

CHAPTER 1

INTRODUCTION

Much of the growing interest in population matters concern the relationship of demographic changes to socio-economic change especially in the less developed countries (LDCs). Specifically, the dynamics of population growth has motivated an increasingly painstaking research on two of its components, namely: fertility and mortality.

It has been asserted that the factors accounting for declines in fertility are much more complex and much less understood than those affecting mortality. That fertility changes have frequently been attributed to the modernization process may not be disputed. Many economic and social changes are subsumed in the term 'modernization', leading different researchers to exercise their own biases in emphasizing particular components of the overall modernization process in explaining fertility change. For instance, they have considered the relationship of various social and economic indicators to variations in fertility from both a macro-level and micro-level perspective. At the macro-level, both longitudinal and cross-sectional data have been utilized in efforts to identify whether there are 'threshold' levels for social and economic variables that must be reached before a country experiences fertility declines. In contrast, at the micro-level, the nature of the relationship between various socio-economic indicators and fertility change within specific populations has been highlighted.

1. Relevance of the Study

The preceding discussion is supportive of the findings put forward by Tabah and Clark (1981) with regard to fertility in the developing world. According to them, the reproductive pattern in LDCs 'presents a great diversity of situations not only in demographic terms but also in terms of economic, social, cultural and political setting.'¹ This study investigates one segment of this diversity - the socio-economic determinants of fertility change in the Philippine setting.

Such a study can be justified by considering the negative impact of rapid population growth which, by itself, poses a serious problem to any country. Rapid population growth has negative implications for the level, rate of growth and distribution of income. It is likely to exacerbate unemployment and problems in the health-nutrition areas, and reduce access to government services such as schools and health facilities. This is not, however, an exhaustive list of the concerned areas since virtually every aspect of the economy is not left unaffected by such a phenomenon. Within the context of a late-developing economy such as the Philippines, perhaps the afore-mentioned four could serve to shed light on the resultant problems of rapid population growth in both the urban and rural sectors.

1.1 On Income and its Distribution

Population growth is one of the many variables which affect the factors of production, and through them, the levels and trends of total and per capita incomes. While it adds to the labour factor of production, it concomitantly diverts resources toward consumption and away from investment. In other words, per capita income as the determinant of saving capacity is a function of total income and total population, which includes both workers and non-workers. Thus, given the levels of labour productivity, the higher the proportion of dependants the lower will be income per head and the savings potential. That is, ceteris paribus, a higher dependency ratio will tend to depress the level of savings or investment, thus reducing the growth of another factor of production - capital. At the household level and with a given income, an increase in the size of the family is associated with a higher consumption expenditure especially on necessities, thereby reducing the level of living and the capacity to save.

The opposing effects of population growth on labour and capital engender a much slower rise in the capital-labour ratio than it otherwise would, and a decline in the ratio of land and natural resources to labour. The decrease in the average size of farms is suggestive of the latter. Consequently, wages fall relatively and perhaps absolutely, aggravating an already skewed distribution of income.² It may also be noted that fertility

rates are higher amongst the poorer segments of the population such that per capita income is comparatively lower in that group, indicating a less equalized income allocation.

1.2 On Employment

Since man is both a consumer and a producer, a large population means that the demand for labour as well as its supply is greater than in a smaller population. The effects of the population size on employment depend mainly on the relation between population and more specifically labour force, on the one hand, and resources and their utilization, on the other. In its capacity as one of the factors of production, population growth automatically implies an increased supply of the labour factor. But it does not by itself bring about higher levels of production or of the demand for labour, let alone create higher employment. What actually happens is that it creates a large dependency burden and unemployment, thereby contributing to the forces responsible for social and economic inequality.

1.3 On Nutrition and Health Care Services

It is generally recognized that population and food are closely interrelated. While food, clothing and shelter are among man's basic needs, food is, to a greater degree, essential for day-to-day survival. Its scarcity leads to, among others, undernutrition and malnutrition and therefore poor health, since there is direct mutual interaction between health and nutrition. The satisfaction of the minimum requirements for food and nutrition is henceforth at the root of the survival and well-being of the individual and society. The food problem, therefore, arising from the effect of the food requirements of a rapidly growing population, has been and continues to be a source of widespread preoccupation. The immediate problem is whether the actual production of food, as opposed to the potential, can satisfy the requirements and effective demand for it created by an increasing population.

An inevitable consequence of a rapidly rising population is the uneven distribution of health care services, in terms of rural-urban allocation. When one looks at the ratios of physicians and hospital beds

to population, for instance, it is usually the case that the predominantly rural regions are less well served relative to the urban areas.³ Concomitantly, most of the population cannot afford private medical care, which is available primarily to the urban middle classes. These problems are aggravated by inadequate environmental sanitation, often leading to the prevalence of communicable, water-borne and even air-borne diseases.

1.4 On Educational Facilities

An accelerated population growth is bound to generate an equally rapidly growing school-age population. While greater educational participation is encouraged, the continued rapid expansion of enrollment is not without its repercussions, financially or otherwise. For instance, total educational expenditures for textbooks, school-buildings and the like would be forced up; and yet, prospects for improving quality would probably be forestalled especially when efforts are concentrated to provide an essential minimum of education for as many children as possible.

With the onset of socio-economic progress and its being sustained, it is expected that the combined pressures of poverty and rapid population growth in developing countries will be eased. This may be brought about by a host of factors, namely: generation of more jobs, the provision of better educational and health care services, the availability of adequate food to meet nutritional requirements, the accessibility of housing facilities, the development of modern public health and sanitation, and other structural changes that would engender a more equal distribution of national income. Underlying such changes would be the motivation for smaller families especially among the lower socio-economic groups. The challenge is, therefore, to create an environment in which these groups will first choose to, and then easily be able to limit family size. Rich (1973, 10) summarily expounds on this idea by stressing that '... the need is not merely to expand the production of goods and services in a way that will markedly improve the well-being of the lower socio-economic groups'.

An attempt to examine some, if not all, of these factors brings to a description of the objective of this study to which we now turn.

2. Objective of the Study

An attempt will be made to investigate the quantifiable socio-economic determinants of fertility change in the Philippines, a middle-income developing economy which is situated in the southeastern portion of the populous Asian continent. The objective of the study is to see whether or not one could test the empirical significance of one of the existing theories of fertility determination, given the available data. The original objective was to conduct this test using Repetto's (1979) model, with some modifications. However, as is discussed in detail in Chapter 4, the available data were insufficient to allow such a test to be fully carried out and several alternative methods were used instead. Moreover, with the analytical construct that could be deduced from the hypothesis-testing to be made, this study expects to draw some implications for policy for the Philippine economy.

3. Limitations of the Study

While there have been significant results generated from this research, there are also some limitations which, had they been possible to rectify, perhaps would have been instrumental in producing more significant outcomes. First and foremost is the paucity of more disaggregated data over time for the variables in the model, making it impossible to conduct a fuller investigation on the following: one, the impact of income distribution on fertility, by ordering (or classifying) families by family income as relatively poor, middle income and wealthy; and two, the effect of nutrition on fertility, by looking into the nutritional status of women/mothers as potential determinant of fecundity (or the capacity to bear children). Consequently, only five of the six hypothesized statements have been tested. Moreover, the mortality and literacy variables have to be supplemented with more or less similar indicators in order to reinforce the empirical value of each of the corresponding hypothesis on the variable.

Second, even though a time series analysis was conducted, the number of observations was deemed insufficient to allow for a more comprehensive examination of the subject under study because of the dearth of

data on hand. Likewise, a cross-sectional analysis was undertaken only for a single year (i.e., 1975) since a more or less complete regional breakdown for the variables in the model (except for nutrition) is available only for that year. As such, only aggregate national figures were applied to the former and regional figures to the latter. It was not possible to verify the hypotheses in terms of urban-rural stratification, the reason being that this disaggregation is lacking in most of the variables.

4. Overview of the Study

The socio-demographic profile of the Philippines is set out in Chapter 2. A discussion of the demographic facts and trends including population growth, life expectancy, population distribution, and age and sex composition is highlighted. A relatively general account of the consequences of the country's rapid population growth is sketched. Some existing policy measures on population and population-related matters are spelled out in tabular form.

A survey of the literature on the income-fertility relation is devoted to Chapter 3. This includes a comprehensive discussion of the theoretical arguments behind the so-called 'unconditional' and 'conditional' links between income and fertility, together with the underlying short-run partial and long-run total effects of the relationship. Although by no means exhaustive, supporting empirical evidence especially with reference to LDCs is provided. And to reinforce the social and economic relevance of the subject under study, the fertility effects of some redistribution policies (e.g., land reform, access to education, medical care and family planning services, the provision of job opportunities as well as benefits to public investments) will be delineated.

The model and its implications, methodological framework and data base are the principal components of Chapter 4. A specification of the simple model that has been constructed based on an existing theory of fertility determination will be outlined. An important feature of this model is the 'non-linear' or 'curvilinear' relationship between income and fertility. A description of the aggregative and disaggregative data to be utilized for the empirical testing of six hypotheses is likewise incorporated.

An analytical description of the empirical results will be tackled in Chapter 5. As the core of this chapter is on the correlates of fertility, the first part takes a preliminary look at a cross-national investigation of some selected socio-economic variables vis-a-vis the total fertility rate (TFR) as the fertility index. The sample, which includes the Philippines, consists of 15 low-income and middle-income less developed countries (LDCs), under World Bank classification, for the year 1975. The second part takes a detailed look into the possible determinants of Philippine fertility over time (i.e., between 1960 and 1977) and across regions for the year 1975. Specifically, this section deals with the significance and empirical value of the estimated basic parameters of the model discussed in Chapter 4.

The implications for policy will be outlined in the concluding chapter, Chapter 6, together with a recapitulation of the principal findings of the study.

Notes to Chapter 1:

1. Tabah/Clark (September, 1981, p.42) in Quadrant (June, 1982).
2. The evidence shows that the real wages in the Philippines have indeed fallen considerably in recent years.
3. This applies to the Philippine case where the rural population comprises almost two-thirds of the total population, and yet it is apparent that in the Metropolitan Manila Area health care services appear to be as much as four times available than in outlying areas.

CHAPTER 2

PHILIPPINE SOCIO-DEMOGRAPHIC SITUATION: A PROFILE

1. Introduction

Probing into the socio-economic determinants of reproductive behaviour in any country necessitates an initial exploration of that country's social and demographic facts and trends. Basically, the principal variable is the country's population, specifically its growth in relation to social and economic realities. This chapter is an attempt to expound on this within the context of the Philippine setting, which is characterized by a blend of cultures upon which is superimposed more than four centuries of Spanish rule and nearly fifty years of American colonial rule.

Hardly any facet of the Filipino way of life is untouched by the rise and fall of their birth and death rates. The Philippine economy, environment, education, health, family life, government effectiveness, life style - population change affects all these and more. The 'population issue' may have different interpretations as, for example, the pressure of numbers reaching out to occupy open spaces; the concentration of people in cities and large urban centres; the impact of rapid growth and distribution of population upon essential services; the disproportionate distribution of the young in relation to the productive adult members of the population; and the control over one's life with regard to the reproduction of new life.

Looking into these population dimensions provides a springboard for the analytical portion of the study.

2. Demographic Facts and Trends

2.1 Population Growth

Categorized by the World Bank as a middle-income developing country, the Philippines today is characterized by a dualistic economy where the traditional and modern sectors co-exist with the aim of attaining 'sustainable economic growth, equitable distribution of the fruits of development and total human development',¹ for its 49.5 million population.²

An estimated half a million people were living in the Philippines when the archipelago was discovered by Ferdinand Magellan in 1521. Almost four centuries later, the population was estimated at 7.6 million when the first census of the country's inhabitants was conducted in 1903. In 1948, two years after the country became a fully independent republic, the total population was about 19.2 million. Within this time span, the average annual growth rates of the population hovered around 2.0 per cent. Since 1948, three more censuses have been conducted, in 1960, 1970 and 1975, and the population recorded stood at 27.1 million, 36.7 million and 42.1 million, respectively. The population grew annually at approximately 3.0 per cent on the average. While the average growth rate declined to 2.79 per cent per annum between 1970 and 1975, this is still one of the highest population growth rates in the world. This 'population explosion' is an offshoot of a dramatic reduction in mortality coupled with a high but slowly declining fertility.

The most striking difference between the demographic experience of the West during the 19th century and that of the non-industrialized nations such as the Philippines in the 20th century is that, while in the Western countries the process of declining death rates was a relatively protracted one spread over a period of 50 to 100 years, the recent fall in the death rates of the developing countries has been much more rapid (U.N./ESCAP, 1978). In the Philippines, for instance, the rapid decline in the death rate was largely a consequence of technological advances in the prevention and control of diseases, and the growth and expansion of

medical services. The occurrence of this spectacular decline preceded any sustained economic and social development.

2.2 Life Expectancy

There has been an increasing trend in expectation of life at birth for males and females over the years from 1902 to 1970, from a level of 12.7 in 1902 to 57.6 in 1970; it improved to 60.0 in 1976 and 62 years in 1980 (Table 2.1). Female life expectancy at birth was, on balance, higher than that for males. By 1970, for example, the female value (60.9) was about 6 years higher than the male value (55.2). Whatever the reason is, this development implies that as further improvements in life expectancies are attained, females tend to benefit more than males.

Table 2.1 Trends in life expectancy at birth for both sexes, males and females, 1902-1970; 1976; 1980

Year	Life expectancy at birth		
	Both sexes	Male	Female
1902	12.70	11.54	13.92
1918	25.61	25.17	26.07
1938	46.22	44.80	47.72
1948	51.17	48.81	53.36
1960	53.30	51.17	55.00
1970	57.60	55.24	60.89
1976	60.00	-	-
1980	62.00	-	-

Source: Figures for 1902-1970 are from ESCAP Country Monograph Series, No.5, 1978. The 1976 figure is from the Five-Year Philippine Development Plan, 1978-1982, while the figure for 1980 is culled from the 1980 Philippine Development Report.

2.3 Population Distribution

2.3.1 Rural-Urban Distribution

The dual nature of the Philippine economy accounts for its rural-urban setting and the preponderance of the rural sector. However, while it is still a predominantly rural economy, the proportion of urban population has been increasing since the turn of the century, for instance, from 13.1 per cent in 1903 to 32.7 per cent in the early 1970s. Correspondingly, the proportion of rural population diminished from 86.9 per cent to 67.3 per cent during the same period. The pattern of urban growth has been comparatively higher than in the other ASEAN countries, with the exception of Singapore.³ The Metropolitan Manila Area (MMA) accounts for over a third of the urban population, but there are a number of rapidly growing secondary cities. Much of the population growth in the urban centres may be ascribed to migration from rural areas in search of more productive employment in the former. More specifically, it is the expected higher wage in the urban areas, rather than the actual wage earned, that attracts the migrants, particularly the young with some education (The World Bank, 1976).

Notwithstanding this development, it is significant to note that the country's pace of urbanization has slowed down, on the average, since the 1950s. This is indicative of the phenomenon that rapid population growth was not necessarily accompanied by rapid urbanization as was commonly thought. What actually occurred was an increasing urban concentration as manifested by the greater dominance of Metropolitan Manila, which comprised 37 per cent of the total urban population as of 1970.⁴ This implies that the expansion of other urban centres has been relatively slow. This development has brought about greater income disparities and a sizeable number of the urban population lives in absolute poverty characterized by inadequate housing and limited or no access to water supplies and sanitation facilities, electricity, and urban transportation.⁵

While the highest growth rate of the urban population occurred during the years following World War I, the greatest growth in rural population took place after World War II. (Table 2.2). This engendered a rural

Table 2.2 Growth rates of urban-rural population,
1903-1975

Sector	1903- 1918	1918- 1939	1939- 1948	1948- 1960	1960- 1970	1970 1975
Urban	1.64	5.03	4.26	3.97	4.01	2.66
Rural	1.96	1.66	1.17	2.70	2.56	2.85
Total	1.92	2.22	1.91	3.06	3.01	2.79

Source: ESCAP Country Monograph Series, No.5, 1978, p.22

population of almost three-quarters of the total Philippine population. Although this proportion has been declining since the late 1940s, it is observed that in the Philippines, as in other developing countries, the natural rate of population growth is higher in rural than in urban areas. This observation can be substantiated by the figures revealed in Table 2.3. It can be seen from the table that in 1968 and 1973, for instance, fertility was higher among rural women than urban women in all ages except in the age-group 45-54 in 1968 where fertility of women in other urban areas was slightly more than rural women of the same age group. It may be noted that the difference between rural and urban fertility for the age group 35-44 is substantial. Part of the reason being that rural women tend to marry at an early age than urban women. In 1968, for example, nearly 45% of the rural married women had married before age 20, while only 39% of the urban married women had married before they were 20 years old (de Guzman in ESCAP Country Monograph Series, 1978). The apparent income disparity noted in the urban centres is more pronounced in the rural sector where production is dominated by farming, fishing and forestry. Due to the smallness of farms and the pervasiveness of tenancy, agricultural productivity has been low coupled with a high underemployment because of limited economic activity.

Table 2.3 Fertility ratios of women aged 15-64 years by age group
and residence, 1968 and 1973

Age group	1968				1973			
	All Areas	Metropolitan Manila	Other Urban	Rural	All Areas	Metropolitan Manila	Other Urban	Rural
15-19	1.09	0.56	0.70	1.29	0.85	0.83	0.76	0.88
20-24	1.83	1.62	1.79	1.87	1.85	1.40	1.79	1.89
25-29	3.17	2.89	2.91	3.27	3.14	2.10	3.05	3.25
30-34	4.58	3.42	4.36	4.75	4.48	3.70	4.02	4.79
35-39	5.68	5.37	5.14	5.94	5.69	4.38	5.05	6.17
40-44	6.26	5.71	6.09	6.37	6.54	4.94	6.10	6.86
45-54	6.09	5.91	6.30	6.04	6.23	5.74	5.99	6.39
55-64	5.92	5.80	6.07	5.89	6.06	5.52	5.86	6.26

Source: ESCAP, 1978

2.3.2 Regional Distribution

A distinct feature of the Philippines from the other ASEAN member countries is the division of the archipelago, starting in 1975, into twelve (12) administrative regions from the three big island groups, namely: Luzon in the north, Visayas near the centre, and Mindanao in the south (Table 2.4). These regions in turn consist of 72 provinces, 60 cities, 1,445 municipalities and 42,000 barangays.⁶

Table 2.4 The twelve (12) major administrative regions

Region No.	Name
1	Ilocos Region
2	Cagayan Valley Region
3	Central Luzon Region
4	Metropolitan Manila Area (or National Capital Region)
4-A	Southern Tagalog Region
5	Bicol Region
6	Western Visayas Region
7	Central Visayas Region
8	Eastern Visayas Region
9	Western Mindanao
10	Northern Mindanao
11	Southern Mindanao
12	Central Mindanao

Source: Five-Year Philippine Development Plan, 1978-1982

It is noted that in 1975 the largest proportion of the country's population, 12.6 per cent, was concentrated in the Southern Tagalog region which contained only about 16 per cent of the total land area, the latter being 300,000 sq. km. Combining Southern Tagalog with Central Luzon and

Metropolitan Manila would account for 23.7 per cent of the land area and contained within them over 34 per cent of the country's population in that same year. The three Visayan regions together comprised a further 24 per cent of the population, while another 22 per cent lived in the whole of Mindanao during the same reference period. Undoubtedly, the greatest concentration of population in relation to land area took place in Metropolitan Manila where more than 11 per cent of the country's population dwell in very much less than 1 per cent of the total land area. The reason being that the region serves as the nation's commercial, industrial and cultural centre.

On balance, regional economic differentials persist leading to some kind of spatial mobility. In the Philippines, for example, its volume and direction exhibit a positive correlation with the level of development prevailing from region to region. Between 1960 and 1970, intercensal migration has revealed two dominant forces generating the inter-regional migration streams, i.e., an 'urban pull' as exhibited by the greater volume of in-migration and higher positive net migration rate in the more urbanized regions, and an 'agricultural productivity potential pull' as manifested by the volume and rate of migration characterizing the frontier regions of Mindanao.⁷

2.4 Age and Sex Composition

2.4.1 Sex Composition

A common measure of the sex composition of the population is the sex ratio or the number of males per 100 females. The sex ratios by age groups for the various census years from 1903 to 1970 give an indication that males exceed females in all censuses up to 1960; the 1970 census, however, counted more females than males although this appears somewhat spurious (Table 2.5). The sex ratio increased gradually from 100.1 in 1903 to 101.6 in 1939. It declined to 100.7 in 1948 perhaps largely because of the low sex ratios observed in this year especially as regards the age groups 20-39 years as a result of the second World War.

Table 2.5 Sex ratio by age-group, 1903-1970

Age-group	1903	1918	1939	1948	1960	1970
All ages	100.1	100.3	101.6	100.7	101.8	99.0
0-4	101.8	101.1	104.4	106.0	106.1	103.3
5-9	104.4	102.8	105.2	106.1	106.6	103.7
10-14	106.9	99.8	105.1	105.3	105.8	102.8
15-19	89.7	94.8	93.4	94.2	96.9	94.6
20-24	77.4	94.0	99.4	93.7	94.4	94.0
25-29	94.4	96.2	96.7	92.0	95.1	93.5
30-34	102.6	98.6	98.2	94.7	96.7	94.7
35-39	119.4	99.5	105.5	101.3	96.8	98.2
40-44	100.6	104.5	98.3	98.4	98.9	97.2
45-49	116.3	109.7	112.3	110.3	103.3	95.4
50-54	90.5	109.4	93.3	91.3	106.0	97.7
55-59	121.0	103.3	107.1	107.0	107.2	99.5
60-64	99.8	102.3	109.8	103.1	116.4	103.0
65-69	114.6	113.1	118.3	111.9	99.6	97.3
70-74	94.5	112.8	93.2	98.3	104.6	106.3
75-79	105.3	110.9	96.6	111.4	102.7	92.3
80 & over	88.0	112.2	80.4	91.1	93.4	83.7

Source: ESCAP, 1978

The slight preponderance of females over males in 1970 appears dubious for four reasons. First, the 1948 census undertaken after the end of World War II still showed an excess of the number of males over the number of females in the total population. Second, the overall sex ratio of 101.8 in 1960 was the highest ever recorded despite the improvement of mortality conditions during the 1950s, thereby narrowing the difference in the number of male and female deaths. Third, differential emigration could not be a plausible explanation because females in the Philippines are as migratory as their male counterparts. Fourth, the 1975 census recorded a

sex ratio of 101.0 which is reflective of the earlier trend, thus rendering the sex ratio for 1970 suspect. The latter could be the result of either an under-enumeration or an over-enumeration of females.⁸

2.4.2 Age Composition

The age structure of a population or the distribution of the population by age groups is the consequence of past levels and trends of fertility, mortality and migration. It is also instrumental in affecting considerably social relationships within a community, aside from determining the demand for educational facilities, health services, food and housing.

While there have been no significant changes in the distribution of the population by five-year age groups since the 1918 census, marked variations have been observed with regard to 10-14, 25-29 and 50-74 age groups (Table 2.6). Classifying the population by three broad age groups, namely, 0-14, 15-64 and 65 and over shows that children aged 0-14 constitute a large proportion of the total population (bottom of Table 2.6). This is indicative of a young population age structure. This proportion increased by 6.2 percentage points from 39.5 per cent in 1903 to 45.7 per cent in 1960 and 1970, but a slight reduction to 44.0 per cent was registered for the period 1970 to 1975. Perhaps the most important implication of this reduced proportion is the easing of the dependency burden as a result of a corresponding increase in the proportion of the working-age population. The proportion in the age-group 15-64 years experienced a decline from 57.2 per cent in 1903 to 51.5 per cent in 1970. Similarly, the proportion aged 65 years and over decreased from 3.3 per cent to 2.7 per cent in 1960, slightly increasing thereafter to 2.8 in 1970.

It has been observed that the deceleration in the death rate has a relatively minimal effect on age composition. Likewise, for the volume of net migration. Meanwhile, the high birth rate in the Philippines has kept the proportion of young children in the population at a level believed to be one of the highest in the world in the late 60s to the early 70s.⁹

Table 2.6 Percentage distribution of the population by
age-group, 1903-1970 census years

Age group	Percentage of total population in census years					
	1903	1918	1939	1948	1960	1970
All ages	100.0	100.0	100.0	100.0	100.0	100.0
0-4	15.1	16.9	16.3	15.6	16.9	15.9
5-9	13.7	15.5	15.6	15.3	16.1	16.1
10-14	10.7	11.8	11.2	13.3	12.7	13.7
15-19	10.0	9.9	10.4	10.7	10.4	11.1
20-24	8.0	9.3	9.5	9.2	9.1	8.6
25-29	9.1	7.8	8.4	7.8	7.2	6.7
30-34	7.3	6.2	5.7	5.8	5.7	5.7
35-39	6.1	5.1	5.4	5.9	5.3	5.2
40-44	4.8	4.4	3.8	3.9	4.1	4.0
45-49	3.6	3.6	3.6	3.6	3.8	3.5
50-54	3.2	2.8	2.6	2.3	2.6	2.8
55-59	2.5	2.4	2.0	1.8	1.8	2.2
60-64	2.6	1.9	2.2	1.7	1.6	1.7
65-69	1.3	1.2	1.2	1.0	0.8	1.0
70-74	1.0	0.7	0.9	0.9	0.8	0.8
75-79	0.3	0.4	0.4	0.4	0.4	0.4
80 & over	0.7	0.1	0.9	0.8	0.7	0.6
0-14	39.5	44.2	43.1	44.2	45.7	45.7
15-64	57.2	53.4	53.5	52.7	51.6	51.5
65 & over	3.3	2.4	3.4	3.1	2.7	2.8

Source: ESCAP, 1978

2.4.3 Median Age

The Philippine population has often been described as young since more than 40 per cent belong to the 0-14 age group. Indeed, its age and sex compositions from 1903-1970 indicate that it is not only young but even getting younger. The median age of the population dropped from 20.2 years in 1903 to 17.1 in 1960 to 16.9 in 1970. Although in 1975 it has reverted to the 1960 level (i.e., 17.1 years), the median age shows that, under favourable mortality conditions, more and more people would survive to family- and household-forming ages. The number of would-be mothers will also be much larger than that before them, and by itself constitutes a potential for more population increases.¹⁰

2.4.4 Dependency Burden

A significant feature of rapid population growth is the resultant problem of dependency burden. The ratio of the size of the dependent age groups (i.e., children under 15 years and those aged 65 years and over) to the size of the working population (or persons in the 15-64 age category) provides a rough measure of the burden of dependency which age structure imposes on a population. When the young and the old age groups are disproportionately large, the burden of supporting these two unproductive ends of the age scale falls on the relatively small proportion of gainfully employed.

A high level of fertility coupled with declines in infant and child mortality have brought about an almost continuous increase in the total dependency ratio from 75.0 per hundred persons aged 15-64 years in 1908 to 94.3 in 1970 (Table 2.7). This has slightly decelerated to 88.0 in 1975.¹¹ It may be noted, however, that the true dependency burden is considerably higher than is shown by the dependency ratios since not all persons of working age are actually employed. The 1970 population census, for instance, revealed that only about 57 per cent of persons aged 15-64 years were employed; while the remaining 43 per cent were either unemployed, or full-time students or housekeepers, etc. Therefore, a substantial proportion of persons aged 15-64 years are not at work and should then be considered as dependents even if they belong to the working age group.

Table 2.7 Dependency ratios, 1903-1975 census years

Census year	Dependency ratios		
	Youth	Old-Age	Total
1903	69.3	5.7	75.0
1918	82.6	4.6	87.2
1939	80.3	5.8	86.1
1948	83.8	6.0	89.8
1960	88.6	5.3	93.9
1970	88.8	5.5	94.3
1975	-	-	88.0

Source: Figures for 1903-1970 are from ESCAP, 1978; that for 1975 is from the Plan, 1978-1982.

3. Assessing the Effects of Philippine Population Growth

The present chapter, by concentrating on the realities of Philippine population growth, has addressed itself to some themes in the process of the country's development: to what extent has population increase placed considerable pressure on the limited resources of the Philippines? Have there been measures passed by the authorities to combat the consequences of rapid population growth? Are there any prospects for change in the patterns of demand resulting from a more pronounced fertility reduction, if at all?

An answer to the first question could perhaps be discerned from Chapter 1 where the justifications for the research are spelled out. Table 2.8 in the following section may well be a response to the second enquiry as it presents a listing of existing policy measures which are aimed at easing the burdens posed by income disparities as a result of accelerated population growth. The answer to the third query is yet to be known depending on whether or not there is an 'adequate' climate for a precipitous fertility decline. This may be ascertained from the empirical tests that are proposed to be done and which Chapter 5 is concerned with.

4. Existing Policy Measures¹²

Being at the helm of the development mechanism, the government is an indispensable force towards the realization of development objectives and strategies, the latter being counter-measures to problems that the country has to grapple with. The implementation of strategies, however, is anchored on policy pronouncements which are specific to these problems. Corresponding to the afore-mentioned challenges that the country is confronted with as a consequence of its phenomenal population growth during the past decades are a number of policy measures which are deemed necessary to rectify the 'imbalances'. Table 2.8 provides a summary of the mechanisms behind the policy measures in the sectors under consideration, viz., population and family planning, labour and employment, health and nutrition, education, housing and human settlements, and agrarian reform.

Complementing the specified policy pronouncements is a situational overview of what has actually happened over the past three decades or so. This can be gleaned from Table 2.9 by way of some selected indicators from the afore-mentioned sectors. Despite the apparent incompleteness of the data for the benchmark years, it may be mentioned that comparatively higher figures would be registered only if the common denominator which, in this case, is population, were lower.

5. Summary

The focus of this chapter has been to present an overview of the Philippine socio-demographic situation - the facts and trends, the resultant problems and some remedial policy measures. While it would take some time to rectify the so-called imbalances arising from the country's existing available and non-obtainable resources, there is room for optimism so long as sincere and collaborative efforts between the government and its development machinery, on the one hand, and the recipients of the fruits of development, on the other, are not wanting.

TABLE 2.8

EXISTING POLICY MEASURES

SECTOR	POLICY MEASURE	MECHANISM
1. Population and Family Planning		<ul style="list-style-type: none"> * a non-coercive approach premised on the respect for religious beliefs and values of married couples * a 'cafeteria' approach where access to all programme methods is facilitated and corresponding information on each method is readily available * limitation of family size via disincentives, e.g., maternity benefits in the organized sector to terminate with the fourth child; tax exemptions to be limited to the fourth child * industrial establishments with 300 or more workers to provide free family planning services to their workers and, where possible, bonus-incentive schemes for family planning
2. Labour and Employment		<ul style="list-style-type: none"> * a progressive and equitable employment system via promotion of full employment; manpower development; labour protection and the assurance of workers' rights to self-organization, remunerations and favourable working conditions * granting of incentives and privileges to business enterprise to foster utmost labour utilization in industry * apprenticeship and leadership programmes to promote skills, training and labour absorption in industries * temporary export of manpower to ease unemployment and under-employment as well as generate foreign exchange * the right to collective bargaining, security of tenure, and just and humane conditions of work
3. Health and Nutrition		<ul style="list-style-type: none"> * identification of priority groups to facilitate outreach of nutritional activities (viz., infants and pre-school children; pregnant women and nursing mothers; the aged; those engaged in heavy manual labour) * development of an IEC (information, education and communication) component to stimulate demand and encourage the utilization, improved processing, efficient marketing, distribution and storage of low-cost nutritious foods * preventive and rehabilitative health care through compulsory basic immunization of infants and children below eight years of age * primary health care system as an approach to the delivery of basic health services, where community participation and inter-agency collaborative efforts are encouraged * expanded medical care insurance programme to include not only those in the organized sectors but those in the unorganized sectors as well (i.e., the unemployed and the self-employed)
4. Education		<ul style="list-style-type: none"> * equalization of educational opportunities and promotion of universal literacy through a system of free public elementary education and, where finances permit, a free secondary education as well * granting of state scholarships to poor but deserving students in the fields of science, arts and letters * provision of a study-now-pay-later plan * minimization of the cost of education by way of reprinting textbooks locally and regulating the increase of tuition fees in private schools * upgrading the quality of education via a national college entrance examination (NCEE) * professionalization of teachers and institution of training programmes for them

TABLE 2.8 cont'd

EXISTING POLICY MEASURES

SECTOR	POLICY MEASURE	MECHANISM
4. Education (cont'd)		* promotion of functional literacy and numeracy in the non-formal educational system
5. Housing and Human Settlements		<ul style="list-style-type: none"> * adequate housing for low- and middle-income families * human settlements approach to housing in both rural and urban communities via optimum land use, adequate shelter, environmental protection, utilization of appropriate technology and interdependence among self-reliant communities * expropriation (upon payment of just compensation) of private property for socialized housing * urban land reform via regulation and management of urban land
6. Agrarian reform		<ul style="list-style-type: none"> * social transformation and wealth redistribution through a programme of land transfer and liberation of farm-tillers from the bondage of tenancy and poverty * extension of agricultural credit to small farmers using land transfer certificates as collateral for loans * training and marketing schemes to improve farmer-productivity and incomes

TABLE 2.9
SELECTED SOCIO-ECONOMIC INDICATORS

Indicator	Year			
	1960	1970		1980
1. % of MWRA using contraceptives (or current users)	2	2.2 (1977)		36.8
2. Employment (millions)				
Agriculture	5.6	6.3 (1972)	7.8 (1979)	9.1
Non-agriculture	3.5	5.7 (1972)	8.6 (1979)	8.1
3. Life expectancy	53.3	57.6	58.7 (1972)	61.6
4. Caloric intake as % of requirement (1978)	88.6 (1972)			93.2
5. Population per physician	3,222 (1973)			
6. Population per hospital bed	797 (1973)			
7. Adult literacy (%) (10 years and over)	83.40	84.14 (1972)		88.98
8. Enrollment (millions)	(1972)			
Elementary		7.0		8.5
Secondary		1.9		2.7
Tertiary		0.7		1.2
TOTAL		9.6		12.4
9. Household with access to electricity (population served) %	28	(1972)		36 (1979)
10. Access to potable water supply (population served) %	39	(1972)		43
11. TOTAL Housing Programme (in dwelling units)				14,563
construction of new units				29,924 (1981)
upgrading of marginal settlements				7,294
development of sites & services				4,192
12. Beneficiaries of the National Housing Programme				12,633 (1981)
13. Agrarian Reform Programme				3,077
No. of Certificates of Land Transfer issued	423	(1972)		7,464 (1981)
No. of tenant recipients	423	(1972)		87,378
No. of hectares	682	(1972)		179,544 (1981)
				523,163
				551,173 (1981)
				374,196
				417,333 (1981)
				624,723
				646,691 (1981)

Notes:

- 1970 and 1977 figures from World Bank. 1980. World Development Report; 1980 figures from NEDA. 1980. Philippine Development Report (PDR); no figures for 1960 since nationwide Family Planning (FP) programme commenced only in 1970.
- 1960 figures from ILO. 1974. Sharing in Development in the Philippines; 1972 and 1979 figures from PDR (1980); 1980 figures from PDR (1981).
- 1960 and 1970 figures from ESCAP. 1978. Country Monograph Series, No. 5; 1980 figure from PDR (1981).
- 5, 6. 1973 figures from World Bank. 1976. The Philippines: Priorities and Prospects for Development.
- 4, 7, 8, 9, 10, 11, 12, 13. Figures from PDR (1981).

Notes to Chapter 2:

1. Philippine Development Plan, 1983-87; Goals, Strategies and Policies (January 1982), p.5.
2. This figure is as of 1981.
3. The proportion of the population in urban areas of the other three countries in the ASEAN region in 1977, for example, was: 18.2% in Indonesia; 28.8% in Malaysia; and 13.2% in Thailand. (Source: U.N. Demographic Yearbook.)
4. From the World Bank Country Economic Report, 1976. 'The Philippines: Priorities and Prospects for Development'.
5. Ibid.
6. A barangay is the smallest administrative unit in the Philippines consisting of an average of approximately 300 families.
7. From Population, Resources and Environment for the Philippine Future (PREPF). 1980. 'Probing our Futures: The Philippines - 2000 A.D.', p.37.
8. International Labour Organization (ILO), 1974. 'Sharing in Development in the Philippines', p.389.
9. ESCAP Country Monograph Series, No.5, 1978, p.36.
10. Ibid.
11. Five-Year Philippine Development Plan, 1978-1982, p.198.
12. This section draws heavily from NEDA, 1980. 'Social Development: The Philippine Approach'.