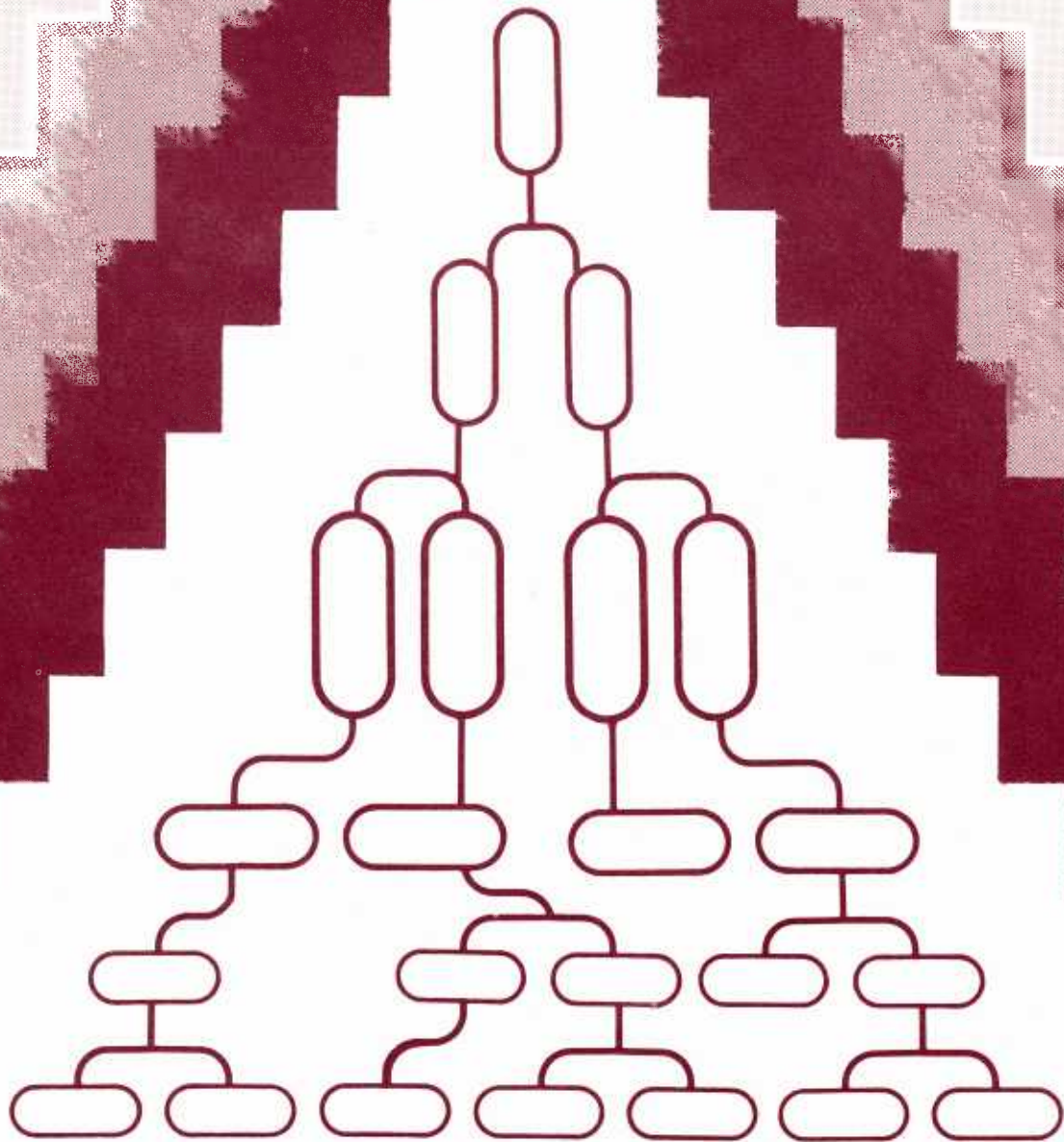


CASE STUDIES IN POPULATION POLICY:

# Malaysia



UNITED  NATIONS

Department of International Economic and Social Affairs

Population Policy Paper No. 14

C A S E S T U D I E S I N P O P U L A T I O N P O L I C Y :

---

# Malaysia



U N I T E D N A T I O N S

New York, 1987

NOTE

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The terms "country" and "area" as used in the text of this report also refer, as appropriate, to territories, cities or areas.

ST/ESA/SER.R/80

Copyright © United Nations 1987  
All rights reserved  
Manufactured in United States of America

## PREFACE

This publication is one in a series of country case studies being prepared by the Population Division of the Department of International Economic and Social Affairs of the United Nations Secretariat that focus on selected issues in the formulation, implementation and evaluation of population policies in various developing and developed countries.

The objective of the series is to present broadly comparative, issue-oriented case studies that illustrate the myriad approaches countries have pursued in implementing, formulating and evaluating their population policies. The specific issues addressed include the manner by which policies, programmes and targets aim to influence demographic variables directly or indirectly, how they have been formulated and the extent to which they have been implemented in relation to one another and to other social, economic and political goals. Emphasis is placed on the problems encountered and the strategies undertaken to resolve these problems. It is hoped that the series will be useful to persons responsible for population programmes and policies and in general for the sharing of experiences among countries in the formulation, implementation and evaluation of population policies.

The population policy overview for Malaysia presented on pages 1 through 4 of this publication is taken from World Population Policies, volume II (forthcoming). The main body of the report was drafted by Hamid Arshat, Ramli Othman and Tey Nai Peng of the National Population and Family Development Fund, Kuala Lumpur, as consultants to the United Nations. The views and opinions expressed in this report are those of the consultants and do not necessarily reflect those of the United Nations. The estimates and projections presented in the population policy overview may differ from those presented in the main body of the publication due to demographic assessments and subsequent adjustments and differences of time reference. Special acknowledgement is due to the United Nations Fund for Population Activities for its support of project INT/84/PO8, which made possible the preparation of this publication.

This is the first case study to be issued in this series.

## CONTENTS

	<u>Page</u>
Preface .....	iii
Explanatory notes .....	vi
POPULATION POLICY OVERVIEW .....	1
INTRODUCTION	
A. Historical background .....	6
B. Socio-economic conditions .....	7
I. DEMOGRAPHIC SETTING	
A. Historical demographic trends .....	9
B. Current demographic trends .....	15
II. REVIEW OF THE POPULATION POLICY SITUATION UP TO 1984	
A. Population policy formulation .....	23
B. Population policy implementation .....	26
C. Population policy evaluation .....	29
III. POPULATION POLICY AND PROGRAMME DIRECTIONS SINCE 1984	
A. Rationale for the new population policy .....	34
B. Long-term demographic target .....	35
C. Reaction to the new population policy .....	35
D. Co-ordination and monitoring mechanisms .....	37
IV. CONCLUSIONS .....	40
REFERENCES .....	42
<u>Annex</u>	
GLOSSARY .....	44

LIST OF TABLES

	<u>Page</u>
1. Population of Malaysia, 1817-1980 .....	10
2. Rates of population change, Malaysia, 1911-1980 .....	11
3. Foreign-born population by ethnic group, percentage, Peninsular Malaysia, 1911-1980 .....	11
4. Crude birth rates, crude death rates and natural increase, Peninsular Malaysia, 1957-1985 .....	14
5. Median age at first marriage for selected birth cohorts by sex and ethnic group, Peninsular Malaysia, 1980 .....	21
6. Targeted and actual crude birth rates and number of new acceptors, Peninsular Malaysia, 1966-1985 .....	29
7. Trends in family planning knowledge, attitudes and practices (KAP), Peninsular Malaysia .....	32
8. Total fertility rate used in population projections to achieve 70 million population .....	36

LIST OF FIGURES

I. Crude birth rates and crude death rates, Peninsular Malaysia, 1957-1985 .....	16
II. Age-sex pyramid of the population of Malaysia, 1980 .....	18
III. Total fertility rates by ethnic groups, Peninsular Malaysia, 1957 and 1985 .....	20
IV. Organizational structure of the National Population and Family Development Board .....	38

## EXPLANATORY NOTES

Symbols of United Nations documents are composed of capital letters combined with figures.

Reference to "dollars" (\$) indicates United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

Annual rates of growth or change refer to annual compound rates, unless otherwise stated.

A hyphen between years (e.g., 1984-1985) indicates the full period involved, including the beginning and end years; a slash (e.g., 1984/1985) indicates a financial year, school year or crop year.

A point (.) is used to indicate decimals.

The following symbols have been used in the tables:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (---) indicates that the amount is nil or negligible.

A hyphen (-) indicates that the item is not applicable.

A minus sign (-) before a number indicates a deficit or decrease, except as indicated.

Details and percentages in tables do not necessarily add to totals because of rounding.

22.4 Malaysian ringgit = US\$ 1 as of 1985.

POPULATION POLICY OVERVIEW

DEMOGRAPHIC INDICATORS	CURRENT PERCEPTION																					
<p><b>SIZE/AGE STRUCTURE/GROWTH</b></p> <table> <tr> <td>Population:</td> <td style="text-align: center;"><u>1985</u></td> <td style="text-align: center;"><u>2025</u></td> </tr> <tr> <td>(thousands)</td> <td style="text-align: center;">15 557</td> <td style="text-align: center;">26 844</td> </tr> <tr> <td>0-14 years (%)</td> <td style="text-align: center;">37.8</td> <td style="text-align: center;">21.4</td> </tr> <tr> <td>60+ years (%)</td> <td style="text-align: center;">5.7</td> <td style="text-align: center;">14.4</td> </tr> <tr> <td>Rate of:</td> <td style="text-align: center;"><u>1980-85</u></td> <td style="text-align: center;"><u>2020-25</u></td> </tr> <tr> <td>growth</td> <td style="text-align: center;">2.4</td> <td style="text-align: center;">0.7</td> </tr> <tr> <td>natural increase</td> <td style="text-align: center;">24.5</td> <td style="text-align: center;">7.3</td> </tr> </table>	Population:	<u>1985</u>	<u>2025</u>	(thousands)	15 557	26 844	0-14 years (%)	37.8	21.4	60+ years (%)	5.7	14.4	Rate of:	<u>1980-85</u>	<u>2020-25</u>	growth	2.4	0.7	natural increase	24.5	7.3	<p>The present rate of population growth is considered <u>satisfactory</u>.</p>
Population:	<u>1985</u>	<u>2025</u>																				
(thousands)	15 557	26 844																				
0-14 years (%)	37.8	21.4																				
60+ years (%)	5.7	14.4																				
Rate of:	<u>1980-85</u>	<u>2020-25</u>																				
growth	2.4	0.7																				
natural increase	24.5	7.3																				
<p><b>MORTALITY/MORBIDITY</b></p> <table> <tr> <td></td> <td style="text-align: center;"><u>1980-85</u></td> <td style="text-align: center;"><u>2020-25</u></td> </tr> <tr> <td>Life expectancy</td> <td style="text-align: center;">66.8</td> <td style="text-align: center;">75.6</td> </tr> <tr> <td>Crude death rate</td> <td style="text-align: center;">6.5</td> <td style="text-align: center;">6.6</td> </tr> <tr> <td>Infant mortality</td> <td style="text-align: center;">30.1</td> <td style="text-align: center;">9.6</td> </tr> </table>		<u>1980-85</u>	<u>2020-25</u>	Life expectancy	66.8	75.6	Crude death rate	6.5	6.6	Infant mortality	30.1	9.6	<p>The conditions of health and levels of mortality are regarded as <u>unacceptable</u>. Concern has been expressed especially for preventable diseases that are communi- cable or related to the environment, such as malaria and tuberculosis.</p>									
	<u>1980-85</u>	<u>2020-25</u>																				
Life expectancy	66.8	75.6																				
Crude death rate	6.5	6.6																				
Infant mortality	30.1	9.6																				
<p><b>FERTILITY/NUPTIALITY/FAMILY</b></p> <table> <tr> <td></td> <td style="text-align: center;"><u>1980-85</u></td> <td style="text-align: center;"><u>2020-25</u></td> </tr> <tr> <td>Fertility rate</td> <td style="text-align: center;">3.9</td> <td style="text-align: center;">1.9</td> </tr> <tr> <td>Crude birth rate</td> <td style="text-align: center;">30.9</td> <td style="text-align: center;">14.0</td> </tr> <tr> <td>Contraceptive prevalence rate</td> <td colspan="2" style="text-align: center;">51.0 (1984)</td> </tr> <tr> <td>Female mean age at first marriage</td> <td colspan="2" style="text-align: center;">23.5 (1980)</td> </tr> </table>		<u>1980-85</u>	<u>2020-25</u>	Fertility rate	3.9	1.9	Crude birth rate	30.9	14.0	Contraceptive prevalence rate	51.0 (1984)		Female mean age at first marriage	23.5 (1980)		<p>Fertility is considered <u>satisfactory</u>. The Government believes that the present rate of fertility decline must be arrested or decelerated.</p>						
	<u>1980-85</u>	<u>2020-25</u>																				
Fertility rate	3.9	1.9																				
Crude birth rate	30.9	14.0																				
Contraceptive prevalence rate	51.0 (1984)																					
Female mean age at first marriage	23.5 (1980)																					
<p><b>INTERNATIONAL MIGRATION</b></p> <table> <tr> <td></td> <td style="text-align: center;"><u>1980-85</u></td> <td style="text-align: center;"><u>2020-25</u></td> </tr> <tr> <td>Net migration rate</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> </tr> <tr> <td>Foreign-born population (%)</td> <td colspan="2" style="text-align: center;">5.1 (1980)</td> </tr> </table>		<u>1980-85</u>	<u>2020-25</u>	Net migration rate	0.0	0.0	Foreign-born population (%)	5.1 (1980)		<p>The levels of both immigration and emigration are considered <u>not significant</u> and <u>satisfactory</u>.</p>												
	<u>1980-85</u>	<u>2020-25</u>																				
Net migration rate	0.0	0.0																				
Foreign-born population (%)	5.1 (1980)																					
<p><b>SPATIAL DISTRIBUTION/URBANIZATION</b></p> <table> <tr> <td>Urban population (%)</td> <td style="text-align: center;"><u>1985</u></td> <td style="text-align: center;"><u>2025</u></td> </tr> <tr> <td></td> <td style="text-align: center;">38.2</td> <td style="text-align: center;">67.1</td> </tr> <tr> <td>Growth rate:</td> <td style="text-align: center;"><u>1980-85</u></td> <td style="text-align: center;"><u>2020-25</u></td> </tr> <tr> <td>urban</td> <td style="text-align: center;">4.6</td> <td style="text-align: center;">1.6</td> </tr> <tr> <td>rural</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">-1.0</td> </tr> </table>	Urban population (%)	<u>1985</u>	<u>2025</u>		38.2	67.1	Growth rate:	<u>1980-85</u>	<u>2020-25</u>	urban	4.6	1.6	rural	1.2	-1.0	<p>The spatial distribution is considered <u>partially appropriate</u>.</p>						
Urban population (%)	<u>1985</u>	<u>2025</u>																				
	38.2	67.1																				
Growth rate:	<u>1980-85</u>	<u>2020-25</u>																				
urban	4.6	1.6																				
rural	1.2	-1.0																				



## GENERAL POLICY FRAMEWORK

Overall approach to population problems: After four national development plans and almost two decades of sustained efforts to reduce the population growth rate, the Government embarked upon a new population policy in 1984. The new policy calls for a population of 70 million people to be attained by the year 2100. The Government views the increase in population as necessary to alleviate a serious labour shortage. (Malaysia must now resort to the employment of foreign workers). The Government recognizes the need for a comprehensive plan to ensure that the population is properly dispersed so that balanced development can take place.

Importance of population policy in achieving development objectives: The Government believes that a long-term and comprehensive population policy is an essential integral component of economic development plans. Population policy should provide for purposeful and planned growth in order to achieve a better quality of life. The Government has stated that establishing a fixed target of 70 million people by the year 2100 will facilitate the adjustment and monitoring of current and future economic and social development.

## INSTITUTIONAL FRAMEWORK

Population data systems and development planning: The National Registration Department and the Department of Statistics are the key data collection agencies. Statistical units have been organized in various major federal ministries. Although Malaysia has had a relatively long history of census-taking during its colonial period, the first post-independence census was conducted in 1970. The latest census was conducted in 1980. Compulsory vital registration is virtually complete in Peninsular Malaysia but incomplete in Sabah and Sarawak. The Economic Planning Unit serves as the secretariat to the National Development Planning Committee which comprises heads of all major economic development ministries. Malaysia has undertaken four development plans and has entered into the fifth plan which covers the period 1986-1990.

Integration of population within development planning: The Economic Planning Unit in the Prime Minister's Department is responsible for the formulation and co-ordination of population policies. The Human Resources Section of the Economic Planning Unit is responsible for taking population variables into account in planning. Since 1965 population projections have been prepared by the Economic Planning Unit. The National Population and Family Development Board (NPFDB) and the Population Studies Unit of the University of Malaysia study population-development interrelationships. A National Population Advisory Committee was established, with the NPFDB as the secretariat, to monitor and evaluate the various programmes created as part of the new population policy.

## POLICIES AND MEASURES

Changes in population size and age structure: In a significant shift in population policy, in 1984 the Government proposed a plan to boost the population to 70 million by the year 2100. The Government indicated that a population of 70 million could be attained with a population growth rate that was lower than the growth rate of the gross national product (GNP), so that efforts to improve living standards would not be nullified by population growth. Moreover, the time frame to achieve the target would be sufficiently long for social and economic development to take place to support 70 million people. The Government is investigating the various policy options to achieve a target of 70 million people. Under the Social Security Scheme, a provident fund exists for employed workers while domestic workers are entitled to voluntary coverage.

Mortality and morbidity: The Fifth Malaysia Plan places emphasis on preventive, promotive and curative health care for rural areas in particular, and the renovation, upgrading and refurbishing of existing health care delivery centres and institutions. Cost-effective methods for consolidating various health programmes will also be adopted in an attempt to reduce the country's financial burden. Of special policy concern are the disadvantaged, poverty-stricken mothers and children, including school children. No quantitative mortality or morbidity targets have been established.

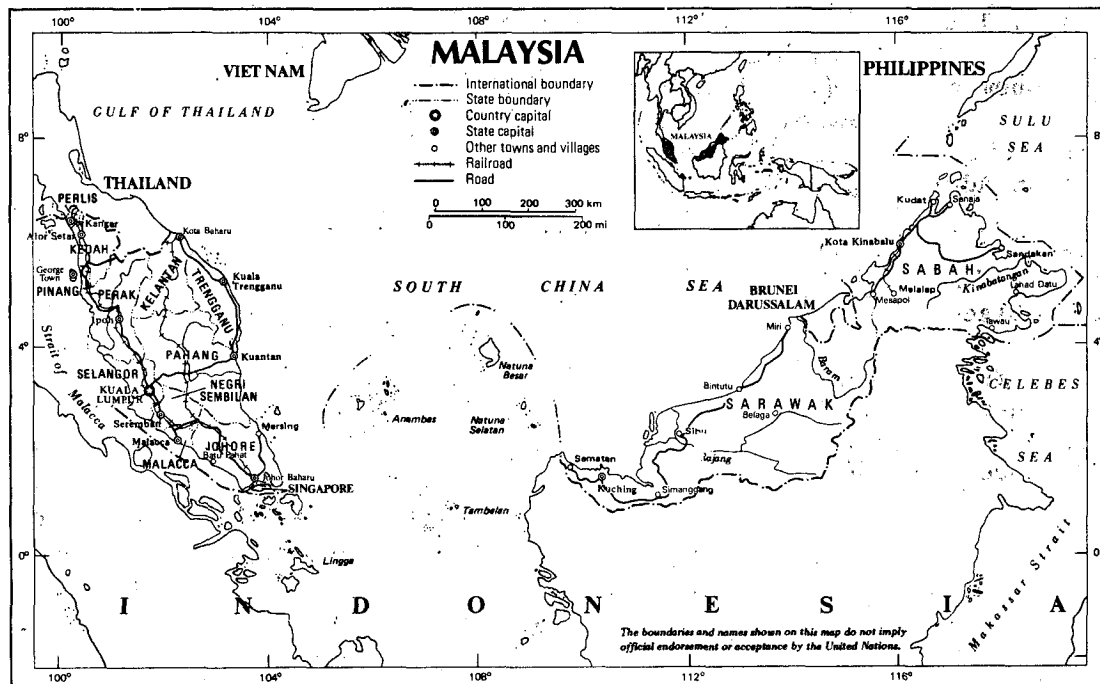
Fertility and the family: In a significant policy reversal, the Government has discontinued its campaign of "two is enough" and is now encouraging families to have as many children as they can support. The strategy is to decelerate the declining rate of growth by delaying the onset of replacement level fertility from the year 2035 to 2075. Apart from extending paid maternity leave for public employees from three to up to five children, other measures are being explored, such as income tax benefits for families that have more children, better child care facilities for working mothers, maternity benefits and the encouragement of marriage at an earlier age. The Government also plans to build larger low-cost housing to help meet the needs of larger families. The Fifth Malaysia Plan indicates that efforts will be undertaken to increase awareness of family building patterns and the means of timing and controlling births, with special emphasis on family development and welfare. There are no legal restrictions concerning access to information on modern methods of contraception. Abortion is legal if there is a risk to a woman's life, or physical or mental health. Sterilization is permitted if the individual satisfies criteria pertaining to age and parity and if there is written consent from both spouses.

International migration: The Government does not report specific policies concerning immigration or emigration. The country suffers from serious labour shortages and is forced to resort to foreign workers. About 300,000 Indonesians, Thais and Filipinos are estimated to be working illegally in Malaysia and cannot be expelled because their labour is needed to keep the economy functioning. In 1987 the Governments of Malaysia and Indonesia agreed to explore the possibility of issuing border passes as a means of stemming the flow of illegal immigrants from Indonesia to Malaysia. The country has also

provided temporary asylum to substantial numbers of refugees. Between 1975 and 1985, almost all of the 203,000 boat people who landed in Malaysia have been resettled in other countries.

Spatial distribution/urbanization: The main policy goals are to lower migration to the largest metropolitan areas and to increase migration to other urban areas. One strategy consistently followed in the development plans is to narrow regional disparities in living standards by accelerating development in less developed regions. Among the various policy measures used to adjust the spatial distribution pattern have been the Federal Land Development Schemes (FELDA), industrial decentralization, the development of a viable hierarchy of urban centres, integrated rural development and urban restructuring. According to the Fifth Plan, new guidelines have been adopted for developing new townships in areas of the Regional Development Authority that will follow natural rather than artificially-stimulated growth. In addition, a rural urbanization programme will be implemented nationwide, which will complement township development and infuse new vigour into rural areas.

Status of women and population: The Secretariat for Women's Affairs established in the Prime Minister's Department in 1983 is responsible for increasing female participation in the development process and ensuring that Government programmes take into consideration the full integration of women by guaranteeing equal opportunities. The Law Reform (Marriage and Divorce) Act of 1976 proposes a minimum age at marriage of 18 with provisions for the States to grant a dispensation to females at age 16.



### SELECTED SOURCES

The information contained in the overview is based on the continuous monitoring of population policies undertaken by the Population Division of the Department of International Economic and Social Affairs of the United Nations Secretariat, as part of its work programme.

The Government of Malaysia's response to a United Nations questionnaire entitled "Fifth Population Inquiry Among Governments: monitoring of Government perceptions and policies on demographic trends and levels in relation to development as of 1982" constitutes an important source for the overview.

Except where otherwise noted, the demographic estimates and projections are based on the tenth round of global demographic assessments undertaken by the Population Division. The various demographic indicators are derived from data that were available to the United Nations generally by the end of 1985; therefore, the figures supersede those that were previously published by the United Nations. For additional information and data, see:

World Population Prospects: Estimates and Projections as Assessed in 1984 (United Nations publication, Sales No. E.86.XIII.3).

Government of Malaysia (1986). Fifth Malaysia Plan, 1986-1990 (Kuala Lumpur).

United Nations (1985). "The Mexico City Conference: the debate on the review and appraisal of the World Population Plan of Action".

United Nations/United Nations Fund for Population Activities (1980). "Population policy compendium, Malaysia".

#### Contraceptive prevalence rate

United Nations (forthcoming). Recent Levels and Trends of Contraceptive Use as Assessed in 1987.

#### Female mean age at first marriage

United Nations (forthcoming). World Population Trends and Policies: 1987 Monitoring Report.

#### Foreign-born population

Government of Malaysia (1983). Population and Housing Census of Malaysia, 1980: General Report of the Population Census, vol. 2 (Kuala Lumpur).

## INTRODUCTION

### A. Historical background

Malaysia is a federation of 14 states - 12 states in Peninsular Malaysia, and Sabah and Sarawak on the island of Borneo, separated by 530 kilometres of South China Sea. The total land area of the country is 330,000 square kilometres.

Peninsular Malaysia, formerly known as the Federation of Malaysia, became an independent sovereign nation in 1957. The Federation of Malaysia, then consisting of the Federation of Malaya, Singapore, Sabah and Sarawak, was formed in 1963. Two years later, Singapore left the Federation to become an independent Republic.

Historically, Malaysia has been an area of continuous interaction for traders from China and India. As in other parts of South-East Asia, Malaysian history was interwoven with the various Buddhist and Hindu empires. In the fifteenth century Islam became and has remained the dominant religion of the country. The European incursion began with the capture of Malacca by the Portuguese in 1511. In 1641 the Portuguese were displaced by the Dutch who were in turn replaced by the British in 1824. British interest in the Malay Peninsula initially concentrated on commerce. This was followed by political annexation. Even before the takeover of Malacca, the Island of Penang was occupied by the British on behalf of the East India Company. From these bases their influence spread to the other areas so that by the time of the First World War, the British were in full control of the entire Malay Peninsula. At the outbreak of the Second World War, Japanese forces overran the country and occupied it until August 1945. The British returned in 1945 and continued to rule the country until August 1957, when independence was granted.

Peninsular Malaysia was one of the foci of the great population movements of the nineteenth century. The British encouraged the immigration of Chinese and Indians to exploit the mineral wealth, work in the rubber industry and help build roads and railroads. Consequently, the population trebled between 1880 and 1930, setting the stage for the ethnic and cultural diversity which is so marked a feature of present-day Malaysia.

The demographic development of the two East Malaysian states of Sabah and Sarawak did not differ appreciably from that of Peninsular Malaysia. During the early part of the tenth century, high mortality was responsible for the slow growth of the indigenous population. The development of natural resources led to the large-scale immigration of Chinese.

The various ethnic groups differ in occupational structure, average incomes and other social and health indicators. In terms of religious affiliation, the Malays belong to the orthodox Muslims of the Shafti'ite school. The Chinese mainly are Buddhists, but a sizeable number are Christians. The majority of Indians are Hindus. The family system, marriage and divorce differ among the different ethnic groups. In terms of economic activities, the Malay population is predominantly rural and agrarian. In contrast, the Chinese are engaged mainly in commerce, industries and services and are found mainly in urban areas in the Western coast states. A large proportion of the Indians are engaged as wage labourers on agricultural plantations.

#### B. Socio-economic conditions

Since independence the Government has instituted vigorous social and economic development programmes; and since the formation of Malaysia in 1963, five development plans have been launched, beginning with the First Malaysia Plan (1965-1970). In the past, emphasis on agricultural and rural development had strengthened the economic position of the country. To deal with important social and economic problems, recent major policy goals of the Government have been directed towards eradicating poverty and narrowing the economic and social gap between ethnic groups, without jeopardizing the nation's rapid economic growth based largely on unfettered enterprise in the export sectors. The guiding principle of recent development plans has been the implementation of the New Economic Policy (NEP) declared in 1971. The policy calls for the reduction and eventual eradication of poverty by raising income levels and increasing employment opportunities for all Malaysians, irrespective of race; and to accelerate the process of restructuring of society so as to reduce and eventually eliminate the identification of race with economic functions (Government of Malaysia, 1970). In line with this policy, the Government has instituted measures to promote Malay participation in trade, business, and industry professions and away from traditional agricultural activities.

The Malaysian record in social and economic development has been remarkable. With a per capita GDP of about US\$ 2,000, Malaysia is one of the more affluent countries in the third world. The real GDP per capita during the 1960s and 1970s grew at an average annual rate of 4 per cent. It is now classified by the World Bank as an "upper middle-income country". Yet Malaysia still must deal with pockets of poverty in rural areas and urban squatter settlements (Government of Malaysia, 1985). As a result of world recession, growth in GDP has been retarded and the opportunities for employment, especially of young people, have become more limited.

The Government has extended basic services - health care, clean water and sanitary services, schools and family planning - to the rural and less developed regions. But significant disparities remain in access to some services, and perhaps more pronounced, in the quality of services. The secondary school enrolment rate is now more than 75 per cent as compared to less than 20 per cent in 1960. In 1980 almost half the women of the working age population were in the labour force (Government of Malaysia, 1984).

The Government has always held a balanced view of population growth. As the world's leading producer of rubber, tin and palm oil, Malaysia viewed population growth as a positive factor facilitating rapid socio-economic development. Until the early 1960s, most officials maintained that there was plenty of room for expansion and that the country had no population problem. This remained the official position until well after the results of the 1957 population census were known. Subsequently, the emergence of several economic problems led to a change in official attitudes towards population increase. The growth of the synthetic rubber industry halted the rubber boom period. The price of natural rubber plummeted. Consequently, there was a slow-down in new planting of rubber. This resulted in an increase in unemployment rates. A survey on employment, unemployment and underemployment conducted in 1962 showed that the unemployment rate had risen to 6 per cent. In 1957 it had been less than 2 per cent. The unemployment problem was further aggravated by a large increase in the number of new entrants from the post-war baby boom cohort into the labour force. The problem was more severe in urban areas where the unemployment rate, particularly among youths, exceeded 10 per cent. Policy instruments designed to foster industrialization had not been entirely successful in creating sufficient jobs to contain the problem. It also became clear that large income disparities among the various segments of the population were widening, partly due to the high fertility among disadvantaged groups. Moreover, with rapid population growth, the Government's commitment to provide better social services posed a very heavy burden on the public sector. The growing awareness of the social, economic and health implications of rapid population growth led to the launching of the National Family Planning Programme in 1966. Chapter II of this paper deals with the formulation, implementation and evaluation of the population policy and programme.

## I. THE DEMOGRAPHIC SETTING

### A. Historical demographic trends

Population growth in Malaysia can be divided into two distinct phases: the first, covering the period up to the Second World War, characterized by large-scale immigration of Chinese and Indians; the second, from 1947 to the present, characterized predominantly by natural increase.

The first census for the whole of Peninsular Malaysia and Sabah took place in 1911, although earlier censuses were taken in the Federated Malay States of Perak, Selanger, Negri Sembilan and Pahang and the Straits Settlements in Penang and Malacca. In Sarawak, the first census using modern techniques was taken in 1947. A summary of the counts made in Peninsular Malaysia, Sabah and Sarawak is given in table 1.

Malaysia has been experiencing rapid population growth since the nineteenth century, as shown in tables 1 and 2. In Peninsular Malaysia, the growth rate fell below 2 per cent only during the period 1931-1947, largely as a result of the world-wide depression, the ravages of the Second World War and large-scale emigration. Although the growth rate still stood at 2.3 per cent per annum during the last intercensal period (1970-1980), a trend towards a slowing down of population growth has emerged since independence. In contrast, Sabah has been experiencing a very high rate of growth since the 1950s (from 3.4 per cent to 3.8 per cent) as a result of high rates of natural increase and a large influx of immigrants from Indonesia and the Philippines.

Smith distinguished two broad phases of international migration in Malaysia (Smith, 1952). From the beginning of the twentieth century to the First World War, migration was the primary factor in population growth. In the second phase, the inter-war period, migration was a significant factor but not as important as in the earlier period. Table 3 shows that in 1921 the foreign-born population constituted some 43.6 per cent of the total population in Peninsular Malaysia. Among the Chinese and the Indians, almost nine out of every 10 persons in 1911 were foreign-born. However, this percentage has declined steadily, so that by 1980 only 7 per cent of the Chinese and 9.3 per cent of the Indians were foreign-born (Khoo, 1983).

As mentioned earlier, the great influx of immigrants was very much tied to British colonial interests, which required new sources of cheap labour. Chinese and Indian labourers were encouraged to come to Peninsular Malaysia to exploit the agricultural and mining resources, and particularly the expanding rubber industry of this sparsely settled



Table 1. Population of Malaysia, 1817-1980

Year	Peninsular Malaysia				
	Penang and Malacca <u>a/</u>	Federated States <u>a/</u>	All Peninsular Malaysia <u>a/</u>	Sabah <u>b/</u>	Sarawak <u>b/</u>
1817, 1820	60,867 <u>c/</u>	...	...	...	...
1833, 1834	120,614 <u>c/</u>	...	...	...	...
1851, 1852	170,428 <u>c/</u>	...	...	...	...
1860	192,039 <u>c/</u>	...	...	...	...
1871	210,686 <u>c/</u>	...	...	...	...
1881	281,824 <u>c/</u>	...	...	...	...
1891	324,173	746,297	...	67,062 <u>c/</u>	...
1901	339,581	1,022,289	...	104,527 <u>c/</u>	...
1911	396,328	1,442,060	2,339,051	214,729	...
1921	447,906	1,785,273	2,906,691	263,252	...
1931	528,252	2,261,363	3,787,758	277,476	...
1939	...	...	...	...	490,585
1947	658,677	2,868,249	4,908,086	...	546,385
1951	...	...	...	334,141	...
1957	863,311	3,775,268	6,278,758	...	...
1960	...	...	...	454,412	744,529
1970	1,180,492	5,354,887	8,809,557	650,450	976,269
1980	1,419,400	5,670,200	10,944,844	1,011,000	1,307,600

a/ Adapted from J. Palmore, R. Chander and D. Z. Fernandez, "The demographic situation in Malaysia, a paper presented at the annual meeting of the Population Association of America, New Orleans, 1973 (unpublished).

b/ Data for years prior to 1960 obtained from L. W. Jones, The Population of Borneo (London, The Athlone Press), p. 31.

c/ Estimated.

Table 2. Rates of population change, Malaysia, 1911-1980

Year	Malaysia	Peninsular Malaysia	Sabah	Sarawak
1911-1921	...	2.2	...	...
1921-1931	...	2.6	...	...
1931-1947	...	1.6	...	...
1947-1957	2.5	2.5	2.5	2.4
1957-1960	2.8	2.8	3.4	2.4
1960-1970	2.6	2.5	3.6	2.7
1970-1980	2.3	2.2	3.8	2.4

Sources: Government of Malaysia, Department of Statistics, Population and Housing Census of Malaysia, 1980 (Kuala Lumpur, 1981); Government of Malaysia, National Population and Family Development Programme, Facts and Figures (Kuala Lumpur).

Table 3. Foreign-born population by ethnic group, percentage, Peninsular Malaysia, 1911-1980.

Ethnic group	Year						
	1911	1921	1931	1947	1957	1970	1980
Malay	...	...	8.0	4.0	2.6	2.2	2.8
Chinese	87.1	79.1	70.1	36.5	24.5	13.6	7.0 a/
Indians	89.5	87.9	78.6	48.4	35.0	18.3	9.3 b/
Total	...	43.6	41.1	21.7	15.7	8.2	5.0 b/

Source: Government of Malaysia, Department of Statistics, various population censuses (Kuala Lumpur).

a/ Whole of Malaysia, including other indigenous groups.

b/ Whole of Malaysia.

country. Immigration into Peninsular Malaysia was induced and sometimes assisted or even coerced, as more labour was needed to sustain or accelerate the momentum of economic growth (Lim, 1967). Special government agencies, such as the Chinese Protectorate, the Labour Department and the Indian Immigration Fund, were established to meet the needs of the immigrants. In 1911 there were 693,000 Chinese representing 29.6 per cent of the total population, and 239,000 Indians representing 10.2 per cent of the total population.

The shortage of labour was aggravated by high mortality due to the prevalence of environmental or infectious diseases, notably malaria, and the rudimentary levels of public health. Early immigrants were mostly male labourers, who were either unmarried or had not brought their wives with them, which explains the low crude birth rate prevailing at that time.

Chinese immigration continued until the global depression of the 1930s when there was an excess of departures over arrivals. The Alien Ordinance of 1933 drastically curtailed the immigration of adult Chinese males, but the influx of Chinese females continued until the war.

Indian immigration was largely a response to the labour requirements of the expanding rubber industry. By 1921 Indians constituted 70 per cent of the estate population and 15 per cent of the total population. At the outbreak of the Second World War, the Government of pre-independence India imposed a ban on the further emigration of unskilled Indian labourers. Since then, the net inflow has been relatively small.

There was also immigration of Malays from neighbouring islands, particularly from Java and Sumatra. Because of their easy assimilation, it is not possible to provide a precise estimate of the number of such immigrants. The immigration of Europeans into Malaysia, though insignificant in number, has had an important impact on the country's economic development and administration.

Immigration also played an important role in the growth of population in Sabah and Sarawak. As in the case of Peninsular Malaysia, immigration was encouraged to supplement the labour force of the small native population. Since 1960 immigration to Sabah and Sarawak was permitted only to fill the labour requirements of industry, agriculture and the civil service and on humanitarian grounds. The majority of the immigrants during the early part of the present century were Chinese, and by 1945 they comprised about a quarter of the population in these two States. The Chinese have ceased to be the majority among the new immigrants, having been replaced by Indonesians and Filipinos.

A comparison of intercensal growth and natural increase suggests that since 1957, international migration has been a negative factor in Peninsular Malaysia's population growth. The net outflow was estimated at 516,542 persons between 1957 and 1970 (Fernandez and others, 1975) and about 200,000 persons during the 1970-1980 period (Noor and others, 1983).

In recent years there has been some movement to Peninsular Malaysia from countries of the Association of South-East Asian Nations (ASEAN), mainly from Thailand and Indonesia. The prevailing high rate of population growth in Sabah is largely due to inflows from Indonesia and the Philippines, which accounted for 45,000 and 36,000, respectively, during the 1970s. In contrast, the proportion of foreign-born population in Sarawak has increased only marginally.

Up through the early part of the present century, migration flows and thus population growth were sensitive to economic conditions. Once restrictions were placed on immigration, and as the population became more "settled" in terms of age and sex structure, natural increase became the predominant factor in population growth. In the period 1947-1957, mortality rates fell sharply as a result of medical advances and improved standards of living; the fertility rate rose. The high fertility rate and sharply lowered infant mortality rate resulted in a post-war "baby boom", with its attendant momentum for growth.

Between 1947 and 1980, four distinct periods of natural increase could be observed (Jones, 1979):

(a) During the decade 1947-1956 the death rate fell sharply while the birth rate tended to increase. The rate of natural increase consequently climbed from less than 20 per thousand to almost 35 per thousand annually;

(b) Between 1957 and 1964, the crude birth rate (CBR) and the crude death rate (CDR) gradually declined. The rate of natural increase remained at about 30 per thousand but tended to decline slightly. The beginning of this period marked the turning point in Malaysian demographic trends, when both the birth rate and the death rate began to decline. During that period, the CBR fell from 46.2 to 39.1, while the CDR dropped from 12.4 to 8.0 in Peninsular Malaysia (see table 4);

(c) Between 1964 and 1970, the decline in the CBR outpaced the decline in the CDR, while the rate of natural increase sank back to about 25 per thousand a year;

(d) Between 1970 and 1980, the decline in the birth rate slowed down considerably, falling from 32.5 per 1000 in 1970 to 30.3 in 1980. On the other hand, the CDR declined from 7.0 per 1000 in 1970 to 5.5 in 1980.

Table 4. Crude birth rates, crude death rates and natural increase, Peninsular Malaysia, 1957-1985

Year	Crude birth rate (per 1,000)	Crude death rate (per 1,000)	Rate of natural increase (per 1,000)
1957	46.2	12.4	33.7
1958	43.3	11.0	32.3
1959	42.1	9.7	32.7
1960	40.9	9.5	31.4
1961	41.8	9.2	32.6
1962	40.3	9.3	31.0
1963	39.4	8.9	30.4
1964	39.1	8.0	31.0
1965	36.7	7.9	28.8
1966	37.3	7.6	29.7
1967	35.3	7.5	27.8
1968	35.4	7.6	27.8
1969	33.3	7.3	26.0
1970	32.5	7.0	25.5
1971	33.0	6.9	26.1
1972	32.0	6.6	25.4
1973	30.7	6.6	24.1
1974	30.9	6.3	24.6
1975	30.3	6.2	24.1
1976	30.6	6.2	24.4
1977	30.7	6.3	23.4
1978	30.0	5.7	24.3
1979	30.5	5.8	24.7
1980	30.3	5.5	24.8
1981	30.8	5.2	25.6
1982	30.6	5.2	23.4
1983	29.8	5.3	25.4
1984	30.7	5.3	25.4
1985	31.3	5.3	26.0

Sources: Data for the period 1957-1960 are post-enumeration figures revised, as reported in Malaysia, Department of Statistics, Revised Inter-censal Population Estimates, Malaysia; data for 1971-1976, 1980-1985 were obtained from Malaysia, Department of Statistics, Vital Statistics, 1971-1976, 1980-1985; data for 1977-1979 are from United Nations, Demographic Yearbook, various issues, New York.

Note: Data cover only Peninsular Malaysia. Figures for 1957 are taken from the census; those for the years 1958-1985 are as of June of each year.

The crude birth rate for Sabah has been hovering around 35-40 per thousand population for the past two and a half decades, with a peak in 1968-1969. The crude death rate has declined from 15.5 in 1947 to about 6 by the 1960s, reaching the very low level of 4.3 in 1974.

In Sarawak the crude birth rate rose from 13.7 per thousand in 1947 to about 30 per thousand by the early 1960s and has since remained at that level. However, it must be noted that in both Sabah and Sarawak, deficiencies in the data still continue to be a problem. Interpretation of demographic trends in the two States must take into account the distortion that might arise due to improvements in vital registration coverage over the years.

Although reliable data on mortality in Peninsular Malaysia are available only since 1947, it is likely that the mortality decline started much earlier, as remarkable success had been achieved in combating various diseases through better sanitation and health services as early as the 1920s. In 1984, the crude death rate was 5.3 per thousand population.

In 1947 the Malays had a crude death rate of 24.3 per thousand population as compared to 14.3 for the Chinese and 15.8 for the Indians. The Chinese, however, experienced a more rapid decline so that by 1982, they had the lowest crude death rate.

The infant mortality rate has also declined dramatically from 75.5 per thousand births in 1957 to 17.5 per thousand in 1984. The provision of health services and an improved standard of living have led to an accelerated decline in the infant mortality rate in more recent years.

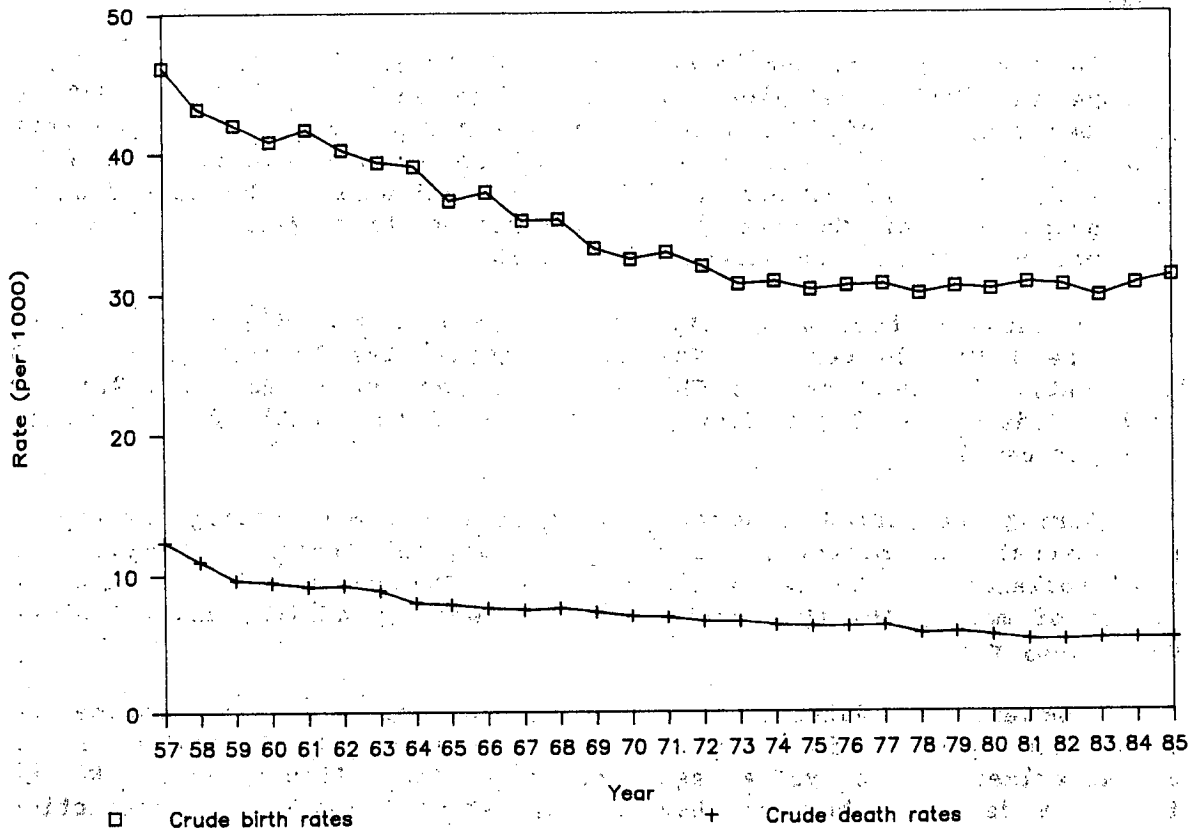
Life expectancy has improved considerably since independence. Between 1957 and 1983, life expectancy at birth increased from 55.8 years to 67.6 years for males, and from 58.2 years to 72.3 years for females. The improvement occurred across all segments of the population. The trends in the crude birth rate and crude death rate in Peninsular Malaysia are shown in figure I.

#### B. Current demographic trends

In 1980, of the total enumerated population of 13.75 million, 83.3 per cent were in Peninsular Malaysia, 7.3 per cent in Sabah and 9.4 per cent in Sarawak. The corresponding figures in 1970 were 84.4, 6.3 and 9.3, respectively.

Between 1970 and 1980 the rate of growth varied markedly in the different States. Four of the States experienced a very rapid increase in population, - Pahang (4.2 per cent annually), Sabah (3.8 per cent),

Figure I. Crude birth rates and crude death rates, Peninsular Malaysia, 1957-1985



Selangor (3.7 per cent) and the Federal Territory (3.5 per cent annually). On the other hand, Kedah, Malacca, Negri Sembilan and Perak had an annual growth rate of only slightly more than 1 per cent.

The proportion of population living in urban areas increased from 27 per cent in 1970 to 34 per cent in 1980. In particular, the increase went from 29 per cent to 37 per cent in Peninsular Malaysia and from 16 per cent to 19 per cent in Sabah and Sarawak.

According to the 1980 population census, the Malays made up 55.3 per cent of the total population of 11.4 million in Peninsular Malaysia, the Chinese 33.8 per cent, the Indians 10.2 per cent and others 0.7 per cent. The corresponding figures for 1970 were 52.7 per cent Malay,

35.8 per cent Chinese, 10.7 per cent Indian and 0.8 per cent other. The relatively lower growth rate of Chinese and Indians was primarily due to lower fertility levels and, to a lesser extent, to the fact that a larger number of them were overseas at the time of the census (Khoo, 1983).

In Sabah the proportionate share of Bumiputras (those of Malay culture and Moslem religion) increased from 76.5 per cent in 1970 to 82.9 per cent in 1980, as a result of their rapid growth (4.5 per cent annually). Part of this increase was due to the classification of recent Filipino and Indonesian migrants as Bumiputras. Correspondingly, the proportion of Chinese in Sabah dropped from 21.3 per cent to 16.2 per cent during the decade (Khoo, 1983).

In Sarawak there were only small changes in the ethnic composition over the 1970-1980 period. The Iban remained the largest group (30.3 per cent), followed by the Chinese (29.5 per cent), Malays (19.7 per cent), Bidayuhs (8.2 per cent), Melanaus (5.7 per cent) and all others (6.6 per cent).

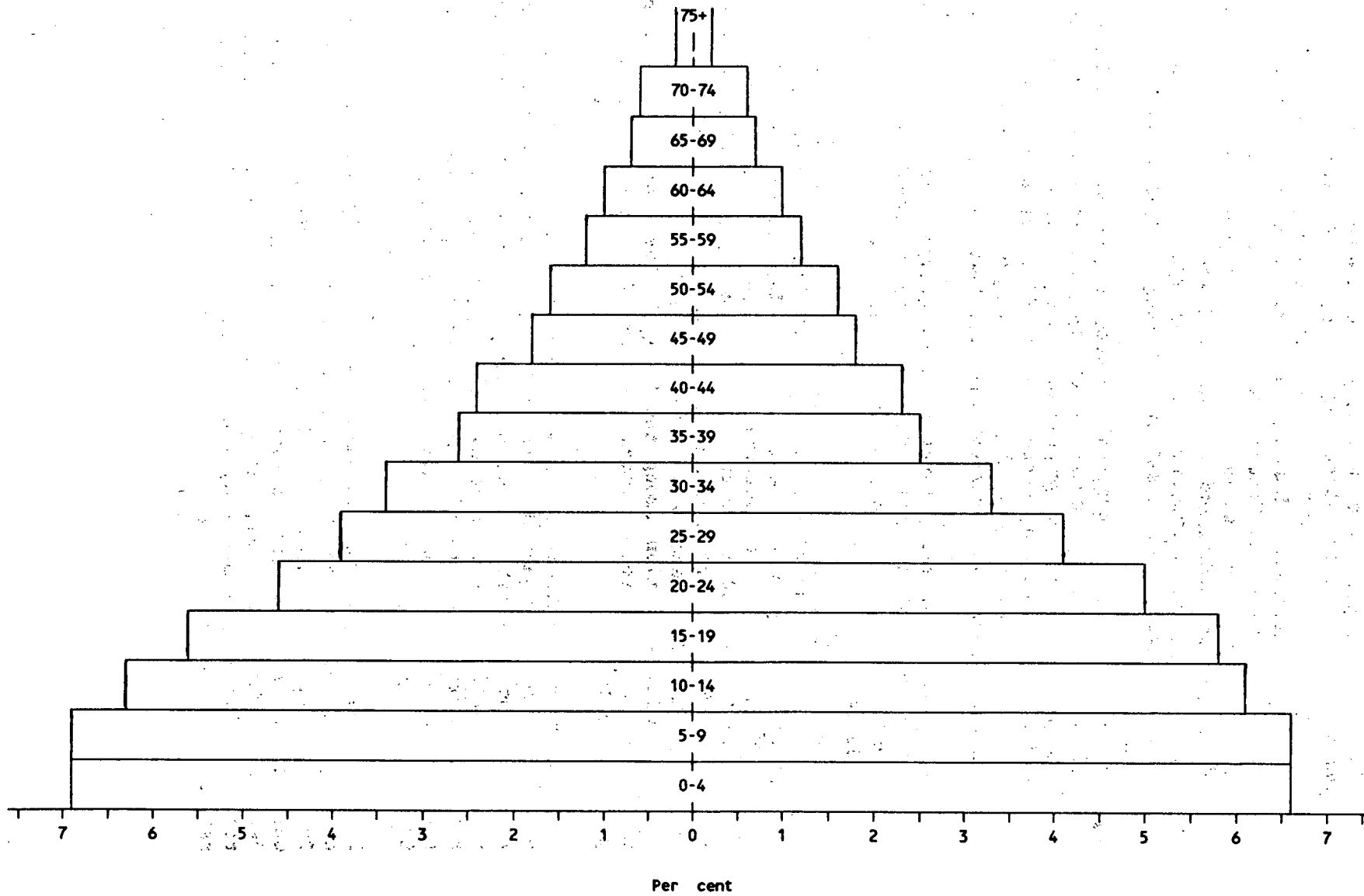
During the period in which population growth was heavily influenced by international migration, a number of salient features emerged: (a) the imbalance in the sex ratio among the Chinese and the Indians in favour of males; (b) the preponderance of working adults; and (c) a low dependency ratio.

However, as natural increase has become the main source of population growth for almost three decades, the population is characterized by a young age structure (see figure II). Recent fertility declines, however, have brought about a considerable reduction in the proportionate share of the youngest population despite a vast improvement in infant and child mortality rates. In 1970 persons below 15 years of age made up 45 per cent of the total population, but in 1980 they only constituted 39 per cent. Correspondingly, there was an increase in the proportion of the working-age population as well as women in the childbearing ages. Changes in the age structure resulted in a reduction in the dependency ratio, from 92 in 1970 to 76 in 1980, and they have also been a contributory factor to the increase in the crude birth rate.

The 1970s witnessed a sharp increase in the migratory movement across State boundaries in nearly all the States. Overall, the number of life-time interstate migrants increased from 515,410 in 1957 to 953,680 in 1970 and to some 1.9 million in 1980. This corresponds to about 10 per cent, 12 per cent and 18 per cent of the native-born population, respectively. Over the last intercensal period, there were about 1,102,000 interstate migrants, involving about 8 per cent of the total population (Khoo, 1983).



Figure II. Age-sex pyramid of the population of Malaysia, 1980



In Malaysia, population mobility is characterized by the prevalence of short-distance, intra-state migration and movements between rural areas. The migration pattern is to a large extent influenced by rural development programmes. The pattern can also be characterized as bi-polar in nature - the Federal Territory (Kuala Lumpur) and Selangor forming an urban-industrial magnet, drawing migrants primarily from the more developed and urbanized west coast States; and Pahang the rural agricultural magnet, attracting migrants from the less developed and agricultural-based States of Kelantan, Terengganu and Kedah.

During the last intercensal period, a population growth rate of about 5 per cent in the urban areas was more than twice that of the total population. Internal migration played an important role in urban growth during this period, accounting for 45.5 per cent of the increase in urban population, while 41.2 per cent was due to natural increase and 13.3 per cent due to reclassification (Tey, 1985).

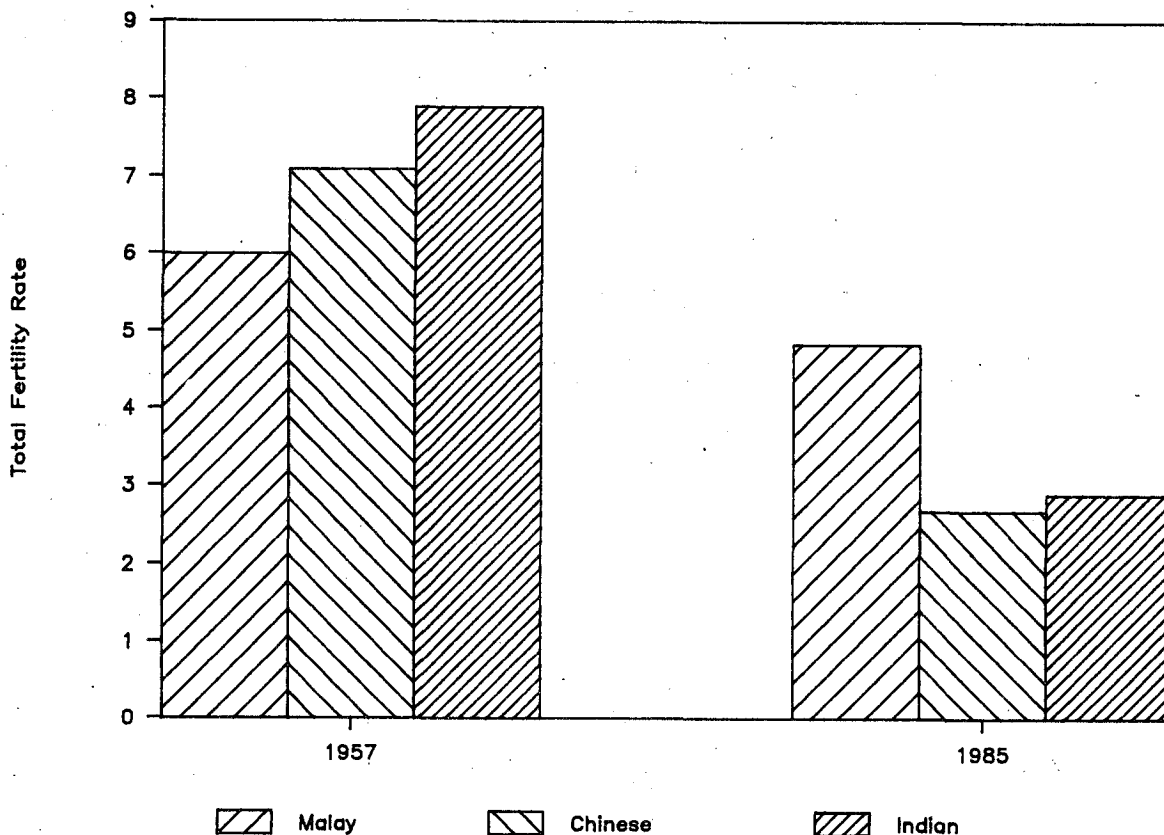
While the urban size distribution in Malaysia is still marked by a lack of pronounced primacy, four of the metropolitan centres had registered a growth of more than 10 per cent per annum during the 1970-1980 decade.

In line with the objective of the New Economic Policy, which is to restructure society in such a way as to eliminate the identification of race with vocation and location, migration plays an important role. Between 1970 and 1980 in urban areas, the Malay population increased at a rate of 8.3 per cent annually as compared to 3.2 per cent for the Chinese. This difference was largely brought about by the higher rate of rural-urban migration among the Malays. The proportionate share of Malays in the urban sector increased from 27.4 per cent in 1970 to 37.9 per cent in 1980.

The rate of natural increase for Malaysia as a whole declined from a level of about 30 per thousand in the early 1960s to 24 per thousand by 1978. More recently, however, the downward trend has appeared to reverse itself as the rate of natural increase climbed to 25.8 in 1984. Future population growth will depend largely on changes in the crude birth rate, since the crude death rate is not likely to decrease below the present low level.

Prior to the onset of the fertility decline, the Chinese and Indians had considerably higher fertility than the Malays in Peninsular Malaysia. The total fertility rates in 1957 were 6.0 for the Malays, 7.1 for the Chinese and 7.9 for the Indians. However, owing to the more rapid decline in fertility among the Chinese and Indians by 1985, the Malay total fertility rate was 4.8, the Chinese rate was 2.7 and the Indian rate was 2.9 (see figure III).

Figure III. Total fertility rate by ethnic group, Peninsular Malaysia, 1957-1985



The influence of changes in the age structure, marital status and marital fertility on the decline of the birth rate has been analysed by several researchers (Wee, 1985; Fernandez and others, 1975; Retherford and Cho, 1973; Sidhu and Jones, 1981). In Peninsular Malaysia, the proportion of women in the childbearing ages increased from 22 per cent in 1957 to 23.9 per cent in 1970 and to 25 per cent in 1980. Owing to high fertility in the 1950s, the increase between 1970 and 1980 in the Malay and Indian population was especially large in the age group 20-29 and the Chinese population in the age group 25-29 was especially large. This implies that changes in the age structure do not favour a continued decline in the crude birth rate.

A second factor which affects the crude birth rate is changes in marital status. Age at first marriage has risen steadily in Malaysia, as shown in table 5. The proportion of currently married women in the

childbearing ages, 15-49, has also declined for each age group since 1957. The decline was concentrated in the youngest ages and was substantial, in particular for the Malays and Indians. The decline was somewhat less for the Chinese, but for them the proportion currently married in those ages was already very low, even in 1957. The implication of such changes in marital status, other things being equal, is a continued fertility decline into the most recent intercensal period.

Table 5. Median age at first marriage for selected birth cohorts by sex and ethnic group, Peninsular Malaysia, 1980

Year of birth	Ethnic group				Total
	Malays	Chinese	Indians	Others	
<b>Males</b>					
1921-1925	22.0	23.6	25.0	25.0	23.1
1926-1930	22.2	24.7	24.6	25.0	23.2
1931-1935	22.3	25.0	24.5	24.9	23.6
1936-1940	22.5	25.6	24.6	25.1	23.9
1941-1945	23.6	26.1	25.2	25.1	24.9
1946-1950	24.5	26.2	25.2	24.7	25.2
<b>Females</b>					
1921-1925	17.2	20.2	18.3	20.0	18.3
1926-1930	17.2	20.5	18.4	20.2	18.4
1931-1935	17.4	20.9	18.3	20.2	18.4
1936-1940	17.7	21.9	18.5	20.5	19.0
1941-1945	18.1	22.7	18.8	21.2	19.7
1946-1950	19.0	23.1	19.8	21.7	20.6

Source: Government of Malaysia, Department of Statistics, 1980 Population Census (Kuala Lumpur, 1983).

Changes in marital fertility have also contributed to the lowering of the crude birth rate for the country as a whole. But for the Malays, with the exception of the oldest age group, 45-49, there was little change in the marital fertility rate since the mid 1950s. In contrast, there has been a constant and substantial decline in fertility among the Chinese, from 10.84 in 1957 to 7.44 in 1980, and among the Indians, from 9.64 in 1957 to 7.40 in 1980 (Noor and others, 1981).

A decomposition of the decline in the crude birth rate in Peninsular Malaysia shows that of the 13.7 point decline in the CBR between 1957 and 1970, 1 per cent was due to a change in the age-sex structure, 56 per cent was due to a change in marital status, and 43 per cent was due to a change in marital fertility. Between 1970 and 1980, a much smaller decline of 2.2 points occurred in the crude birth rate, because changes in marital status and marital fertility were offset to a large extent by the effect of a change in the age-sex structure.

In terms of ethnicity, a decline in marital fertility was an important factor in the crude birth rate decline for the Chinese only. For the Malays, while there were some signs of decline in marital fertility between 1957 and 1970, the trend was reversed during the 1970s. Any decline in the crude birth rate experienced by the Malays during the 1970-80 period was due to the change in marital status, primarily because of a continuing rise in age at marriage, which was largely offset by a substantial increase in the proportion of women in the early reproductive ages. For the Indians, marital fertility continued to decline, but the effect of a change in marital status still remained the most important factor (Noor and others, 1981).

In Peninsular Malaysia, the crude death rate declined steadily from 12.4 per thousand population in 1957 to 5.3 per thousand by 1985 (table 4). While such a rate is extremely low, the age-specific mortality rates for Malaysia are generally higher than those of developed countries. Thus, while there is still room for improvement in the mortality rates, it should be noted that with the eventual aging of the population, the crude death rate might be expected to rise in the future.

Improvements in infant mortality contributed a great deal to the lowering of the crude death rate. In 1957, 75 out of every 1000 live births did not survive to the first birthday, but the rate has come down to 17 per 1000 by 1984. It is interesting to note that the decline in the infant mortality rate has actually accelerated in the more recent years as a result of the implementation of a rural health programme. Data show that a higher proportion of infant deaths are now occurring in the early neo-natal period.

Causes of death are now characterized by the pattern prevailing in developed countries. In 1984, the five major causes of deaths in government hospitals were heart disease, accidents, diseases of early infancy, cardio-vascular diseases and neoplasm, in that order.

## II. REVIEW OF THE POPULATION POLICY SITUATION

### A. Population policy formulation

A sharp rise in fertility in the post-war era created an awareness among some segments of the population of the need for family planning to safeguard maternal and child health. Pioneered by expatriates, medical professionals and wives of prominent politicians and businessmen, organized family planning activities in the country started in 1953 with the establishment of the first voluntary Family Planning Association (FPA) in Selangor. By 1962 each of the States had formed an FPA to carry out voluntary family planning activities in the urban areas. The Federation of Family Planning Association (FFPA) was formed in 1958 and became affiliated with the International Planned Parenthood Federation (IPPF) in 1961. The FFPA serves as a central co-ordinating body to liaise with the Government and international agencies. Each State FPA, however, remains autonomous in its own activities. The voluntary family planning movement has been receiving an annual grant of \$M 200,000 from the federal Government through the Social Welfare Services Lotteries Board.

Although the FPAs had shown that there was a demand for family planning services in the country, there was no official view on the subject until the early 1960s. Several factors related to economic problems, as alluded to in the Introduction of this paper, led to a change in the official attitude.

In reviewing the current five-year development plan in 1963, the Economic Planning Unit in the Prime Minister's Department had expressed grave concerns over the adverse effects of rapid population growth. A report, entitled "Population, development and welfare in Malaya", which called for large-scale efforts by the Government to reduce fertility in order to harmonize demographic trends with economic development, was submitted to the Cabinet. The linkages between family planning, family health and family welfare as well as the adverse effects of frequent births on both maternal and child health were also brought to light (Hamid and others, 1984).

A few months later, the Cabinet decided that positive measures should be taken to decelerate the rate of population growth and that family planning and population questions in general should be part of government policy. Subsequently, in November 1964, a special cabinet sub-committee was formed to review population trends and their impact on the country's social and economic development. The sub-committee was to suggest means of obtaining popular support for fertility reduction and to draw up an integrated approach for the effective implementation of a

national family planning programme. The report submitted by the cabinet sub-committee was accepted by the full Cabinet in mid 1965 (Hamid and others, 1984).

In March 1966 the Family Planning Bill, which was presented to the Parliament, was enacted as the Family Planning Act No. 42 of 1966 and received royal assent. Following passage of the Act, the National Family Planning Board (NFPB) was established in June 1966, under the Prime Minister's Department, as an inter-ministerial group having statutory powers and a certain degree of autonomy. The Minister for Agriculture and Co-operatives was made chairman. The Board comprises 21 members, 10 members representing government ministries and departments and 11 prominent members from the non-governmental sector. The establishment of the NFPB enabled detailed objectives, programme strategies and plans concerning population and family planning to be developed and executed.

The population and family planning programme has become an integral component of the five-year Development Plans.

The three major objectives of the programme are as follows:

- (a) To improve the health and welfare of the family through voluntary acceptance of family planning;
- (b) To increase per capita income from \$M 90 to \$M 1,500 by 1985;
- (c) To reduce the population growth rate from about 3 per cent in 1966 to 2 per cent by 1985.

The functions of the Board as stipulated in Family Planning Act No. 42 of 1966 are as follows:

- (a) To formulate policies and methods for the promotion and dissemination of family planning for the health and welfare of mothers, children and the family;
- (b) To programme, direct, administer and co-ordinate family planning activities;
- (c) To train all personnel involved in family planning extension work;
- (d) To conduct research on medical and biological methods of family planning;
- (e) To promote studies and research on the interrelationships between social, cultural, economic and population changes and to promote research concerning fertility and maternity patterns;

(f) To create and operate an evaluation system to assess the effectiveness of the programme and the progress made towards the attainment of national objectives.

The First Malaysia Plan (1966-1970) stressed the importance of family planning for successful economic and social development and identified among four of the major economic problems the following:

"A high rate of population increase poses challenging problems of finding productive employment for each year's new entrants into the labour force and imposes a social cost in that resources which might have been used to increase levels of welfare must instead be devoted to supporting the growing population at the existing standard of living."

Thus one of the stated objectives of the Plan was to lay the groundwork for less rapid population growth by instituting an effective programme of family planning. The development target for reducing the growth rate from 3 per cent in 1966 to 2 per cent by 1985 was incorporated into the long-term perspective plan. In addition, family planning was considered to be of vital importance from the point of view of maternal health and child care and would be implemented in conjunction with the extension of medical facilities and public health services.

In successive plan periods, the programme has progressively evolved towards encompassing an integrated approach to population and development. While the First Malaysia Plan (1966-1970) merely acknowledged the implications of a high rate of population growth in terms of job creation and social cost, subsequent plans included consideration of the impact of population growth on sectoral development, such as education, health, housing and the provision of basic needs. The coverage was also extended to include analysis of population trends and structure, as well as detailed population projections (including school-age population and working-age population) as a basis for planning. During the 1970s, problems associated with population increase, such as the need for increasing public expenditure on social services and pressures on employment creation, continued to occupy the attention of planners. Widening the scope of the family planning programme in 1976 from purely health-oriented and clinic-based to welfare-oriented and community-based, and the introduction of population education further exemplified the growing importance of population factors within the socio-economic development framework.

Thus, according to the Third Malaysia Plan, "the best approach to family planning apart from the clinical approach is to combine a strong programme with efforts to create the social, economic, cultural and



political conditions conducive to the acceptance of a small family norm". The Fourth Malaysia Plan (1980-1985) period perhaps anticipated the shift in emphasis. While the importance of population factors continued to be emphasized, statements on the types of population problems frequently associated with the adverse effects on economic growth, and the pressures on socio-economic infrastructure were conspicuous by their absence. Instead, the emphasis was on manpower planning and the need to upgrade the quality and productivity of the labour force to provide the critical input into the socio-economic development effort. In the light of the optimistic economic outlook during the period and the expected deceleration in the growth of population and the labour force, the Plan also envisaged a fall in the unemployment rate and evoked the possibility of emerging labour shortages. This scenario led to the promulgation of a new population policy, as discussed in chapter III of this paper.

#### B. Population policy implementation

The National Family Planning Board (now National Population and Family Development Board) as overall co-ordinator is responsible for organizing, directing, administering and co-ordinating family planning and population-related activities in the country.

Until 1973 the Board had adopted the contraceptive clinical approach, utilizing medical and para-medical personnel in the delivery of services. That approach was then replaced by the multisectoral and multidisciplinary integrated approach with special emphasis on family development and family welfare.

The Board opened its first clinic in May 1967. The programme was implemented in phases:

- |                          |   |
|--------------------------|---|
| Phase I<br>(1967/1968)   | Dealt with large municipalities that had maternal hospitals, selected rural health centres and pilot study areas.                               |
| Phase II<br>(1969)       | Dealt with small towns and adjoining rural health centres.  |
| Phase III<br>(1970/1972) | Dealt with the remaining health centres, integrating family planning services with the Ministry of Health's maternal and child health services. |

Phase IV  
(1973/1975)

Provided additional coverage in relatively remote rural areas through the use of mobile units and the involvement of traditional birth attendants as motivators and service providers.

Phase V  
(Since 1976)

Consolidating and strengthening urban services to reach new migrants in relatively under-served squatter and low-cost housing areas and expansion into the remaining under-served areas.

The programme was structured in that way to take advantage of the greater availability of potential workers and clinics in the urban areas. Attitudes towards family planning have always been more favourable in urban areas than in rural areas.

The expansion of the programme into rural areas encountered several problems owing to lack of trained personnel, facilities and resources. Subsequently a plan was adopted to functionally integrate family planning services with the maternal and child health services of the Ministry of Health, and with the social programme offered by the Federal Land Development Authority (FELDA). Such an arrangement enabled the programme to be expanded to rural areas by taking advantage of the available health facilities and personnel in the rural areas. In addition, private practitioners, traditional birth attendants, the rubber plantations and the industrial sector were also enlisted to participate in the programme. In 1976 the urban improvement programme was designed to provide services to those migrating to urban areas where such facilities were lacking, especially in existing squatter and slum areas.

Contraceptive service delivery is provided through an extensive network of outlets. Family planning services in the urban areas are provided chiefly by the Board (87 main and 440 satellite clinics) and clinics of the Family Planning Associations (21 main, 120 satellite and 79 estate clinics), mainly through the general hospitals and district hospitals, urban health centres and clinic facilities of the industrial sector. In addition, 164 private practitioners in urban areas provide similar services.

Services in rural areas are mainly provided by the integrated family planning and maternal child health system of the rural health centres of the Ministry of Health (260 centres, 1,096 midwife offices, 2 community hospitals). These are supplemented by the 109 clinics of the Federal Land Development Authority (FELDA), 203 clinics in the estates and 150 traditional birth attendants.

In 1972, a World Bank appraisal mission recommended further strengthening of the family planning programme. It also recommended the introduction of population, nutrition and health education programmes, particularly for the rural population. Consequently the population project, funded by the World Bank, the United Nations Fund for Population Activities and the Government of Malaysia, was launched in 1973. The implementation of the population project initiated a multidisciplinary approach to the population problem having as ultimate aim to enlarge the scope of family planning from simple fertility reduction to improvement of the overall welfare of the family and society. The project was designed to strengthen and intensify the family planning programme and maternal and child health services. The project also incorporated family life education and population education into the formal and non-formal education systems, and it established a population studies and research programme at the University of Malaya.

To achieve its objectives, the population project provided for the infrastructural development of specialized family planning services, such as marriage and genetic counselling, investigation and treatment of infertility and cancer screening, as well as providing an effective follow-up system and promoting bio-medical research.

The programme's multidisciplinary approach also supports related social programmes and activities aimed at raising the quality of life, including health, welfare and improving the status of women, particularly rural women. The National Advisory Council on the Integration of Women in Development (NACIWID) was set up in 1976 under the Prime Minister's Department with members from relevant government agencies and voluntary women's organization. The Community Development Division of the Ministry of Agriculture has been strengthened by the establishment of a training centre, community service centres and a handicraft sales organization (KARYANEKA) to bring about economic benefits to rural women.

More recently, attempts have been made to integrate family planning services with other social services. The pilot project on the integration of family planning with parasite control was implemented to cover underprivileged segments of the urban and rural population in the Federal Territory and the State of Selangor. A three-pronged approach, involving improvements in the environment, health and social welfare services and the promotion of greater community participation to improve the condition of the urban poor, have also been attempted.

C. Population policy evaluation

The national family planning programme has a built-in evaluation mechanism which provides regular assessment and feedback on the effectiveness of the programme (Lee and others, 1973) through a service statistics system augmented by sample surveys and secondary analysis of data from population censuses and the vital registration system. It should be noted that while vital registration in Peninsular Malaysia has been virtually complete for several decades, it is still rather deficient in Sabah and Sarawak.

The long-term objective of the national family planning programme as stipulated in the outline perspective plan was to reduce the crude birth rate from 37.3 per thousand population in 1966 to 26.0 per thousand population by 1985. In order to achieve this target, the speed at which the demographic objective was to be achieved and the number of new acceptors to be recruited were spelled out in the various development plans, as shown in table 6. A comparison of the actual and targeted birth rates as well as the achievement rate in the recruitment of new acceptors provide a crude measure of the programme's effectiveness.

Table 6. Targeted and actual crude birth rates and number of new acceptors, Peninsular Malaysia 1966-1985

Period	Birth rate		New acceptors	
	Targeted	Actual	Targeted	Achieved
First Malaysia Plan (1966-1970)	37.2 - 35.0	32.5	343,350	273,720
Second Malaysia Plan (1971-1975)	32.5 - 30.0	30.0	535,000	433,400
Third Malaysia Plan (1976-1980)	30.0 - 28.2	30.3	817,963	538,761
Fourth Malaysia Plan (1981-1985)	30.3 - 26.0	(1982) 30.6	731,950	500,000

Note: A new acceptor for the programme is defined as a patient visiting for the first time any family planning clinic run under the national programme who accepts a family planning method. Acceptors of methods provided by non-programme sources are based on survey findings.

In terms of achieving its primary objective of providing family planning services, the programme has registered more than a million acceptors to its credit. The number of new acceptors recruited by all participating agencies rose steadily from 54,769 in 1971 to 87,260 in 1979. Subsequently, a marked decline set in. New acceptors numbered only 51,433 in 1985. Several factors, such as the increasing role of the non-programme sector and changes in the programme's thrust, may have contributed to the decline.

An analysis of service statistics shows that the programme has been successful in extending services to people in need of family planning to space their births. In recent years, about 13 per cent of the new acceptors were drawn from women who had no schooling and 47 per cent from women who had only primary schooling. The wives of unskilled and semi-skilled workers constituted about 60 per cent of the acceptors, while the wives of seasonal workers, military personnel and office workers made up the bulk of the remaining 40 per cent. The distribution by place of residence shows that they came disproportionately from rural areas, accounting for three quarters of the total acceptors. Data indicate that the better educated, the affluent and the urban segments of the population tended to use non-programme sources that were more readily available to them.

Data also show that the majority of the new acceptors were drawn from the young and low-parity women. The median age at acceptance was about 28 years in 1970 but subsequently declined to around 26 years. The median number of living children among the acceptors was 4.1 in 1970 but decreased to 3.0 in 1975 and to 2.5 in the 1980s. Correspondingly, the proportion of acceptors who had less than three children at the time of acceptance also increased from 34 per cent in 1970 to more than 60 per cent in recent years.

Oral contraceptives remain the mainstay of the programme, although its proportionate share has declined from 90 per cent in the early period of the programme to around 70 per cent lately. The condom, on the other hand, is gaining popularity and now accounts for about 13 per cent of acceptors. Sterilization (mainly tubectomies) constitutes about 8 per cent of acceptors while the IUD around 5 per cent.

Apart from population censuses, various surveys have been conducted to evaluate the effectiveness of the programme:

1. West Malaysia Family Survey, 1966/67
2. Post-enumeration Knowledge, Attitudes and Practices (KAP) Survey, 1970
3. Family Planning Acceptor Surveys, 1969, 1977

4. Survey of Maternal Health and Early Pregnancy Wastage, 1973
5. Malaysian Fertility and Family Survey, 1974 (in conjunction with the World Fertility Survey)
6. Malaysian Family Life Survey, 1976
7. Household Wellbeing Survey
8. Labour Force Survey (annual)
9. Family and Health Surveys in the Intensive Input Demonstration Areas, 1976, 1979
10. Family and Health Survey in the Federal Territory and Petaling Jaya, 1977
11. Survey on In-migration to Four Major Towns in Peninsular Malaysia, 1980
12. Ethnicity and Fertility Survey, 1980
13. Health and Family Planning Survey in Johore and Perak, 1982
14. Marriage and Divorce Study, 1980
15. Malaysian Population and Family Survey, 1984/85
16. Survey on Socio-economic Consequences of the Aging of Population, 1986
17. Migration and Employment Survey, 1986

While earlier surveys focused on family planning knowledge, attitudes and practices, and nuptiality and fertility, recent surveys have expanded the scope of investigation to include such topics as work history and the status of women, cost-benefits of children and socio-economic indicators. Following the evolution of a comprehensive programme that goes beyond family planning, sample surveys conducted in the country have also added questions on maternal and child health, child care, and so on.

Malaysia is currently involved in the ASEAN population programme which places emphasis on investigating the various aspects of population and their interrelationships with development.

Results from KAP surveys indicate that nine out of 10 respondents are in favour of family planning. Between 1966 and 1974 the proportion who had knowledge of a method increased from 44 per cent to 92 per

cent. The contraceptive prevalence rate increased from 8 per cent to 36 per cent in 1974 and to 51 per cent in 1984. Table 7 summarizes the overall situation concerning the change in attitude towards family planning and knowledge and practice of contraception among married women in the reproductive ages.

Table 7. Trends in family planning knowledge, attitudes and practices (KAP), Peninsular Malaysia

Survey/period	Per cent married women in reproductive age group who:			
	Approved of family planning	Had knowledge of family planning	Had ever used contraception	Were currently using contraception
West Malaysian Family Survey, 1966-1970	70	44	14	8
Post-enumeration KAP Survey, 1970	78	85	27	16
Malaysian Fertility and Family Survey, 1974	-	92	53	36
Malaysian Population and Family Survey, 1984/85	-	99	83	51

Note: Data may not be strictly comparable.

Although the extent to which the programme has contributed to the decline in fertility in Peninsular Malaysia remains debatable, the fact that the programme has created greater awareness of the acceptability of family planning and made contraception more accessible to couples has undoubtedly led to a faster rate of fertility decline.

A study comparing pre- and post-acceptance fertility rates found that fertility levels were much lower in the years immediately after acceptance (1973). It has also been shown that programme acceptors have

significantly lower birth rates in all six post-acceptance years than the matched comparison group (Sidhu and Jones, 1981). Acceptors had 425 fewer births per thousand women than non-acceptors in the six years following acceptance. Based on this rate, an estimated 124,000 births would have been prevented among acceptors recruited by the programme during the 1967-1972 period. Taking the difference between expected and reported births, it was estimated that some 35 per cent to 50 per cent of the reduction in the crude birth rates for the various years between 1968 and 1972 was attributed to the family planning programme. A similar study was replicated for the years 1972-1978 (Johnson and others, 1978). The analysis shows a sharp difference in fertility between acceptors and non-acceptors in the post-acceptance period. The difference was most pronounced in the two years following the year of acceptance, but persisted throughout in diminishing magnitude in each subsequent year. Cumulative fertility for acceptors during the first two post-acceptance years was about 35 per cent that of non-acceptors, while at four years, it was 72 per cent. It has been estimated that a total of 149,436 births were prevented by programme activities between 1972 and 1978.

Based on the standardization and programme impact approaches of the Population Division (United Nations, 1982), it has been suggested that more than 80 per cent of the estimated 60,163 births that did not occur in 1976 as a result of changes in marital fertility could be accounted for by the programme efforts (Tan and Tey, 1984).

An assessment of the fertility-inhibiting effects of the direct determinants of fertility using Bongaarts' model (Bongaarts, 1978) shows that use of contraception (including induced abortion) has prevented 4.4 births per woman (Malays 3.1, Chinese 7.2 and Indian 4.6). Breast-feeding further reduces fertility by about two births (Malays 3.0; Chinese, 1.2; and Indian, 1.6). Postponement of marriage or non-marriage contributed a reduction of about 2.5 births per woman (2.5 for the Malays and Chinese, respectively and 2.9 for the Indians). Thus it appears that contraception is the most important fertility inhibiting factor, particularly among the Chinese (Noor and Tan, 1982).



### III. POPULATION POLICY AND PROGRAMME DIRECTIONS SINCE 1984

#### A. Rationale for the new population policy

The year 1985 marked the end of Malaysia's 20-year overall perspective plan period. The Government needed to formulate a long-term demographic goal conforming with its approach to development.

Previous population projections prepared by demographers had indicated that the population of Malaysia would stabilize at around 30 million to 40 million people. However, it was generally acknowledged that the country's land area and resource endowment could support a much larger population. During the Fourth Malaysia Plan period (1981-1985), labour shortages had been encountered in some sectors of the economy.

The experience of the developed countries had shown that once rates of fertility reached a low level, it was extremely difficult to raise them. The demographic transition in those countries had also hastened the aging of the population.

The Government of Malaysia has attempted to have a rather balanced view of the likely positive and negative consequences of population growth. While rapid population growth could have an adverse impact on investment and employment, a large population could also be considered an asset as a reservoir of employable skills which could be utilized for development efforts. A larger population could provide a bigger domestic market to support industrial growth and economies of scale in the provision of infrastructure and other amenities, as well as reduce the dependence on export-oriented industries which are sensitive to the protectionist policies of developed countries.

In 1984 a new population policy was promulgated. The Government's mid-term review of the Fourth Malaysia Plan stated that:

"...Malaysia's population is relatively small and the nation has the capacity to generate the wealth that will support a much larger population. The domestic market is relatively small and this has also put constraints on the development of industries. Recognizing that a large population constitutes an important human resource to create a larger consumer base with increasing purchasing power to generate and support industrial growth through productive exploitation of national resources, Malaysia could, therefore, plan for a larger population which could ultimately reach 70 million. The experience of some countries of similar size to Malaysia has shown that a large population is not necessarily a liability if the population is provided with skills that can be effectively and productively utilized for national development.

It needs, therefore, to be stressed that raising the productivity of the population and being more diligent will be critical for further improving the standard of living of an anticipated larger population."

This was followed up by a statement in the Fifth Malaysia Plan (1986-90) which reads:

"...The Government will continue to monitor closely current population trends to ensure that the target is achieved. With the enunciation of the new population policy, efforts will be undertaken towards increasing the awareness of the patterns of family building and relationships and about the means of timing and controlling births with special emphasis on family development and welfare..."

#### B. Long-term demographic target

Many demographic options, such as maintaining the present total fertility rate of 4.0, can lead to the goal of a population of 70 million. However, with constant fertility, the population will continue to grow rapidly, surpassing the target of 70 million. Thus, the Cabinet accepted a scenario recommended by the Ad Hoc Committee on Population Issues, calling for a slower decline in fertility. In preparing population projections according to this scenario, the life expectancy at birth was assumed to increase steadily from 66 years in 1980 to 75 years by the year 2000 and stabilize thereafter, while the total fertility rate was assumed to decline slowly from 4.0 in 1980 to replacement level fertility of 2.05 children by the year 2070 and stabilize thereafter (i.e., a reduction of about 0.1 child quinquennially (see table 8). According to this trajectory, the population will stabilize at around 70 million by the year 2100 by the process of natural increase. The present population of about 15.5 million was projected to reach about 22 million by the turn of the present century.

#### C. Reaction to the new population policy

The new population policy has heightened the importance of population issues in public debate. However, knowledge and attitudes, vary considerably. Although the long-range demographic objective of the policy is consistent with the previously held official view regarding the role of population in the development of the country, its announcement has nevertheless been the subject of fervent debate. Some have supported the policy, while others have been critical and sceptical about the consequences of a larger population. Misconceptions and

Table 8. Total fertility rate used in population projections to achieve 70 million population

Year	Total fertility rate
1980	4.0
1985	3.8
1990	3.6
1995	3.5
2000	3.5
2005	3.4
2010	3.3
2015	3.2
2020	3.1
2025	3.0
2030	2.9
2035	2.8
2040	2.7
2045	2.6
2050	2.5
2055	2.4
2060	2.3
2065	2.2
2070	2.1
2100	Maintained at replacement level fertility

misinterpretations abound. The switch in policy has even been regarded as pro-natalist. To clarify the issues and to dispel the various erroneous interpretations affecting the continuity of family health services, the National Population and Family Development Board has held numerous briefings and seminars at various levels. The Government has reiterated that it remains intent upon reducing fertility to reach replacement level by the year 2070, albeit more gradually over a longer period of time.

Studies have shown that the fertility level among higher social classes has been falling over the years. In order to arrest this trend, the Government has provided tax deductions for up to five children, and in 1980 the amount of the deduction was increased. Maternity benefits, previously limited to three children, have been increased to five children.

D. Co-ordination and monitoring mechanisms

The new population policy, which provides a quantitative target for planners, has heightened concerns for socio-economic and family development in the country. In view of the urgent need to evaluate and monitor the various programmes in terms of the population goal and its impact on the country's social, political and economic development, a National Population Advisory Committee has been established to undertake those tasks. The National Population and Family Development Board serves as the secretariat to the committee, which has enhanced its role in the area of population policy.

Coincidentally, an earlier proposal to rename the National Family Planning Board as the National Population and Family Development Board was also approved by the Cabinet (see figure IV). Although the primary functions of the Board remain unchanged, it diversified its activities beyond the provision of family planning services even before the announcement of the new policy. The Family Planning Act of 1966 was amended to replace the term "family planning" with "population and family development". This has widened the scope and mandate of the national programme to encompass the whole field of population and family development. While family planning will continue to be provided, increased emphasis will be given to population and family life education and services, improvements in socio-economic status, provision of support for special programmes aimed at improving the quality of life and provision of advisory services to government and non-government agencies in population and family development issues. More concerted efforts will also be directed towards the promotion and co-ordination of research on the interrelationships between population dynamics and socio-economic development.

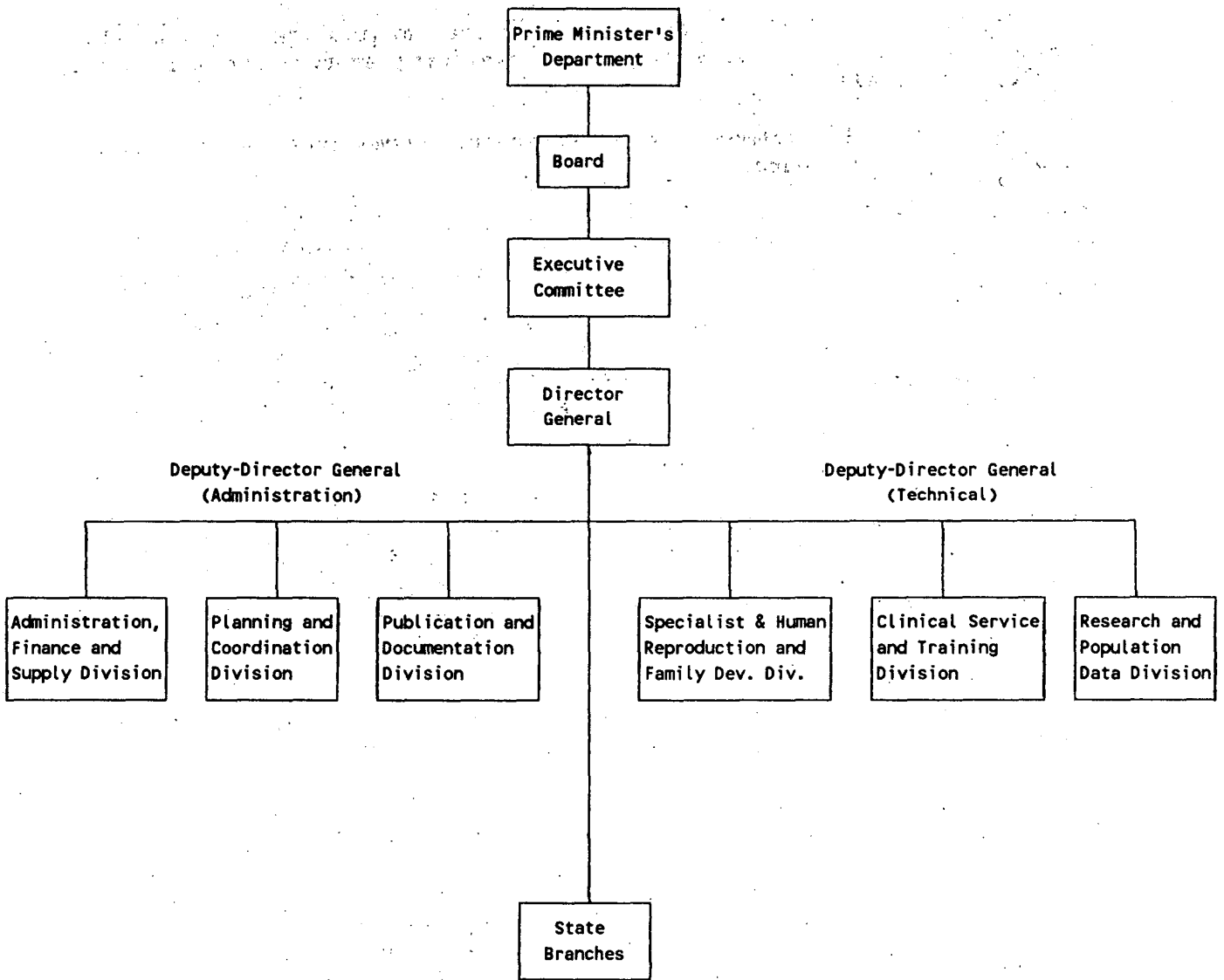
To attain the goal of a population of 70 million, the National Population Advisory Committee has proposed the following strategies:

(a) The development of a comprehensive plan to ensure that the population is properly distributed in order that balanced development can take place;

(b) The development of an integrated and comprehensive population-development policy which takes into account economic development policy, manpower policy, social policy, environmental policy, food, agricultural, water and energy policies;

(c) The strengthening of health, education, housing and other social services to improve both preventive and curative activities with emphasis on maternal and child care, including family planning;

Figure IV. Organizational structure of the National Population and Family Development Board



(d) The development of policies and programmes to strengthen the family as the basic unit of society through the incorporation of family life education into the school curriculum;

(e) The review of income tax policy on maternity benefits with respect to family size;

(f) The development of an effective monitoring system that includes improving the data base and developing appropriate population development models;

(g) The establishment of a permanent committee on population responsible to the Board.

#### IV. CONCLUSIONS

Although the extent to which the national family planning programme has been responsible for the fertility decline cannot be determined precisely, the studies cited have demonstrated the direct and indirect impacts of the programme, at least in some stages of its existence, in bringing about further fertility declines.

In reviewing the current demographic situation, it is clear that the fertility rate for a large segment of the population has remained unchanged in the past decade with a tendency to increase. It is also worth noting that given current low mortality rates and Government efforts to lower rates further, future population growth will largely depend on the course of fertility trends.

The economic problems that led to the enunciation of the family planning policy two decades ago are once again being experienced. As a result of the global recession, economic performance has not been very encouraging, and the unemployment rate has been climbing. Appropriate strategies will therefore have to be undertaken to monitor future population growth.

A population of 70 million is five times the size of the present population. Such a large population will dramatically increase the demand on resources and services. An increase in productivity will be required in order to maintain and improve the quality of life. The needs of the various segments of the population will have to be met. Food production will have to be increased to feed the expanding population. More jobs will have to be created to absorb the new entrants into the labour force. Amenities, such as safe water supply and sewerage, will have to be provided. Greater emphasis will have to be given to spatial planning to ensure a balanced regional development.

The expected decline in fertility and improved mortality conditions will result in the aging of the population in the long run. However, postponing the attainment of replacement-level fertility, as implied by the target of 70 million population, will slow down the tempo of the aging process. Nevertheless, the proportion of the population in the older age groups will still be increasing, which will result in a shift in the dependency burden from the very young to the elderly. In a population of 70 million, some 17 per cent will be aged 65 years and older. In other words, there will be some 12 million aged citizens in the country whose needs will have to be met. Concerns over the social and economic implications of an aging society have frequently been expressed in countries where the proportion of the aged is large, aging rapidly or faced with impending aging in the not too distant future. While Malaysia still has a young population, far-sighted policy-makers

and planners should elaborate a long-term policy and programme to safeguard the welfare and quality of life of the elderly. Economic and manpower planning and the allocation of resources for social services must be made on the basis of the impending changes in the age composition on the population. In the long term, the need to construct senior citizens' homes and geriatric clinics may place enormous strains on government budgets.

Towards these ends, a comprehensive population policy should be evolved within the context of a growing population. In response to the call of the World Population Plan of Action, Malaysia has made considerable progress in integrating population factors into development planning, based on an excellent statistical system. A comprehensive economic-demographic model is being developed by the Government to highlight the determinants and consequences of future population growth and will be a very useful tool for development planning.

A large population is an asset only if it is provided with adequate and appropriate skills to raise its productivity, thereby enhancing competitiveness in the world economy. Great emphasis has therefore been given to manpower training and human development. As the Malaysian economy is undergoing structural changes and moving towards high technology and heavy industries, retooling and retraining of manpower must take place continuously. Recognizing the problems associated with rapid urban growth and metropolitanization faced by neighbouring countries, the Government is now taking steps to formulate an urban policy of which future trends in population growth and spatial distribution are an important component. Various programmes have also been implemented to reduce income disparity and the incidence of poverty.

An optimum population size is difficult to determine. The provision of a clear and specific target in terms of the size and growth rate of the population represents a long-range objective in social planning that will facilitate the effective integration of population with development and the improvement of the data base and methodologies for planning purposes.



REFERENCES

- Bongaarts, J. (1978), "A framework for analyzing the proximate determinants of fertility", Population and Development Review, vol. 4, No. 1 (March), pp. 105-132.
- Fernandez, D.Z., A.H. Hawley and S. Predaza (1975), 1974 World Population Year, the Population of Malaysia, Committee for International Co-operation in National Research in Demography series.
- Government of Malaysia (1970), Second Malaysia Plan (Kuala Lumpur, National Printing Department).
- \_\_\_\_\_ (1984), Economic Report (1984/85) (Kuala Lumpur, National Printing Department).
- \_\_\_\_\_ (1986), Fifth Malaysia Plan (1986-1990) (Kuala Lumpur, National Printing Department).
- Hamid, Arshat and others (1984), Fertility Trends in Peninsular Malaysia, 1957-1970 and 1970-1980: Application of a Decomposition Technique, National Population and Family Development Board, Population Research Series 1 (Kuala Lumpur, Malaysia).
- Johnson, J.T. and others (1978), "Impact of the Malaysia family planning programme on birth: a comparison of matched acceptor and non-acceptor birth rates", Population Studies, vol. 32, No. 2 (July), pp. 215-230.
- Jones, G.W. (1979), "Population growth and fertility changes in Peninsular Malaysia since 1957", Proceedings of the Seminar on Malaysia Fertility and Family Survey/Population and Development (Kuala Lumpur, National Family Planning Board).
- Khoo, T.H. (1983), General Report of the Population Census, vol. 1 (Kuala Lumpur, Malaysia), p. 17.
- Lee, E., M. Ong and T.E. Smith (1973), "Family planning in West Malaysia: the triumph of economic and health over politics", in Smith, T.E.(ed.), The Politics of Family Planning in the Third World (London, George Allen and Urwind, Ltd).
- Lim, C.Y. (1967), Economic Development of Modern Malaya (Kuala Lumpur, Oxford University Press).

- Noor, Laily A. and B. A. Tan (1982), "Application of methods of measuring the impact of family planning programme on fertility: the case of Malaysia", in United Nations, Evaluation of the Impact of Family Planning Programmes on Fertility: Sources of Variance (United Nations publication, Sales No. E.81.X111.9).
- Noor, Laily A. and others (1981), Malaysia: Population and Development (Kuala Lumpur, National Family Planning Board).
- Retherford, R. D. and L. H. Cho (1973), "Comparative analysis of the recent fertility trends in East Asia", Proceedings of the International Population Conference, vol. 2 (Liège International Union for the Scientific Study of Population), pp. 161-181.
- Sidhu, M. S. and G. W. Jones (1981), Population Dynamics in a Plural Society: Peninsular Malaysia (Kuala Lumpur, UMCB Publications).
- Smith, T. C. (1952), Population Growth in Malaya (London, Oxford University Press).
- Tan, B. A. and N. P. Tey (1984), "Estimating the impact of Malaysia family planning programme on births: a comparison of matched acceptor and non-acceptor birth rates", Malaysian Journal of Reproductive Health, vol. 2, No. 2.
- Tey, N. P. (1985) "Population policy formulation, implementation and evaluation: the case of Malaysia", paper presented at the Seminar on the Use of Demographic Knowledge for Policy Formulation, Implementation and Evaluation: the Case of South East and South Asia (IUSSP/IASP/IIPS), Bombay, 24-28 January 1985.
- United Nations (1982), Evaluation of the Impact of Family Planning Programmes on Fertility: Sources of Variance (United Nations publication, Sales No. E.81.X111.9).
- Wee, V. E. L. (1985), "Urbanization in the context of socio-economic development in Peninsular Malaysia", M.A. thesis, Brown University, U.S.A.

## GLOSSARY

Contraceptive prevalence rate: percentage currently using contraception; usually based on married or sexually active couples with women in the reproductive age.

Crude birth rate: the number of births in a year per 1,000 mid-year population.

Crude death rate: the number of deaths in a year per 1,000 mid-year population.

Dependency ratio or age dependency ratio: the ratio of the combined child population under 15 years of age and adult population 65 years and over to the population of intermediate age per 100.

Foreign-born population: persons born outside the country or area in which they were enumerated at the time of the census.

General fertility rate: the annual number of births divided by the mid-year population of women aged 15 to 49 years multiplied by 1,000.

Gross reproduction rate: a measure of the reproduction of a population expressed as an average number of daughters to be born to a cohort of women during their reproductive age, assuming no mortality and a fixed schedule of age-specific fertility rates. More specifically, it is the sum of age-specific fertility rates for the period multiplied by the proportion of the total births of girl babies.

Infant mortality rate: the probability of dying between birth and age 1 multiplied by 1,000; commonly calculated as the number of deaths of infants under one year of age in any given calendar year divided by the number of births in that year and multiplied by 1,000.

Life expectancy at birth: a life-table function to indicate the expected average number of years to be lived by a newly born baby, assuming a fixed schedule of age-specific mortality rates.

Mean age at first marriage (females): the average age at which women marry for the first time.

Median age: the age which divides the population into two groups of equal size, one of which is younger and the other of which is older.

Natural rate of increase: the difference between the crude birth rate and the crude death rate, expressed per 1,000 mid-year population.

Net migration: the difference between gross immigration and gross emigration.

Net migration rate: the difference between gross immigration and gross emigration per 1,000 of the mid-year population.

Net reproduction rate: a refined measure of the reproduction of population expressed as an average number of daughters that a cohort of newly born girl babies will bear during their lifetime, assuming fixed schedules of age-specific fertility and mortality rates. In other words, it is the measure of the extent to which a cohort of newly born girls will replace themselves under given schedules of age-specific fertility and mortality rates.

Rate of growth: the exponential average annual rate of population growth, expressed as a percentage.

Sex ratio: the number of men per 100 women.

Survival ratio: the probability of surviving from one age to an older one; it is often computed for five-year age groups and a five-year time period.

Total fertility rate: the sum of the age-specific fertility rates over all ages of the child-bearing period; if five-year age groups are used, the sum of the rates is multiplied by 5. This measure gives the approximate magnitude of "completed family size", that is, the total number of children an average woman will bear in her lifetime, assuming no mortality.

Urban population: population living in areas defined as urban by national authorities.