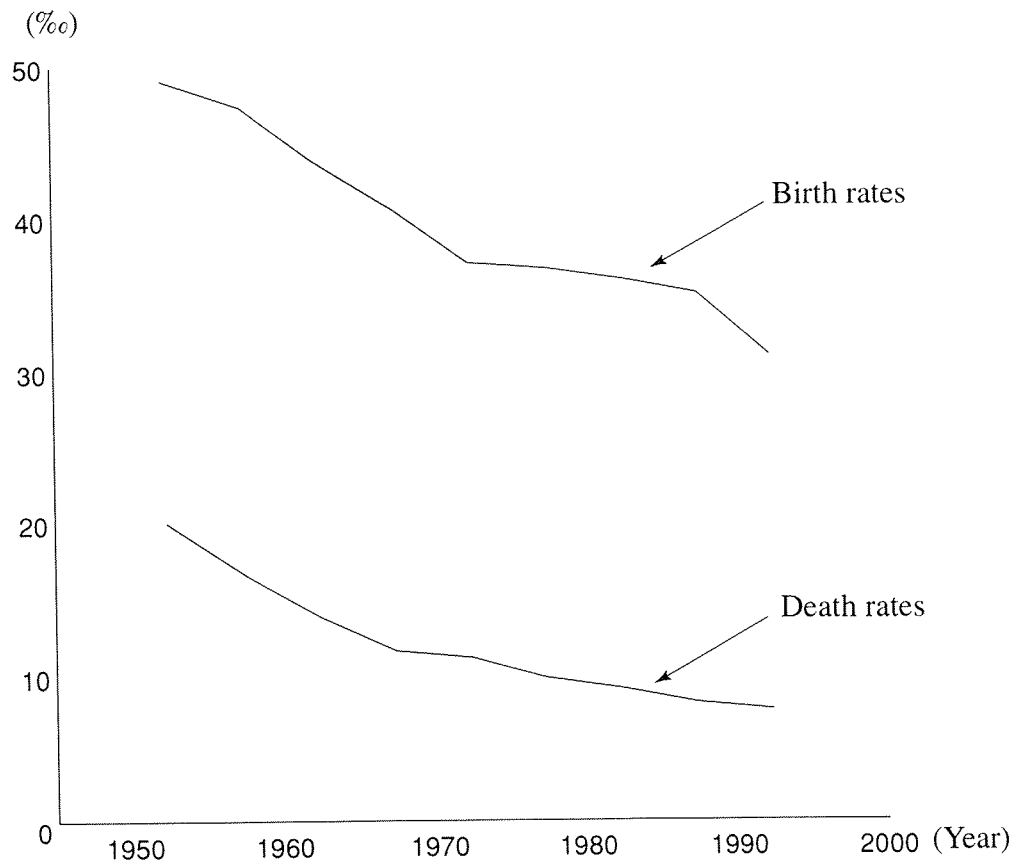
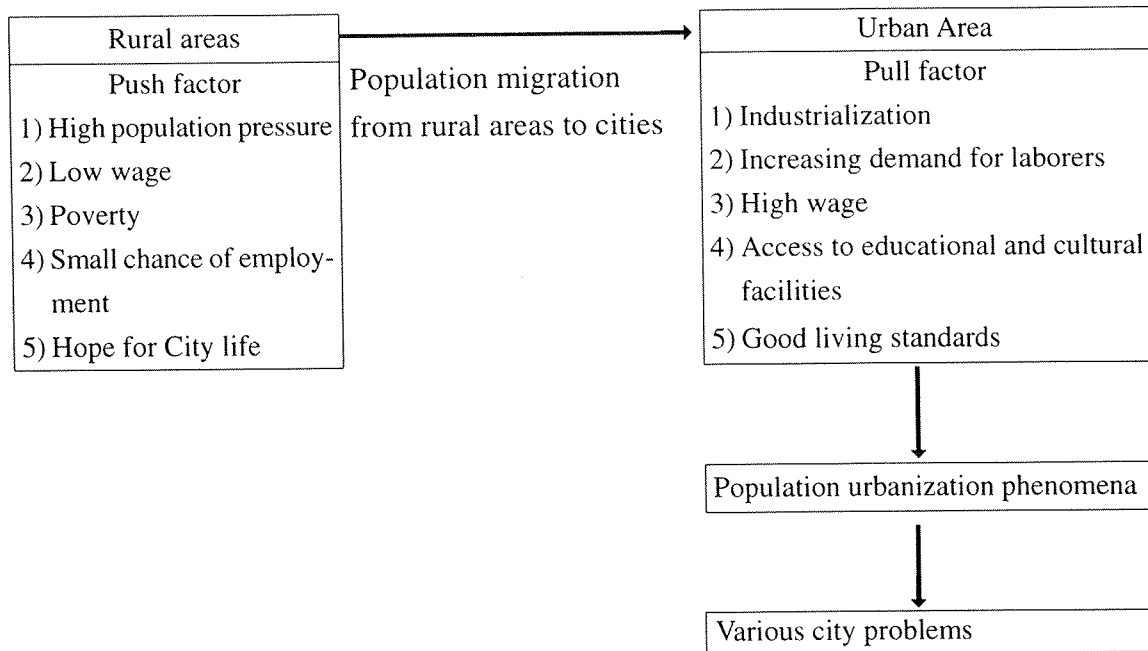


Figure 3. Cause of population migration from rural areas to urban area



Chapter Five

Preservation of health and medicine in the Philippines

1 Population and birth

(1) Trend variation of national population

The population of the Philippines in 1972 stood at approximately 39,040,000 (19,430,000 male, 19,610,000 female), but twenty years later an increase of around 67.4% over 1972 became apparent with a total of approximately 65,340,000 (32,830,000 male, 32,500,000 female) (See document #1).

The birth rate (per one-thousand people) reached an all-time low in 1972 with 24.8, an all-time high in 1979 with 30.7, and 25.8 for 1992. This represents a 1.1% decrease in the twenty years since 1972. The sex ratio of birth is 109.

This indicates a 2.6-fold increase in comparison with Japan's 9.8 birth rate (See document #6) in 1992.

(2) Birth attendance

The decision to have or not to have a medical specialist present at the time of birth plays an important role in maternal mortality and premature infant mortality rates. According to 1992 statistics (See document #1), 28.3% of births were attended by a doctor, 1.1% by a nurse, 30.0% by a midwife, 39.2% by a traditional midwife, and 1.4% by others, and the figure for births

attended by doctors, nurses and midwives was 59.4% for the whole of the Philippines. Looking at these figures by region, the highest figure attained was by Manila (NCR) with 88.4%, the lowest figure was central Mindanao (XII) with 48.5%, and the central Visayas (VII) with 80.2%.

(3) Age of mothers giving birth

6% of women in the Philippines under the age of twenty give birth to babies, and the age of giving birth is spread over a wide spectrum up to the age of 50. (table #1). (See document #1).

In comparison with this, 77% of women in Japan give birth between the ages of 20 and 29 (See document #6). The age of the mother at the time of birth affects not only the child but places a large burden on the health of the mother, and giving birth at too young an age also has a high risk factor.

2 Mortality statistics

(1) The crude death rate and PMI (Proportional Mortality Ratio)

Stood at 7.0 in 1972 (per 1,000 population), but was reduced by 30% to 4.9 (5.8 male, 4.0 female) in 1992 (See document #1). The highest rate by region was in Ilocanos (I) with 6.4, and the lowest rate was in central Mindanao (XII) with 2.1. The figures for Japan in 1992 stood at 6.9 (7.7 male, 6.2 female) (See document #6).

However, looking at the percentage of deaths over the age of 50 amongst the entire mortality figures (PMI), the percentage for the Philippines in 1992 was 53.2%. Ilocanos (I) had the highest rate with 61.5 and XII had the lowest rate with 46.8. On the other hand, Japan's figures were 91.1%. This indicates that the Philippines is not as far ahead as Japan with regards to an aging society with its high mortality rate over the age of 50, and that the percentage of people who die under the age of 50 in the Philippines is high.

(2) Infant mortality rates (per 1,000 births) and neo-natal mortality rates

As the survival of an infant will depend largely on the health of the mother and the conditions of upbringing, regional sanitation and social conditions, both economical and educational, are important factors in infant mortality.

A 66.2% reduction has been recorded in the twenty years since 1972 (64.7) with a 21.9 figure for 1992 (See document #1). However, this figure is the equivalent to Japanese figures for 1963-64. Japan attained a figure of 4.5 in 1992, the best in the world (See document #6).

By region, the highest figure was attained by the eastern Visayas (VIII) with 26.9, the

lowest by XII with 12.4, and Manila (NCR) had a relatively high figure of 25.0.

The neonatal mortality rate for infants less than 28 days old was 10.1 in 1992 (Japan's figure was 2.4) (See document #1 and #6). 1972's figure of 14.0 had been improved by 63.6% over a period of twenty years.

(3) Maternal death rate (per 100,000 births)

A 42.8% improvement in maternity death rates was recorded for the 80 deaths in 1992 over the 140 in 1972. The figures for Japan were 9.2 (1992) (See documents #1 and #6). By region, the highest figure was attained by the central Visayas (VII) with 170, the lowest by Manila (NCR) with 40. This represents a 4.2-fold discrepancy between cities and agricultural areas.

3 Mortality statistics

(1) Ten leading causes of mortality (rate/10,000 pop) 1992

Heart disease has been the leading cause of death ever since 1990, and the three adult diseases (heart, blood vessels, malignant neoplasma), account for 34% of this figure (See document #1). Contagious diseases, including pneumonia, which is number two on the list, accounts for 62.6%. Diarrhea is in the ninth position, but was sixth ten years ago. Tuberculosis is in fifth position, but in 1972 it was in second position next to pneumonia. However, it dropped down to number three in 1982 (table #2). Adult diseases and contagious diseases being at the top of the cause of mortality list in the Philippines is a phenomena common to most developing countries. Death through accident is sixth on the list with car accidents accounting for most deaths, followed by drowning and faeling accidents.

Comparing the figures for the 30-year period starting 1962, the mortality rate through heart disease has increased by 166.9% and through new malignant neoplasma by 68.6%, but contagious diseases have been reduced by 59.4%. This seems to indicate that both developed and developing societies are prevalent.

(2) Ten leading causes of infant mortality

The number one killer is pneumonia (table #3) (See document #1). Although it is very difficult to prevent numbers 2, 3, 6 and 10 on the list, diarrhea (No.4), septicemia (No.5), malnutrition and measles are illnesses that will lower mortality rates if improvements are made in the preservation of mother and infant's health and in sanitation.

There is a necessity for wide improvements in medical care and in the sanitary preserva-

tion of health. Easy-to-take medicines for diarrhea are on sale through the supply of electrolytes, but there is a necessity to improvement the management of the water supply.

(3) Causes of maternal mortality

Complications before, during and after birth is in the first place and accounts for 32.9% of all deaths, then comes poisoning during pregnancy (25%), hemorrhaging related to post-natal bleeding (9%) (See document #1).

In order to improve maternal mortality rates in pregnant woman and nursing mothers, it is necessary to have the correct facilities, to have medical staff present during birth, to ensure thorough systems for blood-transfusions, to maintain health clinics for mothers-to-be, to control nourishment factors, and to have the correct administration of pregnant women and nursing mothers.

4 Statistics of communicable disease

(1) Death rates through tuberculosis

The death rate through tuberculosis stood at 76.3 in 1972, but had been reduced by 59.6% to 30.8 twenty years later in 1992 (See document #1). Japan's figures for tuberculosis death in 1992 was 2.7, and other developed countries lie between 0.3 and 1.2 (See document #6). There is a pressing need to establish measures for the eradication of tuberculosis.

(2) Death statistics of communicable diseases

According to a report issued in 1992, there are many different types of communicable diseases prevalent as is indicated in table #4 (See document #3). Of these diseases, the ones that are not closely linked with mortality rates are rabies, meningo coccal disease and tetanus in newborn babies. Despite the large number of measles and dengue fever cases, they result in very few deaths.

(3) AIDS

It has been announced that the number of people afflicted with AIDS over the past eight years is 86, and that there are 282 carriers (table #5). Most of these cases are passed on through sexual relations (See document \$5). However, there is a possibility that there are many people not yet detected or not yet registered.

5 Morbidity rate

The number one slot in the morbidity rate list for 1992 was diarrhea, and this illness has been at the top position for the past five years (Table #6). Respiratory illnesses occupy the second to fourth positions, but a comparison of average figures over the past five years indicate a two-fold increase in the number of influenza cases. This can be put down to discrepancies in the spread of influenza. Although other prevalent illnesses (chicken pox, measles, malaria) are included within the top ten, as these diseases are more prevalent in some years than others, a comparison of averages over the past five years indicates a 2.7-fold increase in chicken pox in 1992, but a 15% decrease in measles and a 54% decrease in malaria (See document #1). On the other hand, an increase in accidents is apparent (table #6).

A chart of figures by order of the entire country and by region is available in table #7. A comparison of regions where diarrhea holds the top position with regions where it holds the bottom position show an 11.7-fold difference. In the same way, a 17-fold discrepancy existed with the second item, a 19.9-fold difference with influenza in 3rd position, 23.5-fold for pneumonia in 4th position, 22-fold for phthisis in 5th position, and 10.2-fold for measles in 8th position. The regional differences for positions six to eight and ten were great, and there were certain regions which were not included in the top ten.

6 Medical care

(1) Number of hospitals

The number of state-run and private hospitals between 1975 and 1993 is displayed in table #8 (See document #2). The number of private hospitals was increased by 80.7% over this 18-year period against only 48% for state-run hospitals. By calculating the 1,632 hospitals against a population of 65,400,000, the number of hospitals available per 100,000 population is 2.5. The figures for Japan stand at 8.1 (See document #6).

(2) Number of beds

State-run hospitals reduced the number of available beds over the 18-year period by approximately 14.5%, but the number of beds in private hospitals increased by 29%, leading to an overall increase of approximately 3% (table #8) (See document #2). The number of beds available per 100,000 is 107 against 1,107 for Japan (see document #6), or an approximate 10-fold difference.

(3) Number of doctors, dentists, nurses and midwives

A 16.6% decrease in the number of available doctors was recorded between 1985 and 1992, but the number of dentists increased by 468. The number of nurses increased by 4,400 and the number of midwives by 2,500 (table #9) (See document #2). The number of doctors available per 100,000 population is 10.8 (165.0 for Japan), the number of dentists 2.47 (58.3 for Japan), the number of nurses 22.7 (639.5 for Japan) and the number of midwives 18.9 (18.2 for Japan) (See document #6).

[Documentation]

1. '92 Philippine Health Statistics : Health Intelligence Service, Department of Health Manila, Philippine.
2. 1995 Philippine Statistical Yearbook : National Statistical Coordination Bord.
3. National Epidemic Sentinel Surveillance System, Annual Report 1992, Department of Health, Office of the Secretary, Philippine.
4. DOH report 1994.
5. 1992 National Health Survey, Field Health Service Information System(FHSIS).
6. Kokumin eisei no doko 1994 vol. 41 No.9 Health and Welfare Statistics Association

Table 1. Age of mothers giving birth
(1992)

Age category	%	Figures for Japan
14 years old max.	0.02	
15-19 years old	6.2	3.0
20-24 years old	29.0	26.9
25-29 years old	29.0	49.1
30-34 years old	19.7	17.0
35-39 years old	10.9	3.4
40-44 years old	3.7	0.5
45-49 years old	0.5	0.0
50 years old min.	0.1	
Not available	0.9	

Document 1, 6

Table 2. Ten leading causes of mortality (per 100,000 population)

1992			Order and rates			
Order	Cause of death	Rates (%)	1982	1972	5-year average (1987-1991)	
1	Heart diseases	75.0 (15.3)	(2) 72.5	(4) 43.5	(2) 71.9	
2	Pneumonias	64.4 (13.2)	(1) 89.3	(1) 125.1	(1) 74.3	
3	Diseases of the vascular system	54.2 (11.1)	(4) 42.4	(7) 32.9	(3) 53.6	
4	Malignant neoplasms	36.6 (7.5)	(5) 33.1	(9) 26.3	(5) 35.8	
5	Tuberculosis, all forms	35.7 (7.3)	(3) 55.7	(2) 76.3	(4) 42.8	
6	Accidents	17.3 (3.5)	(9) 11.5		(6) 19.1	
7	Chronic obstructive disease and allied conditions	14.4 (2.9)		(6) 37.0	(8) 12.5	
8	Other respiratory conditions	10.7 (2.2)			(9) 10.8	
9	Diarrhea	10.3 (2.1)	(6) 25.1		(7) 14.0	
10	Septicemia	8.8 (1.8)			(10) 8.5	

Document 1

In order (1) to (10)

Table 3. Ten leading causes of infant mortality (per 1,000 births)

Order	Cause of death	Percentage of entire figures	
		Rates	(%)
1	Pneumonias	5.5	25.0
2	Respiratory conditions of fetus and newborn	3.3	15.0
3	Congenital anomalies	1.2	5.4
4	Diarrhea	0.9	4.0
5	Septicemia	0.9	3.9
6	Birth injury and difficult labor	0.7	3.1
7	Avitaminoses and other nutritional deficiency	0.6	2.7
8	Goiter thyrotoxicosis hypothyroidism and other endocrine and metabolic diseases	0.5	2.4
9	Measles	0.5	2.2
10	Pulmonary circulation diseases	0.4	2.1

Document 1

Table 4. Death statistics of communicable diseases

Name of communicable diseases	Number of people afflicted	Number of deaths	Death rate
Measles	9,980	662	7
Dengue fever	3,969	60	2
Non-neonatal tetanus	1,511	210	14
Cholera	1,179	6	1
Typhoid fever	1,179	17	1
Malaria	1,074	23	2
Hepatitis B	480	33	7
Neonatal tetanus	347	119	34
Diphtheria	266	32	12
Hepatitis A	225	7	3
Meningococcal disease	160	57	36
Rabies	116	109	94
Polio	47	4	9
Whooping cough	32	0	0

Document 3

Table 5. AIDS (total between 1984 and 1992)

Cause	Cumulative		Total
	AIDS	HIV	
Sexual relations: Heterosexual	39	154	193
Homosexual / Bi-sexual	38	28	66
Blood / Blood products	3	1	4
Needles and Syringes	0	2	2
Mother-to-infant	2	3	5
Unknown	4	94	98
Total	86	282	388

Document 3

Table 6. Ten leading causes of morbidity (per 100,000 population)

Order	1992		Average for the past 5 years (1987-1991)	Maximum and minimum figures for regional morbidity rates in 1992 (magnification)
	Name of disease	Rates		
1	Diarrhea	1587.3	1634.1	2569.6 - 218.7 (11.7)
2	Bronchitis	1179.1	1380.9	2619.9 - 171.4 (17.0)
3	Influenza	780.8	373.9	1472.2 - 74.0 (19.9)
4	Pneumonias	613.8	945.2	1257.1 - 53.5 (23.5)
5	Tuberculosis, all forms	209.6	276.0	415.9 - 18.9 (22.0)
6	Accidents	207.0	189.6	354.3 - *
7	Heart diseases	108.7	136.3	105.3 - *
8	Chicken pox	95.4	35.1	118.7 - *
9	Measles	83.5	99.2	222.3 - 21.8 (10.2)
10	Malaria	71.3	158.3	383.6 - *

Document 1

*: Not included in the ten leading causes of morbidity

Table 7. Order of morbidity for the whole country and by region

Whole of the Philippines		Regions													
Order	Name of disease	NCR	CAR	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	Diarrhea	1	1	1	3	1	1	1	1	1	1	1	2	3	1
2	Bronchitis	3	2	2	2	2	2	3	2	2	2	3	1	1	2
3	Influenza	5	4	4	1	3	4	2	4	5	3	2	4	2	3
4	Pneumonias	2	3	3	4	4	3	4	3	3	4	4	3	4	4
5	Tuberculosis	4	9	5	6	5	5	5	5	4	5	6	5	6	7
6	Accidents											5	6		
7	Heart disease	6		6	8	7				10	9	10			8
8	Chicken pox	8	8	7	7	6	8	7	6		8	7	7	9	5
9	Measles	7	7	9	9	9	7	6	7	6	6	8	9	7	6
10	Malaria		6		5		6	8				9	8	10	
	Typhoid and paratyphoid fever	9		10					8						
	Malignant neoplasm	10		8	10	8	9	10	9	7					10
	Goiter					10									
	Whooping cough							9							
	Dysentery								10		7				
	A-type hepatitis					10									
	Dengue fever									9				5	
	Parasites										10		10	8	

Document 1

Table 8. Number of hospitals and hospital beds

Year	Number of hospitals			Number of hospital beds			
	State-run	Private	Total	State-run	Private	Total	Per 10,000 people
1975	363	606	969	41,692	28,082	69,774	16.5
1985	624	1,190	1,814	48,395	41,113	89,508	15.5
1990	598	1,135	1,733	49,273	37,860	87,133	14.0
1993	537	1,095	1,632	35,629	36,236	71,865	10.7

Document 2

Table 9. Number of doctors, dentists, nurses and midwives

	1985	1990	1992
Number of doctors	8,524	7,431	7,107
Number of dentists	1,146	1,550	1,614
Number of nurses	10,424	10,270	14,853
Number of midwives	9,792	11,604	12,339

Document 2

Chapter Six

The environment and sanitation in the Philippines

Introduction

It is possible to view the health problems of the Philippines through mortality rate statistics, morbidity rates and injury statistics, and statistics on the number of available hospitals and number of medical staff. If environmental issues, sanitary conditions and health education have an effect on health, these effects will appear over a long period of time. The rapid urbanization of the population is related to all fields of health and has an important effect on health. This report examines this situation based on acquired documentation. The tables and documentation in this chapter are same as those in Chapter 4.

1 Sanitary conditions as seen from mortality statistics

Adult diseases account for the first, third and fourth positions in the ten leading causes of death, and despite the order of these, the remaining nine diseases are contagious diseases, an issue that affects developed industrial nations (See document #1). Pneumonia is usually a problem for old people caused by the aging of society in developed countries, but in the Philippines it accounts for the top cause on death in infants. The distribution of vaccines against other contagious diseases will bring down the death rate. Other reasons for the high death rate can be put

down to a lack of hospitals, hospital beds and medical staff, as well as delays in environmental sanitation and issues of nutrition. Infant mortality rates (see document #1), known as one of the barometers for measuring environmental sanitation conditions, have been improved by 66% over the past twenty years, but still remain a high 21.9. The fact that pneumonia is the main cause of death indicates outdated methods of health preservation and medical systems, and there also appears to be problems with medical administration related to the use of antibiotics. With regards to the high death rate during maternity, there is also a necessity for improvements in the health preservation of pregnant women in the areas of delivery within facilities, blood transfusion systems and the attendance of specialists, etc.

Diarrhea is fourth most potent killer in the list (see document #1), so there is necessary a necessity for improvements in clean drinking water and supplementary liquids. Although triclosene, an agent to remove bacteria from drinking water, is easily available, there is still a need for water facilities to provide safe drinking water. Although the hereditary causes of illness accounts for 23.5%, non-hereditary problems, such as vitamin deficiency and malnutrition, etc., account for 76.5% of infant mortality, and as these problems are preventable, there is a need for future measures.

2 Sanitary conditions as seen from communicable disease statistics

Given the geographical environment of the Philippines, it is no surprise that communicable diseases found only in the tropics exist there. Communicable diseases found in Japan, Europe and America also exist there. Amongst these, there are certain diseases that can be prevented through the distribution of vaccines (whooping cough, measles, polio, diphtheria, tetanus, etc.) (See document #3). It is also necessary to take care of the dogs, cats, toxic bats, foxes and other animals that can pass rabies, a communicable disease with the highest mortality rate, onto humans, and there is a need to establish a system of treating this illness with antibiotics and vaccines.

Tuberculosis is a communicable disease over which special attention must be paid, and the Philippines has a 30.8 figure here against Japan's 2.7 - an 11.4-fold discrepancy (See documents #1 and #6). Developed countries employ full measures to prevent the outbreak of diseases that are considered to be illnesses from the past. It is necessary for medical care institutions and the government to unite and adopt the measures with which developed countries have achieved success, such as detecting and treating tuberculosis sufferers accurately, providing assistance for medical facilities, prevention programs, patient control and low-income families, and preventing afflicted people from continuing to work.

AIDS represents a huge threat to the entire world in the 21st century. The total number of reported AIDS victims in the Philippines is 86 with 28 carriers, but it is thought that there are, in fact, more than this.

In a sample survey of 25,500 families throughout the Philippines, 84% admitted to having heard of AIDS (See document #5). However, this figure wavered between 98% and 33% in cities and 85% and 40% in rural areas, indicating huge differences depending on the region. There are also many people in possession of mistaken information about AIDS. For example, it is not uncommon for people to think that AIDS can be passed onto someone else through kissing (66% in urban areas, 74% in rural areas), shaking hands (23%, 35%), drinking from the same cup (54%, 65%), sharing a toilet (47%, 57%), sharing a swimming pool (41%, 52%), cuddling (36%, 50%), and everyday conversation (23%, 29%). Considering the effects that people afflicted with AIDS during working abroad or through prostitution would have on a rural community by returning to the countryside after infection indicates the need for better knowledge to be spread throughout rural areas. It is also necessary for time to be spent on education in order to correct the mis-information that people already have about AIDS victims and to provide them with more knowledge.

3 Sanitary conditions as seen from morbidity rate statistics

Diarrhea, with a high risk of death, stands in the ninth position in the overall death rate list, 4th in the infant mortality rate list, but 1st in the morbidity rate list (See document #1). The danger to life is most acute for babies, malnourished children and old people, as diarrhea can bring about dehydration and a lowering of resistance to the disease. It is necessary to increase the number of facilities that can handle this problem in the most appropriate manner, and increase the number of staff to man the facilities. A survey was carried out in 1990 (see document #5) in which children under the age of five years old who had been treated for diarrhea within the two weeks prior to the survey were studied to discover the percentage who had received treatment at some sort of medical facility (male for the entire country: 32%, cities 33.6%, rural areas 30.6%, female for the entire county: 35.9%, 39.1%, 33.0%), who had been given supplementary liquids orally (entire country: male 25.7%, female 28.8%), who had receive supplementary liquids at home (37.3%, 35.1%), who had received antibiotic injections (18.9%, 14.7%), who had been treated at home (39.4%, 39.2%), and who had not received any treatment or for whom details were unknown (20.6%, 20.6%). Some of these cases included bloody stools (0.7% - 0.8%) and dysentery or amebic dysentery were probably also included, so there is a necessity not only for appropriate treatment at medical facilities, but also a need for preventing the spread

of the illness to people in the immediate vicinity.

4 Sanitary conditions as seen from medical facilities and medical staff

There is no doubt that the number of hospitals and hospital beds are increasing every year (see document #2), but observing the situation from the viewpoint of disease, there is still a stark lack of these facilities. A sample survey (see document #5) indicated that 74% of the people who use medical facilities in the course of a year use state-run facilities, and the remaining 26% use independent hospitals and clinics. The ratio of using state-run facilities (76%) and independent facilities (58%) for medical treatment indicated similar figures for examinations (31%, 5%), preventive medicine (15%, 9%), pre-natal and post-natal treatment (12%, 7%), nutrition (10%, 6%), regular check-ups (56%, 52%), and family planning (8%, 5%). The reasons for using the facilities included the fact that they were free (51% for state-run, 11% for independent), because of excellent facilities (70%, 83%) and because of confidentiality (87%, 90%). This shows a tendency for people in the higher-income levels to use independent hospitals and clinics.

It is necessary to establish a system that provides the equal opportunity for all citizens to be educated about health as this will lead to the early detection and treatment of illnesses and preventative measures.

5 System of insurance

The health care financing scheme (HCFS) is available in the Philippines, and of the 30% of people who utilize this system, 42% reside in cities and 18% in rural areas (See document #5). Medicare accounts for an important percentage (88%) of this HCFS system. Most families with a monthly income of between 2,000 and 9,999 pesos use HCFS, but only 12% of families with an income of less than 2,000 pesos and 14% with an income of more than 10,000 pesos use it. The cost of using HCFS is between 500 and 3,999 pesos. All payments made with the use of HCFS are returned, but as it takes more than three months after the patient has left hospital for the money to be returned, it places a heavy financial burden on low-income families. The reasons for this can be put down to delays in detecting illnesses and carrying out treatment. It is necessary to review the medical insurance system with special attention being paid to low-income families.

6 Hygienic drinking water

According to a DOH report issued in 1994 (see document #4), 83% of people have access to safe drinking water, and of this figure the highest number was taken by level I (improved springs and state-run/private wells) with 39.7% (26% in cities, 41% in rural areas). Approximately 26% of all families boiled water for usage owing to the insufficient disinfection of drinking water (18% in cities, 39% in rural areas). Level II (regional water supplies, state-run water supply spigots) accounted for 21.4% (21%, 20%), and level III, with its high level of safety (water supplied by pipes running into houses) accounted for 29.6% (45%, 14%). However, 15.3% (7%, 24%) of families still use rain water and water from non-serviced springs as drinking water. (See document #5). Two million families covering eleven million people cannot access safe drinking water (See document #4).

Boiling water for drinking purposes is the very least that can be done to prevent water-borne contagious diseases. In order to attain this, measures must be implemented to enlighten people, while at the same time advancements must be made in establishing water supply facilities and installing water pipes into residences.

7 Sanitary toilets

The treatment of garbage is necessary to prevent the spread of communicable diseases and bad odors in cities, as well as to maintain attractive scenery. A survey on garbage treatment (see document #5) revealed that methods in practice include domestic incineration (45%), garbage collection in cities (19%), dumping in holes (10%), disposal on low ground (6%), individual burial (5%), turned into compost (4%), turned into animal feed (3%), used for regional land reclamation (3%) and others (3%). Garbage collection was carried out on a daily basis (39%), once or twice per week (39%), once every other day (17%) and others (5%). The dumping of garbage is unhygienic whether it is performed by individuals or the government, and burial in areas which high population densities is not possible. It is necessary to construct incineration facilities and improve the efficiency of collection methods, and there is also a need to consider recycling.

8 Environmental pollution

66% of families feel that environmental pollution is a problem (See document #5). The ratio for this was higher in cities (77%) than in rural areas (55%). The order of items raised were

38% for offensive odors, 33% for noise, and 29% for air pollution. Noise and air pollution are causing problems in cities, and offensive odors cause problems in rural areas. Pollution is well-recognized as the cause of respiratory illnesses (85%: 88% in cities and 55% in rural areas), skin diseases (24%: 29%, 18%) and alimentary system illnesses (32%: 35%, 29%). Pollution in the cities is mostly caused by automobiles. Air pollution is forecast to worsen in the future as the number of vehicles sold is on the increase, traffic jams are caused by badly-maintained road networks, and cars are not being properly serviced.

In order to improve the situation of environmental pollution, it is necessary for the government, autonomous bodies and corporations to join together in order to specify the causes of pollution, eradicate the properties that cause it, establish a system for monitoring the situation, and carry out surveys into the damaging effects it is having on health.

Conclusion

This report was compiled based on acquired documentation regarding health, medical care, the environment and sanitation in the Philippines, but various data acquired on the preservation of health indicate that the issues of the environment and sanitation are both to blame.

Naturally it is not possible to ignore the outbreak and spread of disease, but social and economic frameworks must also not be overlooked.

Chapter Seven

Survey Members and Itinerary

Committee in Japan

Toshio Kuroda	Director Emeritus, Nihon University Population Research Institute
Hidesuke Shimizu	Professor, Department of Public Health and Environment Health, The Jikei University School of Medicine
Minoru Kiryu	Professor, College of International Studies, Chubu University (leader of the field research team)
Tomomi Otsuka	Associate Professor, Department of Humanities and Science, Nihon University (member of the field research team)
Yasuhiro Nimura	Assistant Senior Researcher, Economic Development Research Dpt., Institute of Developing Economies
Tsuguo Hirose	Executive Director and Secretary General, Asian Population and Development Association (APDA)
Masaaki Endo	Project Manager, APDA
Haruyo Kitabata	Manager of International Affairs, APDA (member of the field research team)
Osamu Kusumoto	Senior Researcher, APDA
Tomoe Hamada	Researcher, APDA

Cooperators (Survey in the Republic of Philippines: August 4-17, 1996)

Embassy of Japan in Philippines

Hon. Mr. Hiroyuki Yushita Ambassador of Japan
Mr. Norihiko Yoda First Secretary

Japan International Cooperation Agency, Philippine Office

Mr. Hiroshi Goto Resident Representative
Mr. Naoyuki Ochiai Assistant Resident Representative, Chief of Planning Section
Mr. Eiji Iwasaki Assistant Resident Representative, Project Management Section

Philippine Legislators' Committee on Population and Development Foundation, Inc. (PLCPD)

Mr. Marius V. Diaz Editor, PEOPLE COUNT

Malacanang

Mr. Benjamin D. De Leon Undersecretary/Presidential Assistant for Social Development

United Nations Population Fund (UNFPA)

Ms. Brigida L. Jayme Programme Officer

Metropolitan Manila Development Authority (MMDA)

Mr. Rogelio U. Uranza Director III, Head, Infra Planning & Dev't Group Solid Waste Management Task Force
Mr. Alexander T. Umagat Project Manager, First Metro Manila Sanitary Landfill Station

National Economic Development Authority (NEDA)

Mr. Benjamin D. Turiano Director III
Mr. Joselito C. De Vera Regional Development Coordination Staff

Department of Health (DOH)

Mr. Mario C. Villaverde, MD, MPH Environmental Health Service
Ms. Felicitas S.V. Ureta, MD, MPH Director III and Project Coordinator, Urban Health and Nutrition Project

National Statistics Office

Ms. Nelia Marquez Deputy Administrator
Ms. Monina Collado Officer, Household Statistics Department
Ms. Josie Perez Officer, Household Statistics Department

The Japanese Chamber of Commerce & Industry of the Philippines, Inc.

Mr. Kazuo Nishitani Secretary General

Commission on Population (POPCOM)

Ms. Cecile Joaquin-Yasay Executive Director
Mr. Oscar Basco Escobar Deputy Executive Director

University of the Philippines

Dr. Aurora E. Perez Director, Population Institute
Dr. Lysander A. Padilla Assistant Professor, School of Urban and Regional Planning

Commission on Population, Regional Office No. 7

Ms. Pompeya Cortel Regional Director
Ms. Merlyn W. Rodriguez Planning Officer

City Government Department Head II

Mr. Jose A. Guisadio City Planning & Development Coordinator Department of Planning and Development

Department of Health, Regional Field Office

Dr. Marietta Fuentes Regional Director

JICA - Regional Field Office No. VII

Dr. Shoichi Endo, MD, MPH, Ph. D Chief Adviser
Mr. Yoshinori Terasaki Project Coordinator, The Public Health Development Project

University of the Philippines, Cebu College.

Prof. Maria Rosario Piquero-Ballescás Professor, Social Sciences Division

UP Cebu Databank

Ms. Cecilia S. Fernandez

University of San Carlos

Dr. Wilhelm Flieger, SVD Professor, Office of Population Studies

Asian Development Bank (ADB)

Mr. Yoshitsugu Matsuura Senior Information Officer
Mr. Tomomi Tamaki Programs Officer - Division 3
Mr. Srinivasa Madhur Economist

Philippine Automotive Manufacturing Corporation

Mr. Naomichi Hokari President and Chief Executive Officer

Matsushita Electric Philippines Corporation (MEPCO)

Mr. Yoshihiro Hama President, Manufacturing Division
Mr. Hideoki Azuma Adviser, Personnel Department

Congress of the Philippines

Mr. J. Prospero E. De Vera III Senior Consultant
Congressional Commission on Agricultural Modernization

Survey Itinerary

Period: August 4 - August 17, 1996 (14 days)

Date	Activities
August 4 (Sun.)	<ul style="list-style-type: none"> • 09:50 Departure from Narita (JL741). • 13:10 Arrival at Manila. • Discussion on outline of survey with local counterpart.
August 5 (Mon.)	<ul style="list-style-type: none"> • Visit to UNFPA Philippines office. Briefing on the studies and projects of UNFPA on general population issues and urbanization of population in Philippines by Ms. B.L. Jayme, Programme Officer. • Collect data and publication from UNDP Philippines office. • Visit to Philippine Legislators' Committee on Population and Development (PLCPD) office. Briefing on PLCPD activities and population problems in Philippines.
August 6 (Tue.)	<ul style="list-style-type: none"> • Visit to Metropolitan Manila Development Authority (MMDA). Briefing on the countermeasure of urban problems in Metro Manila focusing on gavage and transportation problems by Mr. R.U. Uranza, Head, Infra Planning & Dev't Group and Mr. A.T. Umagat, Project Manager, MMA First Metro Manila Sanitary Landfill Station. • Visit to National Economic and Development Authority (NEDA). Briefing on <i>The Medium Term Philippine Development Plan (1993-1998)</i> and the outline of Philippines' economy by Mr. B.D. Turiano, Director. Briefing on economic development and urbanization in Philippines from Mr. J.C. De Vera, Regional Development Coordination Staff. Collecting data and publication.
August 7 (Wed.)	<ul style="list-style-type: none"> • Visit to Environmental Health Service Division, Department of Health (DOH). Briefing on the problems of public health and sanitation in Philippines from Dr. M.C. Villaverde. • Visit to Urban Health and Nutrition Project office, Department of Health (DOH). Briefing on the outline of Urban Health and Nutrition Project from Dr. F.S.V. Ureta, Director III and Project Coordinator. • Visit to National Statistics Office (NSO). Briefing on statistics of population, health, medicine and economy from Ms. N. Marquez, Deputy

- Administrator, Ms. M. Collado, Ms. J. Perez, Officer of Household Statistics Department. Collecting information and publication.
- August 8 (Thu.)
- Visit to Embassy of Japan to Philippines. Discussion on outline of survey with Dr. Norihiko Yoda, First Secretary.
 - Visit to Japan International Cooperation Agency (JICA) Philippines office. Briefing on JICA's projects in Philippines from Mr. Hiroshi Goto, Resident Representative, Mr. Naoyuki Ochiai, Assistant Resident Representative, Chief of Planning Section and Mr. Eiji Iwasaki, Assistant Resident Representative, Project Management Section.
 - Visit to Commission on Population (POPCOM). Briefing on population policy of Philippines from Mr. O. B. Escobar, Deputy Executive Director.
- August 9 (Fri.)
- Visit to Population Institute, University of the Philippines. Briefing on their researches and studies on urbanization of Philippines from Dr. A.E. Perez, Director and Dr. Z.C. Zablan.
 - Visit to Payatas for interview in slum area and a housing built by the government.
- August 10 (Sat.)
- Move to Cebu City (PR849). Arrangement of data.
- August 11 (Sun.)
- Analysis and arrangement of collected data and materials.
- August 12 (Mon.)
- Visit to City Hall in Cebu. Briefing on policy and plan of urban development in Cebu city from Mr. J.A. Guisadio, City Planning & Development Coordinator.
 - Visit to Department of Health, Regional Field office No. VII. Briefing and collecting data on health, medicine and sanitation from Dr. M. Fuentes, Regional Director.
 - Briefing on JICA's Public Health Development Project in Philippines (Cebu Province) from Dr. S. Endo, Chief Adviser and Mr. Y. Terasaki, Project Coordinator.
 - Visit to University of the Philippines, Cebu College. Briefing on urban problems from Prof. M.R. Piquero-Ballescás. Collecting data UP Cebu Databank.

August 13 (Tue.)	<ul style="list-style-type: none"> • Visit to University of San Carlos. Briefing on population and urbanization in Metro-Cebu from Dr. Wilhelm Flieger, SVD. • Visit and observe the dump site and slum area in Metro-Cebu. • Move to Manila (PR856).
August 14 (Wed.)	<ul style="list-style-type: none"> • Visit to Asian Development Bank (ADB). Briefing on ADB's activities in general from Mr. Y. Matsuura, Senior Information Officer. Briefing on urban development program from Mr. T. Tamaki, Programs Officer and Mr. S. Madhur, Economist. • Visit to Philippine Automotive Manufacturing Corporation. Briefing on activities, employment system and current situation of automobile industry in Philippines from Mr. Naomichi Hokari, President • Visit to Matsushita Electric Philippines Corporation (MEPCO). Briefing on activities, employment system and current situation of home electric appliances industry in Philippines from Mr. Hiroshi Hama, President.
August 15 (Thu.)	<ul style="list-style-type: none"> • Observation of rural area in Pampanga Province and re-development of former Clerk air base in Angeles city.
August 16 (Fri.)	<ul style="list-style-type: none"> • Collecting data. • Visit to Embassy of Japan to pay courtesy call to H.E. Mr. Hiroyuki Yushita, Ambassador of Japan. Report the result of surveys in Philippines to Mr. Norihiko Yoda, First Secretary.
August 17 (Sat.)	<ul style="list-style-type: none"> • 09:20 Departure from Manila (NW006). • 14:35 Arrival at Narita.

Appendix

— List of collected publications, Questionnaire sheet and Map —

Department of Health (DOH)

Philippines. Department of Health. Philippine Health Statistics 1992, 1996.

Philippines. Department of Health. 1992 National Health Survey.

Philippines. Department of Health. By Alejandro N. Herrin, School of Economics, University of the Philippines, Diliman. Towards Health Policy Development in the Philippines, Health Sector Review: Philippines, Health Finance Development Project (HFDP) Monograph No.1, March 1992.

Philippines. Department of Health. By Orville Solon Phais, Phais M. Gamboa, J. Brad Schwartz, Alejandro N. Herrin. Health Sector Financing in the Philippines, HFDP Monograph No.2, March 1992.

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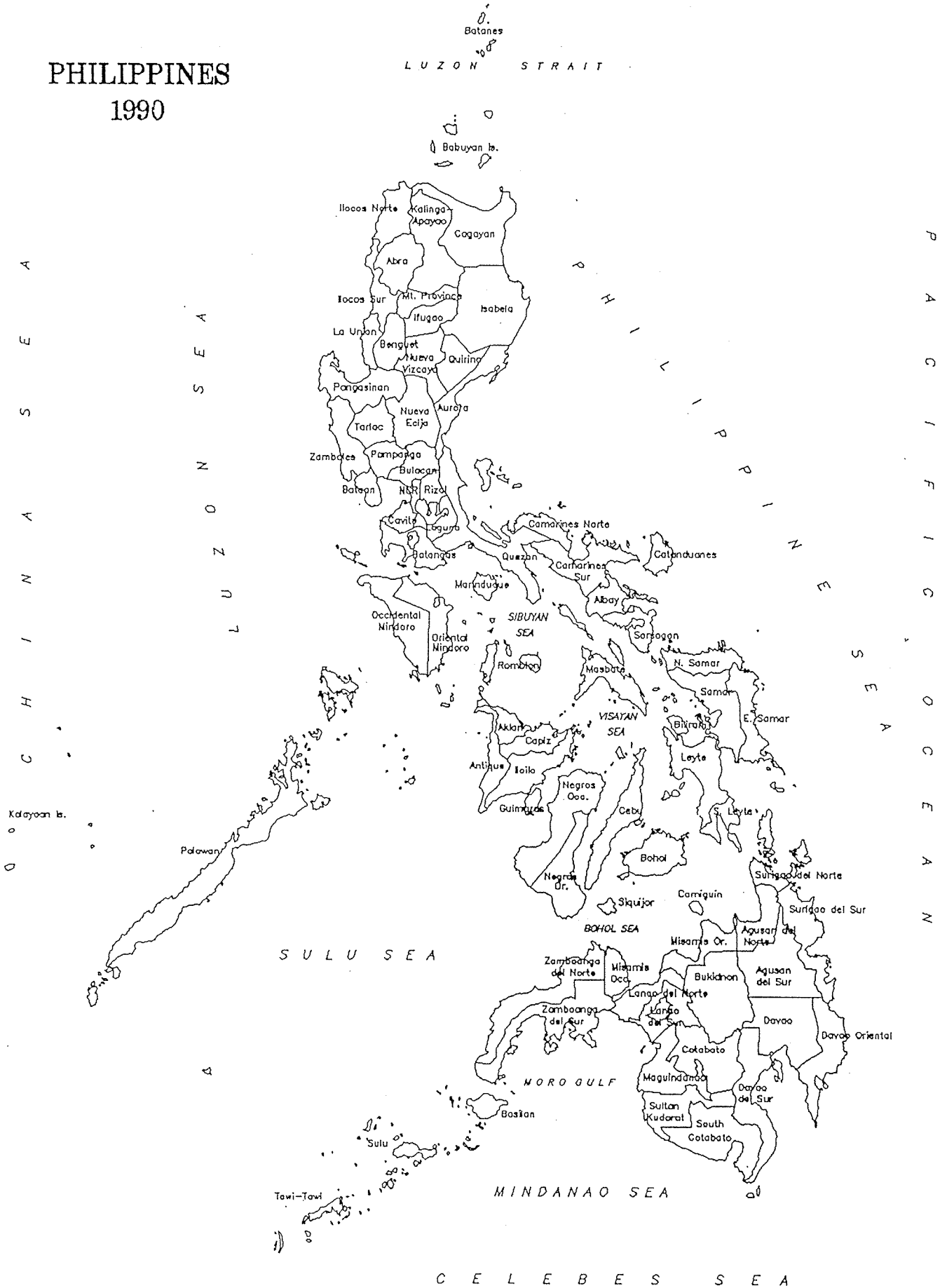
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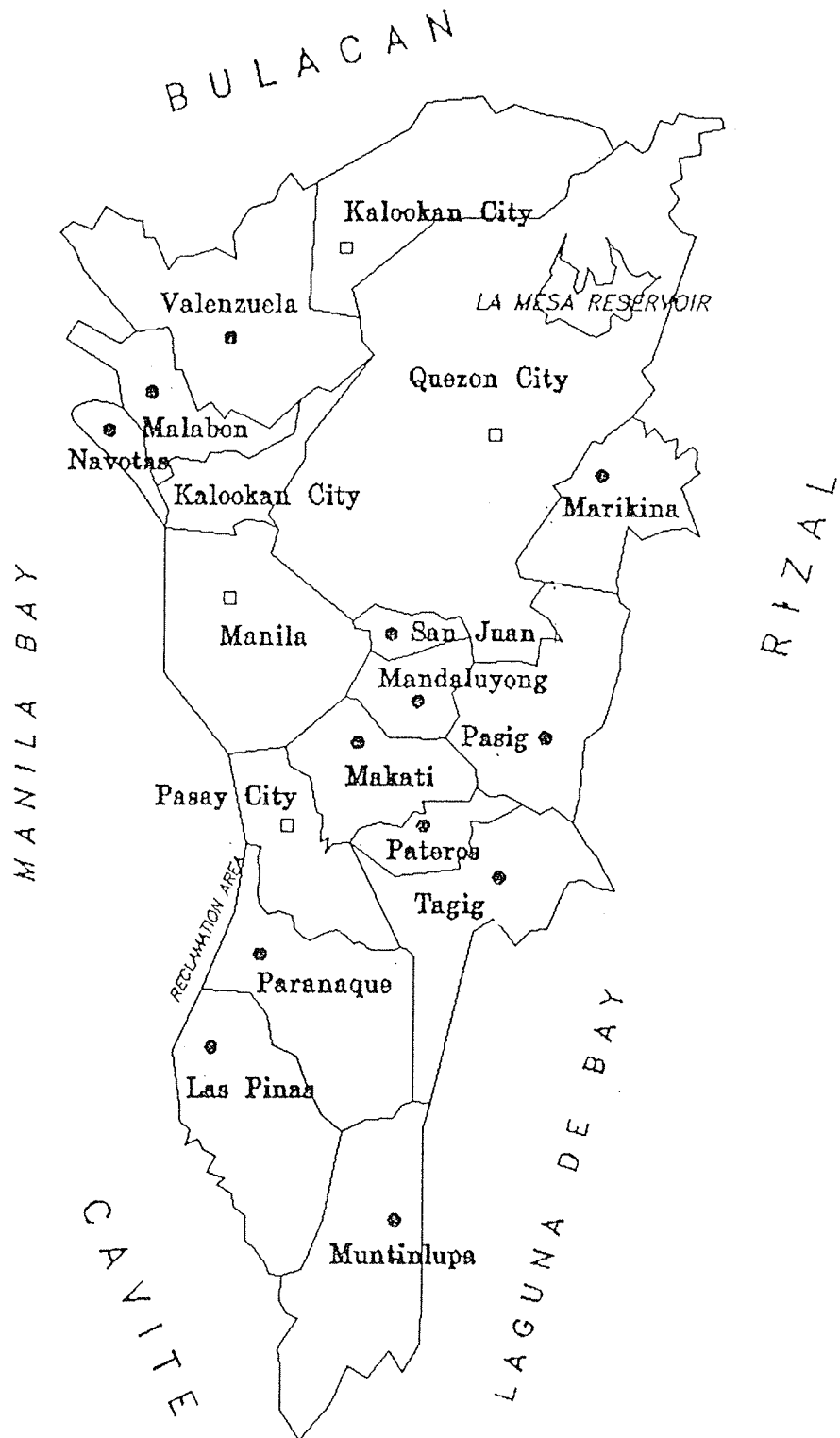
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