

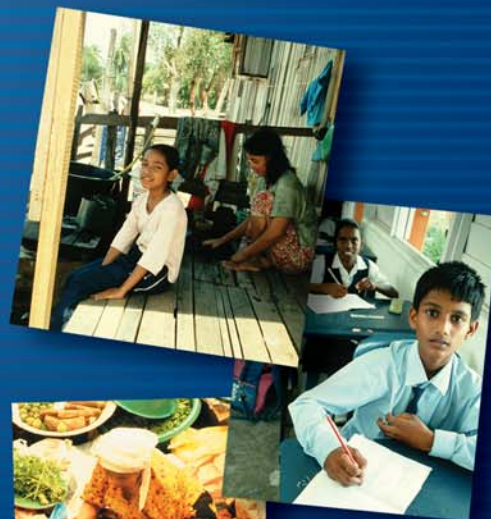


ECONOMIC PLANNING UNIT
PRIME MINISTER'S DEPARTMENT
MALAYSIA

MALAYSIA

ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS

SUCCESSES AND CHALLENGES



UNITED NATIONS
COUNTRY TEAM
MALAYSIA

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SUCCESSES AND CHALLENGES



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Foreword

Since 1970 Malaysia has achieved a number of national developmental goals. These achievements and the favourable position Malaysia now occupies in economic and social development owe a great deal to the ground-breaking policies and strategies that were envisioned in the Outline Perspective Plans and systematically implemented through Malaysia's national five-year plans.

In 1970, Malaysia's future stability and economic growth were by no means certain. While Malaysia's advantages could be recognized in terms of, for example, per capita income and physical and administrative structure, there were substantial difficulties to be surmounted in the form of ethnic and geographic inequalities in income and access to health and education services. Clearly, the process of development could not be implemented by administrative measures alone, and each of the ethnic, religious, and social groups comprising Malaysian society needed to have a stake in the outcomes.

It was in recognition of these major challenges that the New Economic Policy was formulated and became the driving force for the next 20 years. The two primary aims were to reduce and eventually eradicate poverty by raising income levels and increasing employment opportunities among all Malaysians, irrespective of race; and to restructure Malaysian society to correct economic imbalances, so as to reduce and eventually eliminate the identification of race with economic function.

The National Development Policy adopted for the following ten years, maintained the basic strategies of the NEP but introduced several significant shifts in specific policies to eradicate hard-core poverty; increase the participation of *Bumiputera* in the modern sectors of the economy; place greater reliance on the private sector to generate economic growth and income; and emphasize human resource development as a primary instrument for achieving the objectives of growth and distribution. The successful poverty-reducing approaches in these earlier decades placed a strong emphasis on agricultural and rural development, labour-intensive export industrialization, and the channelling of public investment into education, health, and infrastructure.

Many of the essential elements of the Millennium Development Goals can be identified in these earlier policies. In fact, Malaysia's successful achievement of various socio-economic policies over the years provided a solid platform on which the country was able to embark on the next phase of development. Vision 2020 articulates Malaysia's aspiration to become a fully developed country in its own mould by the year 2020. The strategies to achieve this are elaborated in the Nation Vision Policy where emphasis is given to the need to build a resilient and competitive nation as well as an equitable society that would assure continued unity and political stability.

The key strategies now in place include developing a knowledge-based economy and human resource development, and accelerating the shift in key economic sectors towards more efficient production processes and high value-added activities. Further progress

towards poverty eradication is expected to result from continued rapid economic growth assisted by targeted poverty-reduction programmes.

National unity, political stability, and administrative continuity have been critical to this success as, through consistent policies, focused and continuous efforts, we have been able to bring about development, enhance education and skills training, and reduce poverty rates throughout the country. Malaysia is now working to advance up the economic value chain and enhance its competitiveness. We have set ourselves a target for the total eradication of hard-core poverty in Malaysia by 2009.

In the contemporary world, isolationism and unilateral action are becoming increasingly impractical. Malaysia favours participation in a global partnership for development that benefits all countries willing to take part. A significant role in regional groupings provides the basis for cooperation, and Malaysia actively participates in, for example, the Association of South-East Asian Nations (ASEAN) and in Asia-Pacific Economic Cooperation (APEC). Malaysia has also participated in partnerships for the implementation of economic strategies, such as regional growth triangles.

Malaysia's commitment to the philosophy of international cooperation for development has been clearly demonstrated in the establishment of the Malaysian Technical Cooperation Programme in 1980, a bilateral programme of cooperation designed to assist other developing countries through sharing Malaysia's development experiences and expertise, especially in capacity building and human resource development.

I would like, in conclusion, to thank the Economic Planning Unit of the Prime Minister's Department for working so effectively in partnership with the United Nations Country Team of Malaysia, to put this report together. This report not only provides a comprehensive record of achievements to date but also presents us all with a reminder of some of the key challenges that lie ahead. We would also like to think that Malaysia's experience, while unique in some respects, will be of sufficiently universal relevance to provide useful guidance to other developing countries.



Dato' Seri Abdullah Haji Ahmad Badawi
Prime Minister of Malaysia

January 2005

Preface

At the United Nations Millennium Summit held in New York in September 2000, world leaders committed to strengthening global efforts for peace, democracy, good governance, and poverty eradication, while continuing to promote the principles of human rights and human dignity. The Millennium Declaration, building on the outcomes of the international conferences of the 1990s, made a strong commitment to the right to development, to gender equality, to the eradication of the many dimensions of poverty, and to sustainable human development.

The Declaration marked a shift in the paradigm that governs relations among peoples and countries, from one emphasizing competition for the world's resources to one that puts a higher premium on cooperation for the benefit of all people. The Millennium Development Goals (MDGs) emerged as a product of the road map that was developed to guide efforts towards universal human well-being. The MDGs address many of the most enduring failures of human development, placing human well-being and the eradication of extreme poverty at the centre of global development aims. The MDGs and the enjoyment of human rights are a mutually supportive agenda to eradicate poverty in all its dimensions.

While the MDGs commit developing countries to taking action to reduce poverty and improve human and environmental outcomes, they also call upon developed countries to meet their commitments to the developing world. Developed countries have similar time-bound deadlines for fulfilling their pledges to increase development assistance, enhance debt relief measures, and expand market access by reducing trade tariffs and agricultural subsidies, as well as supporting technology transfers and capacity building.

Malaysia's progress towards the MDGs has been a product of policies, strategies, and programmes directed to deal with the challenges of the time. Poverty eradication, the supreme objective among all the MDGs, was already a primary national concern in 1970, when half of all households in Malaysia were living in poverty. By 2002, just 5 per cent of households were poor, although poverty levels still vary considerably by state and ethnic group.

The successful poverty-reducing approaches placed a strong emphasis on agricultural and rural development, labour-intensive export industrialization, and the channelling of public investment into education, health, and infrastructure. During the period between 1970 and 1990 poverty reduction was accompanied by a reduction in personal, ethnic, and

Global poverty today continues to haunt us, while global peace and security is threatened at the same time, all leading to schisms that are growing wider... We have managed to build a Malaysian society, with its rich diversity, into a single Malaysian nation. Perhaps Malaysia's experience can also be a guide to a world that is facing trouble in dealing with difference and diversity.

*Dato' Seri Abdullah Haji Ahmad Badawi, Global, 2004
Langkawi International Dialogue, 29 July 2004.*

geographical income inequalities. Subsequently, income inequalities have once again increased—presenting a continuing challenge for policy.

Equity should continue to be at the forefront of the policy agenda. This requires, *inter alia*, disaggregating MDG indicators, where possible, by age, sex, location, and sub-groups, to assist pro-poor targeting according to the human rights principle of equality and non-discrimination. Poor and disadvantaged people should be involved in the design and implementation of programmes that will affect their well-being.

Universal primary education was almost achieved by 1990, by which time nearly all children were completing primary school. In 1970, one-third of the population 6 years of age and over had never attended school. The more elusive goal is now to ensure access of the poor to quality education and to enhance the educational experience of rural children in the emerging knowledge-based economy.

The gender disparity in primary school attendance, favouring boys, had virtually disappeared as early as 1970, and in recent years females have increasingly outnumbered males in secondary and tertiary enrolments. This has flowed through, to some extent, into employment and, to a lesser extent, to political life, with women's share of non-agricultural employment rising substantially.

Reductions in child mortality and improvements in maternal health are closely linked. The recorded reductions in child and maternal mortality are exceptional, and the levels are now similar to those of many more developed countries. These improvements are attributable to a well-developed primary health care system, including substantial investments in reproductive health service, together with access to quality water, sanitation, and nutrition.

While Malaysia has enjoyed great success in virtually eliminating malaria from most densely populated areas, the prevalence of HIV/AIDS and tuberculosis is a matter of major concern. Most disturbing of all, however, has been the doubling about every three years of the reported HIV cases occurring throughout the country. While the problem is concentrated in a small, high-risk group, the MDG target of halting and reversing the spread of HIV/AIDS by 2015 is extremely challenging, especially where co-infection with tuberculosis exacerbates the problem.

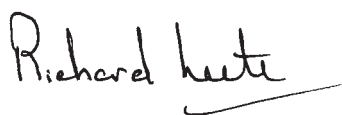
Although sustainable development has ostensibly been integrated into national development policies since the late 1970s, future challenges abound. While access to a quality water supply has been a major success in Malaysia, this is particularly true with regard to the implementation of national forest management policies at state level and the efficient expansion of energy-generation capacity to meet expanding demand without creating unfavourable economic or social impacts.

With the fulfilment of so many of the MDG targets, the challenge for Malaysia is to maintain momentum in dealing decisively with the remainder, and to identify the next set

of priorities that will keep the nation moving ahead in this exemplary way, continuing to set precedents that others can emulate and moving towards its ultimate objective of becoming a fully developed society.

Developing countries worldwide are increasingly contending with externalities over which they have little or no control while striving to achieve national development goals, including the MDGs. Such pressures should not compromise the energies and resources needed to meet development priorities, or endanger development gains that have already been made.

I would like, in conclusion, to thank Yang Mulia Raja Dato' Zaharaton bt. Raja Zainal Abidin, Director-General of the Economic Planning Unit of the Prime Minister's Department, the Economic Planning Unit's Technical Team, members of the National Steering Committee, members of the United Nations Country Team of Malaysia, and those acknowledged below, including from Civil Society Organizations, for their participation and professionalism in the preparation of this report. I hope that this report will provide a source of inspiration for Malaysia to meet development challenges beyond MDG targets, as well as to other countries striving to achieve the MDGs.



Richard Leete
Resident Coordinator
United Nations in Malaysia

January 2005

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A small team from the Economic Planning Unit (EPU) of the Prime Minister's Department and the United Nations Country Team (UNCT) prepared this report under the technical leadership of Dr Richard Leete (United Nations Resident Coordinator in Malaysia) and with the coordination support of Ms Madeline Loh (Assistant Resident Representative, South-South and Human Development Cluster, UNDP). The EPU team was led by Yang Mulia Raja Dato' Zaharaton binti Raja Zainal (Director-General, EPU); Dr Wan Abdul Aziz bin Wan Abdullah (Deputy Director-General, Macro, EPU); Yang Bahagia Datin Shamsiah Dahaban (Director, Social Services Section, EPU); and Ms Nooraini Md. Ali (Social Services Section, EPU).

The team was guided by a Steering Committee, comprising representatives from the various sections in EPU; Ministry of Education; Ministry of Health; Ministry of Rural and Regional Development; Ministry of Women, Family and Community Development; Ministry of Natural Resources and Environment; Ministry of Human Resources; Ministry of Housing and Local Government; and the Implementation Coordination Unit.

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Abbreviations

ADB	Asian Development Bank
AFNP	Applied Food and Nutrition Programme
AIDS	Acquired Immune Deficiency Syndrome
AIM	Amanah Ikhtiar Malaysia
AMP	Anti-Malaria Programme
ANC	antenatal clinic
APAW	Action Plan for the Advancement of Women
APEC	Asia-Pacific Economic Co-operation
API	Air Pollution Index
ARI	Acute Respiratory Infection
ART	anti-retroviral therapy
ASEAN	Association of South-East Asian Nations
BCIC	Bumiputera Commercial Industrial Community
CASP	Community AIDS Service Penang
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CEMD	Confidential Enquiry into Maternal Deaths
CETREE	Centre for Education and Training in Renewable Energy and Energy Efficiency
CFCs	chlorofluorocarbons
CITES	Convention of International Trade in Endangered Species of Wild Flora and Fauna
CPR	crime prevalence rate
DAC	Development Assistance Committee
DOA	Department of Agriculture
DOTS	directly observed treatment, short course
DTPS	District Team Problem-Solving Approach
ENGOA	External Non-Governmental Organization Assistance
EPI	extended programme of immunization
EPU	Economic Planning Unit (in the Prime Minister's Department)
EQR	Environmental Quality Report
FAMA	Federal Agricultural Marketing Authority
FAO	Food and Agriculture Organization (UN)
FDI	foreign direct investment
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FFPAM	Federation of Family Planning Associations, Malaysia
FOA	Farmers' Organization Authority
FPA	Family Planning Association
FSC	Forest Stewardship Council
FTZ	Free Trade Zone
GDP	Gross Domestic Product
GHG	Green House Gas
GNI	Gross National Income
HAART	highly active anti-retroviral therapy
HAWA	Women's Affairs Secretariat
HES	Household Expenditure Survey
HIPC	heavily indebted poor country
HIS	Household Income Survey
HIV	human immunodeficiency virus
HPSP	Health Promoting School Project

IADP	Integrated Agricultural Development Programme
ICPD	International Conference on Population and Development
ICT	information and communications technology
IDB	Islamic Development Bank
IDU	injecting drug user
IMCI	Integrated Management of Childhood Illness
IMR	infant mortality rate
INTAN	National Institute of Public Administration
ITA	investment tax allowance
ITTA	International Tropical Timber Agreement
IWK	Indah Water Konsortium
IWRM	integrated water resource management
JICA	Japan International Cooperation Agency
KEMAS	Community Development Division
LDC	less developed country
LKIM	Lembaga Kemajuan Ikan Malaysia (Fisheries Development Authority of Malaysia)
MAC	Malaysian AIDS Council
MARA	Majlis Amanah Rakyat (Council for Indigenous Peoples)
MARDEC	Malaysian Rubber Development Corporation
MARDI	Malaysian Agricultural Research and Development Institute
MCH	maternal and child health (programme)
MC&I	Malaysian Criteria, Indicators, Activities, and Standards of Performance
MDG	Millennium Development Goal
MEMP	Malaysian Energy Management Programme
MEP	Malaria Eradication Programme
MIEEIP	Malaysian Industrial Energy Efficiency Improvement Project
MMR	maternal mortality ratio
MOE	Ministry of Education
MOH	Ministry of Health
MQLI	Malaysian Quality of Life Index
MSC	Multimedia Super Corridor
MTCC	Malaysian Timber Certification Council
MTCP	Malaysian Technical Cooperation Programme
MTCT	Mother-to-Child Transmission (Programme)
NACIWID	National Advisory Council on the Integration of Women in Development
NAM	Non-Aligned Movement
NCCA	National Coordinating Committee on AIDS
NCWO	National Council of Women's Organizations
NDP	National Development Policy
NEAC	National Economic Action Council
NEP	New Economic Policy
NFPP	National Family Planning Programme
NGO	non-governmental organization
NPFDB	National Population and Family Development Board
NPW	National Policy for Women
NVP	National Vision Policy
NWRC	National Water Resources Council
ODA	Official Development Assistance
ODF	Official Development Finance
ODS	ozone-depleting substances
OECD	Organization for Economic Cooperation and Development
OIC	Organization of the Islamic Conference
OPP	Outline Perspective Plan

ORT	oral rehydration therapy
PAC	Public Accounts Committee
PENGASIH	Persatuan PENGASIH Malaysia
PLCHP	Public Low-Cost Housing Programme
PLWHA	people living with HIV/AIDS
PLI	poverty line income
POME	palm oil mill effluent
PPP	purchasing power parity
PPRT	Program Pembangunan Rakyat Termiskin (Development Programme for the Hard-core Poor)
PRF	Permanent Reserve Forests
PROSTAR	Program Sihat Tanpa AIDS untuk Remaja
PTM	Pusat Tenaga Malaysia
RDA	Regional Development Authority
RE	renewable energy
RED	Rural Economic Development
RISDA	Rubber Industry Smallholders Development Authority
SAHABAT	Persatuan Perantaraan Pesakit-Pesakit Kelantan
SARS	Sudden Acute Respiratory Syndrome
SME	small and medium enterprise
SMI	small and medium industry
SMIDEC	Small and Medium Industries Development Corporation
SPKR	Skim Pembangunan Kesejahteraan Rakyat
SREP	Small Renewable Energy Power (Programme)
STD	sexually transmitted disease
STI	sexually transmitted infection
TB	tuberculosis
TBA	traditional birth attendant
TCTP	Third Country Training Programme
TED	Teacher Education Division
TQM	Total Quality Management
U5MR	under-5 mortality rate
UMNO	United Malays National Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund (formerly United Nations Fund for Population Activities)
UNGASS	United Nations General Assembly Special Session
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund (formerly United Nations International Children's Emergency Fund)
VBDCP	Vector-Borne Diseases Control Programme
WAKE	Women and Health Association of Kuala Lumpur
WAVE	Women Against Violence
WB	World Bank
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

Introduction and Overview

The purpose of this publication is to trace in detail Malaysia's performance over the period since 1970, adopted as the benchmark year for this report, in accomplishing a number of key national developmental goals. Several of these goals were later identified by world leaders at the Millennium Summit held in September 2000 as the Millennium Development Goals (MDGs) (Annexe I.1). These development goals had long been perceived to be crucial by Malaysian policy makers and planners. There has been a remarkable degree of success in achieving them. Much evidence is available for tracing exactly what has happened, and for assessing what factors played a key role.

In documenting the extent to which Malaysia has succeeded in reaching the MDGs, it is important to understand the underlying context in which policies were formulated, the strategies and programmes adopted, and the degree of success in implementing these policies. This success can be assessed both through the evidence of their outcome in terms of trends in indicators used in the MDGs and through a qualitative assessment of their efficacy.

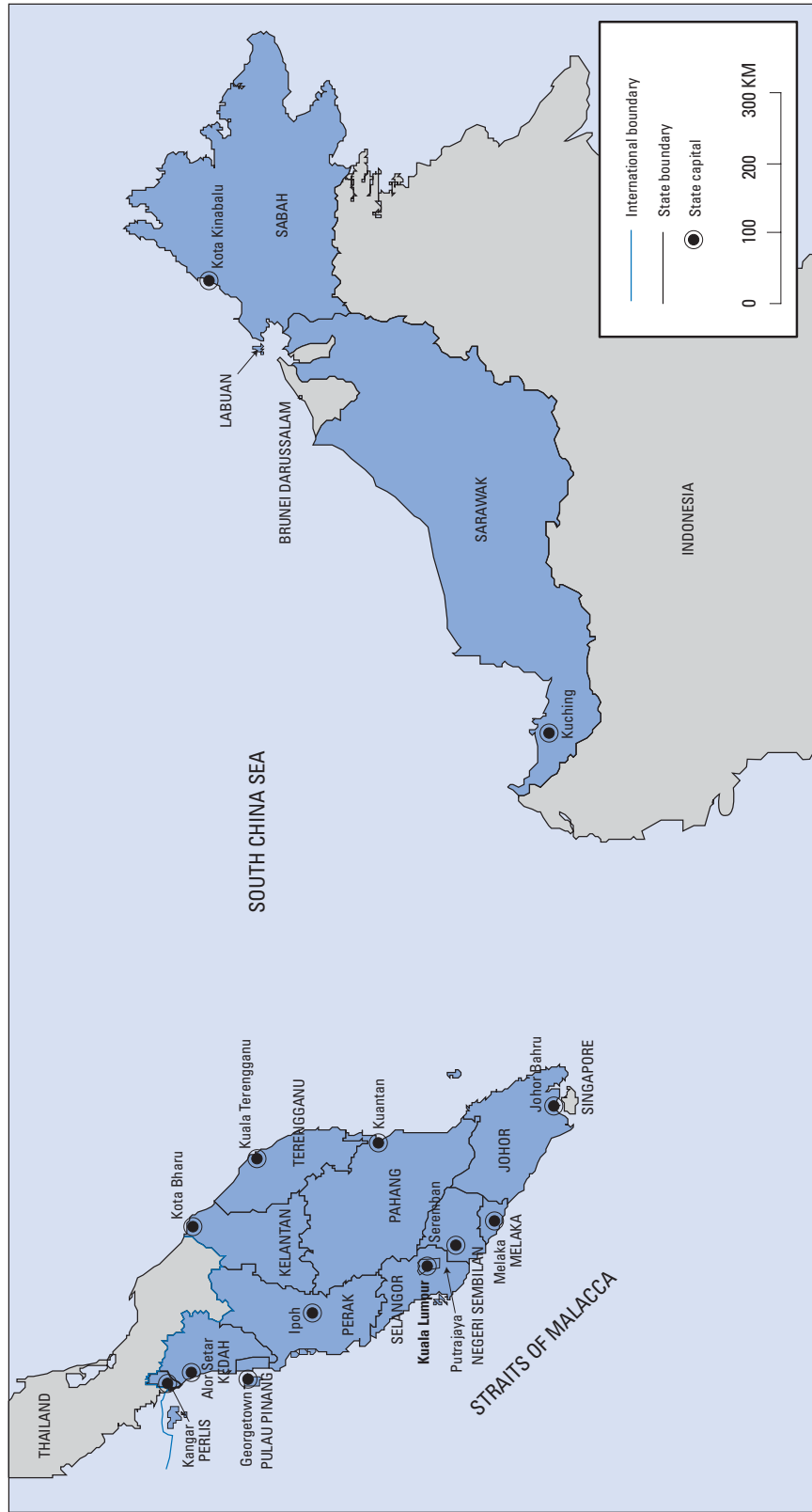
Malaysia's experience will undoubtedly have important lessons for other countries as they seek to reach the MDGs. For these lessons to have greater force and perceived applicability, it is necessary to examine the setting within which Malaysia pursued these goals, and to understand the advantages and disadvantages it faced. Relevant factors include its geographical, natural resource, and human resource endowment, the levels of economic development already reached by 1970, and political constraints on development processes.

National setting

Malaysia is an independent nation state, a parliamentary constitutional monarchy, with a federal government structure. The country, one of 10 nations (plus Timor-Leste) in South-East Asia, comprises thirteen states spread across two major regions separated by the South China Sea (Peninsular Malaysia and East Malaysia on the island of Borneo), and three Federal Territories—Kuala Lumpur, established in 1974; Labuan, established in 1984; and Putrajaya, established in 2001 (Map I.1). Peninsular Malaysia and East Malaysia had a common background of British colonial administration, though this administration began at different times in different states.

Malaysia has an abundance of natural resources, providing the basis for its key wealth-creating industries. These include rubber, tin, timber, oil palm, and petroleum and natural gas.

Map I.1
Malaysia



The various states of Peninsular Malaya, including four Federated Malay States, five Unfederated Malay States, Pulau Pinang, and Melaka, transferred peacefully from colonial rule to independence as the Federation of Malaya in 1957. Subsequently, the Federation of Malaya joined with Sarawak, Sabah, and Singapore in 1963 to form the Federation of Malaysia. Following the separation of Singapore from the Federation in 1965, the present nation of Malaysia was in place. The colonial heritage included a multi-ethnic, multicultural, and multireligious society, resulting from the inflow of Chinese over a long period (to both Peninsular Malaysia and East Malaysia) and a more targeted inflow of Indians to Peninsular Malaysia as rubber estate workers. The ethnic groups in Peninsular Malaysia were still sharply differentiated in terms of economic activity in 1970. The *Bumiputera* were more concentrated in rural areas in smallholder agriculture, but were also represented in government, the police, and the armed forces; the Indians were still heavily concentrated in the plantation sector, as well as in railways and government utilities; while the Chinese dominated trade and commerce.

The states located in Borneo—Sabah and Sarawak—are very large, making up 60 per cent of Malaysia's total land area but only 18 per cent of its population. Clearly, issues of isolated populations, while not totally absent in Peninsular Malaysia, are more pressing in these states, and strengthening the transportation network, as well as bringing basic services to small communities, has been a major preoccupation of their development activities.

The colonial heritage also included a relatively prosperous economy based mainly on rubber cultivation and tin mining, along with the more traditional smallholder production of rubber, rice, vegetables and fruits, and small-scale fishing. There was a good transportation network in Peninsular Malaysia, including railways and macadamized roads, though not so advanced in East Malaysia, where the road network was embryonic and river transportation remained very important. In comparison with many other neighbouring countries, the education system was relatively well developed, and well-functioning national and state civil services were in place.

Malaysia in a regional context

Malaysia is part of archipelagic South-East Asia, with Peninsular Malaysia connected to mainland South-East Asia via the long, narrow isthmus of southern Thailand (Map I.2). Compared to its closest neighbours, it is a medium-sized country, both in terms of area and of population, as can be seen in Table I.1.

In 1970, per capita income levels were much higher in Malaysia (US\$387) than in countries such as Indonesia, China, and India (all below US\$115), the Philippines (US\$183), or Thailand (US\$196). Among South-East Asian states, Singapore and Brunei

Darussalam have higher income levels. It is important for this to be kept in mind, because one factor to be considered in assessing the relevance to other countries of Malaysia's performance in reaching the MDGs is whether its greater endowment of wealth and infrastructure made the task 'easy'.

Map I.2 Malaysia in a Regional Context



Table I.1 Land Area and Population, South-East Asian Countries, 2004

Country	Area ('000 km ²)	Population ('000)
Indonesia	1,904	222,611
Vietnam	325	82,481
Philippines	300	81,408
Thailand	513	63,763
Myanmar	677	50,101
MALAYSIA	330	25,493
Cambodia	181	14,482
Lao PDR	231	5,787
Singapore	1	4,261
Brunei Darussalam	5	366

Source of data: ESCAP, 2004.

Challenges to development

The relatively advantageous situation of Malaysia in terms of per capita income and physical and administrative infrastructure at the starting point of this analysis must be balanced against the challenges of substantial ethnic and geographic inequalities in income and in access to basic social services such as health and education. Race riots in 1969 had threatened the stability of Malaysia and its economic progress. These riots were precipitated by tensions following the unexpected general election results in May 1969. More basic precipitating causes were discouraging economic trends, growing urban unemployment, and controversies surrounding language and education. The most basic underlying cause, however, was probably the imbalance between Malaysia's ethnic groups in terms of poverty and participation in the modern sectors of the economy.

Thus in 1970, Malaysia's future stability and economic growth were by no means assured, and its development strategy was under intensive review, with the intention of ensuring that growth with equity, particularly equity between ethnic groups, would be achieved. Malaysian politicians, planners, and the people at large had been obliged by circumstances to recognize that development is a process that cannot be achieved by economic and technocratic means alone, but contains strong social elements. Development in Malaysia demonstrably needs to involve the different ethnic, religious, and social groups, giving them all a stake in its outcomes, and building bridges of understanding between them.

New Economic Policy and beyond

It was out of this situation that the New Economic Policy (NEP) was formulated. This policy, and its successors, played a key role in social and economic planning over the last three decades of the twentieth century, and demonstrated the strong political will and consistent commitment of the government towards improving the quality of life of the poor and lessening inequalities in society. Before these policies are reviewed, Malaysia's economic planning mechanism will be briefly described.

Malaysia follows a systematic planning process whereby five-year plans are set within longer-term Outline Perspective Plans (OPPs), and systematic reviews are conducted at the midpoint of these five-year plans. Annual plans are the vehicle of fine-tuning and adjusting the five-year plans to changing circumstances. The sequencing of the NEP and its successors, as well as where the five-year plans fit into this sequence, is shown in Table I.2. The largest group of Malaysia's development plans—the second to the fifth—fell within the period covered by the NEP.

NEP (1971–1990)

Poverty, unemployment, and economic disparities among ethnic groups continued to be problems in the early 1970s. In 1970, almost half of Malaysia's population was living in poverty. Consequently, the NEP was formulated to (i) reduce and eventually eradicate poverty by raising income levels and increasing employment opportunities among all Malaysians, irrespective of race, and (ii) restructure Malaysian society to correct economic imbalances so as to reduce and eventually eliminate the identification of race with economic function. Based on the philosophy of achieving growth with equity, the success of the NEP was predicated upon rapid economic growth so that poverty reduction and restructuring of society strategies did not take place by means of the reallocation of existing wealth, but rather from new and expanded sources of wealth.

Table I.2 Overview of Malaysia's Development Planning Framework

1960–70	1971–90	1991–2000	2001–10
Pre-NEP	New Economic Policy (NEP) OPP1	National Development Policy (NDP) OPP2	National Vision Policy (NVP) OPP3
First Malaysia Plan (1966–70)	Second Malaysia Plan (1971–5) Third Malaysia Plan (1976–80) Fourth Malaysia Plan (1981–5) Fifth Malaysia Plan (1986–90)	Sixth Malaysia Plan (1991–5) Seventh Malaysia Plan (1996–2000)	Eighth Malaysia Plan (2001–5)

These objectives were to be pursued through a number of means. Enhancement of productivity of those in low-productivity occupations was pursued through the adoption of modern agricultural techniques, such as double-cropping, off-season and inter-cropping, drainage and irrigation, alongside improved marketing and credit, and financial and technical assistance. Opportunities for movement from low-productivity to higher-productivity sectors were to be provided through land development schemes, and assistance in entering commerce, industry, and modern services. Special attention was paid to the development of a Bumiputera Commercial and Industrial Community (BCIC). Improvement of services, such as housing, education, health, and public utilities, would assist in raising the living standards of the poor.

NDP (1991–2000)

The National Development Policy (NDP) maintained the basic strategies of the NEP, that is growth with equity or equitable distribution in addition to several adjustments to policy: (i) the focus of anti-poverty strategy was shifted to the eradication of hard-core poverty; (ii) an active BCIC was developed to increase the participation of *Bumiputera* in the modern sectors of the economy; (iii) there was greater reliance on the private sector to generate economic growth and income; and (iv) emphasis was placed on human resource development as a primary instrument for achieving the objectives of growth and distribution.

NDP programmes included loan schemes for small-scale agricultural and commercial development modelled on the Grameen Bank, land consolidation and rehabilitation programmes, commercialization of farms, agricultural productivity enhancement projects, provision and improvement of services for the urban poor, and efforts to promote employment opportunities in manufacturing, construction, and other urban-based industries.

Vision 2020

Shortly after the Sixth Malaysia Plan was launched, the then Prime Minister Dato' Seri (now Tun) Dr Mahathir Mohamad, in a speech to the Malaysian Business Council, outlined a vision of Malaysia as a fully developed country by 2020. The Prime Minister insisted that Malaysia must be fully developed in terms of all dimensions of national life: national unity and social cohesion, the economy, social justice, political stability, system of government, quality of life, social and spiritual values, and national pride and confidence. In moving towards these goals, he stressed the importance of human resource development, export-led growth and industrial diversification, low inflation, and private/public sector partnerships. The importance of this document is that it put in visionary terms the national objectives that are pursued in Malaysia's development planning, emphasizing the holistic nature of the development endeavour.

NVP (2001–2010)

The National Vision Policy (NVP) builds upon and maintains the efforts of the NEP and NDP, and incorporates the Vision 2020 objective of transforming Malaysia into a fully developed nation by 2020. It emphasizes the need to build a resilient and competitive nation, as well as an equitable society, to ensure unity and political stability. The private sector will spearhead economic growth, while the public sector will provide the supportive environment and ensure the achievement of the socio-economic objectives. Towards these goals, key strategies include developing a knowledge-based economy, emphasizing human resource development, and accelerating the shift of the key economic sectors towards more efficient production processes and high value-added activities. At the same time, further progress towards poverty eradication is expected to result from rapid economic growth, assisted by specific poverty alleviation programmes, consolidated under the *Skim Pembangunan Kesejahteraan Rakyat* (SPKR), targeted towards eradicating poverty in areas and among groups where its incidence is high, such as the *Orang Asli* and other *Bumiputera* in Sabah and Sarawak.

Assessment

Both the NEP and NDP have shaped the socio-economic development of the country, guided by broad outline perspective plans that are embodied in the series of five-year development plans. The story of Malaysia's development since 1970 must be rated a real success story if the criterion is the achievement of an improved level of broad-based welfare as defined by the variables included in the MDGs. The variables that were later to be incorporated by the international community in the MDGs had already been given priority by Malaysia, and great strides were made in reaching them. A common thread

running through these plans is the priority given to poverty eradication and equity. This consistency in defining and prioritizing developmental problems has not only helped to focus economic governance on efforts to eradicate poverty but also contributed in large measure to the success of those efforts.

It has already been noted that although Malaysia entered the 1970s with a stronger endowment of wealth and infrastructure than many of its neighbours, it also faced the challenges of a multi-ethnic society with marked imbalances between the ethnic groups. In one sense, however, this challenge became a strength in that it helped to focus attention on poverty alleviation. Moreover, since the *Bumiputera*, who held political power but were economically disadvantaged, were concentrated in rural areas, rural development was a strong and persistent focus in development programmes, to an extent rarely matched in other countries. There was thus persuasive political motivation for pursuing the kind of policies that were most likely to meet the MDGs.

The success of these policies was largely attributable to political stability, strong foreign direct investment, and visionary leadership. The physical evidence of the success of these strategies is to be seen in the functional and physical urban infrastructure of air and land transportation facilities, the Cyberjaya Multimedia Super Corridor (MSC), the Putrajaya government office enclave, and other elements of the built environment.

The broad changes to Malaysia's population and economy over the period are briefly reviewed in the following sections, before introducing the specific MDG variables that are discussed in subsequent chapters.

Demographic trends, 1970–2000

Size and growth

Malaysia's population more than doubled between 1970 and 2000, rising from 10.4 million in 1970 to reach 22.1 million in 2000 (Table I.3). This figure increases to about 23.5 million if non-citizens (mainly labour migrants, both legal and illegal) are included. Average annual population growth rates were declining from decade to decade, though if non-citizens are included in the figures, the deceleration of population growth became apparent only in the 1990s. Growth was most rapid of all in Sabah, boosted by high fertility levels and very high levels of immigration. Almost 80 per cent of the population is located in Peninsular Malaysia and just under 10 per cent each in Sabah and Sarawak. Growth rates of the Peninsular Malaysian states varied considerably, exemplified by the slow growth in Perak and the rapid growth in Selangor, fuelled by out-migration and in-migration respectively.

Table I.3 Population Size, Distribution, and Growth Rates by Region, Malaysia, 1970–2000

Year	Peninsular Malaysia	Sabah	Sarawak	Malaysia
Number ('000)				
1970	8,810	654	976	10,439
1980	11,427	1,011	1,308	13,745
1991*	14,475	1,399	1,700	17,574
2000*	18,024	2,049	2,009	22,082
Distribution (%)				
1970	84.4	6.3	9.4	100
1980	83.1	7.4	9.5	100
1991*	82.4	8.0	9.7	100
2000*	81.6	9.3	9.1	100
Average annual growth (%)				
1970-80	2.6	4.4	2.9	2.8
1980-91	2.6	3.6	2.9	2.7
1991-2000	2.0	3.5	1.5	2.1

Sources of data: Malaysia, Department of Statistics, 1983a, 1991a, and 2000e.

* Figures for 1991 and 2000 exclude non-citizens, who numbered 751,000 in 1991 and 1,385,000 in 2000.

Ethnic groups

Population growth rates for the main ethnic groups have been substantially different over the entire period since 1970 (Table I.4). *Bumiputera* growth rates have declined only slowly, mainly because their fertility rates have remained among the highest in South-East Asia, and much higher than those of the other main ethnic groups in Malaysia. As a result, the growth rate of the *Bumiputera* population has been more than double that of the Chinese over the 1980–2000 period. The *Bumiputera* share of Malaysia's population has steadily increased from 56 per cent in 1970 to 65 per cent in 2000. Over the corresponding period, the Chinese and Indian shares fell respectively from 34 per cent and 9 per cent to 26 per cent and 8 per cent. The highest *Bumiputera* shares of the population are in Sabah and Sarawak (Figure I.1).

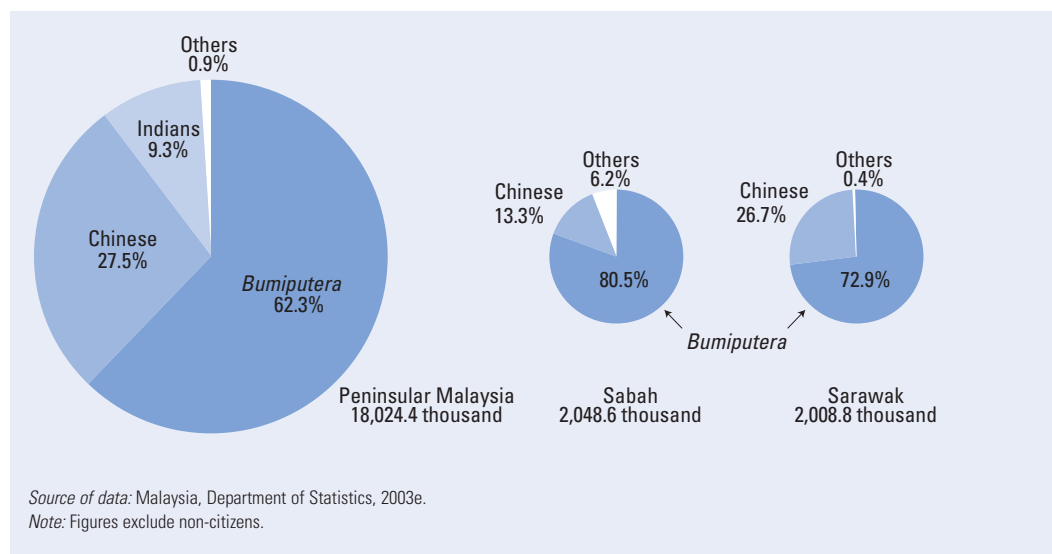
Table I.4 Population Size, Distribution, and Growth Rates by Ethnic Group, Malaysia, 1970–2000

Year	Bumiputera	Chinese	Indian	Total*
Number ('000)				
1970	5,845	3,564	943	10,439
1980	8,060	4,415	1,177	13,745
1991	10,647	4,945	1,394	17,574
2000	14,349	5,762	1,682	22,082
Distribution (%)				
1970	56.0	34.1	9.0	100
1980	58.6	32.1	8.6	100
1991	60.6	28.1	7.9	100
2000	65.0	26.1	7.6	100
Average annual growth (%)				
1970-80	3.2	2.1	2.2	2.8
1980-91	3.1	1.3	1.9	2.7
1991-2000	2.7	1.4	1.7	2.1

Sources of data: Malaysia, Department of Statistics, 1983a, 1991a, and 2000e.

* Figures in the total column include persons of other ethnic groups.

Figure I.1 Population Distribution by Ethnic Group and Region, Peninsular Malaysia, Sabah, and Sarawak, 2000



Labour migrants

Labour migrants, both legal and illegal, have always been an important component of Malaysia's population. A country with an abundance of natural resources, Malaysia has often faced a shortage of human resources. Foreign nationals rose from 1 per cent of the population in 1970 to 2 per cent in 1980, then jumped to 4.4 per cent in 1991, 5.9 per cent in 2000, and 7 per cent in 2004. The foreign-born population of Malaysia was very unevenly distributed in 2000, with some 52 per cent in Peninsular Malaysia, 44 per cent in Sabah, and the rest in Sarawak. In Sabah, 24 per cent of the population were foreigners, including contract workers, illegal immigrants, and refugees from the Philippines. Sabah's rapid development of oil palm plantations, the timber industry, and infrastructure in a labour-short economy has provided a strong magnet for migrants from poor regions of neighbouring Indonesia and the Philippines. De facto population growth in Sabah was therefore much higher than the figures shown in Table I.3. If foreign residents are included in the figures, over the 1980–91 period, Sabah's population grew by 4.9 per cent per annum, and over the 1991–2000 period, by 4.0 per cent per annum.

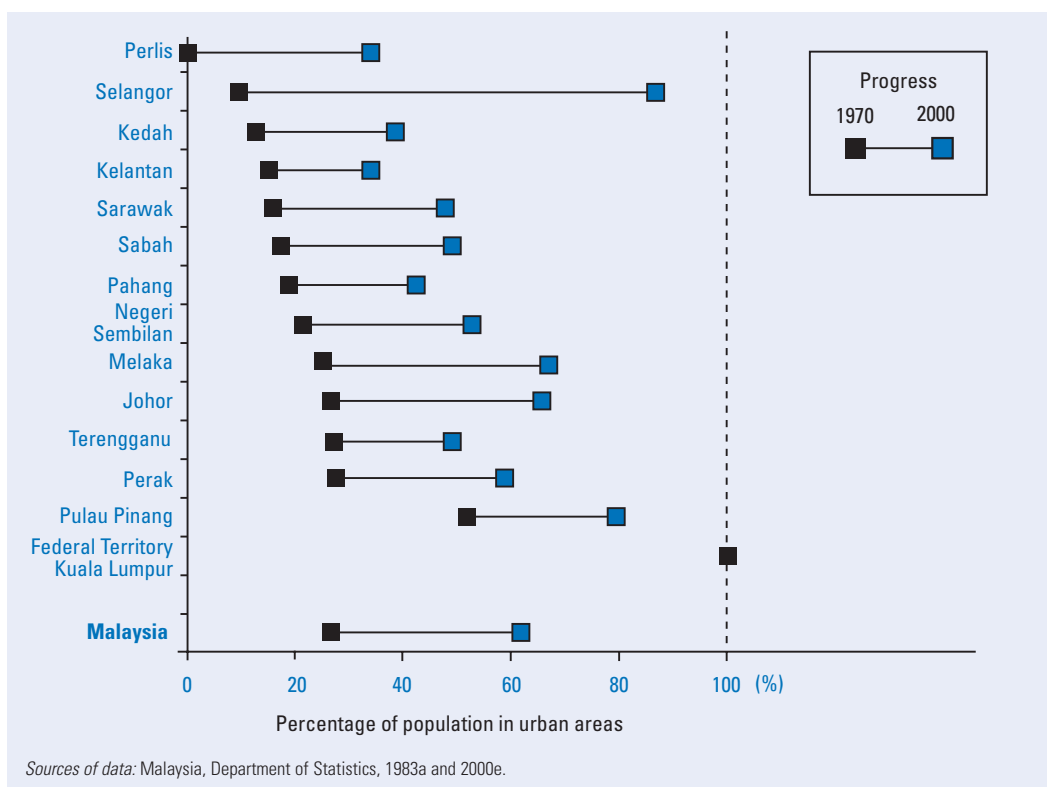
These very rapid rates of growth pose many dilemmas for Sabah. On the positive side, foreign labour has helped fill labour shortages, and hence supported rapid economic development. On the other hand, reliance on foreign workers results in various economic, social, and security problems and has put pressure on health, education, and housing facilities.

Urbanization

During the period since 1970, the centre of gravity of Malaysia's population has moved from rural to urban areas (Figure I.2). In 1970, little more than one-quarter of Malaysia's population lived in urban areas; in 2000, this share approached two-thirds. In 1970, of the

major administrative divisions, only Kuala Lumpur was more than two-thirds urban, whereas by 2000 it had been joined by Melaka, Pulau Pinang, and Selangor, with Johor very close. Even in those states that remained predominantly rural in 2000, the urban shares were in all cases above one-third, and much higher than had been the case in 1970. This increase in urbanization was a consequence of development, and it in turn had major implications for development policy, as will be discussed in the following chapter.

Figure 1.2 Population in Urban Areas by State, Malaysia, 1970 and 2000 (%)



Urbanization has led to fundamental changes in Malaysia's development context. Even in those states that remain most heavily rural, such as Kedah, Kelantan, and Pahang, a reasonably large city is located within the state, giving rural dwellers access to its services. Another notable development is the evolution of the Kuala Lumpur (Klang Valley metropolis) into a mega urban region spreading over large parts of the state of Selangor, with a total population of almost 5 million.

Age structure

Over time, the age composition of the Malaysian population has changed. In 1970, Malaysia had a broad-based age pyramid resulting from earlier high fertility levels. Numbers moving into the working ages were therefore increasing rapidly each year. However, as a result of a steady decline in fertility, numbers of children did not increase

as rapidly, and the share of children in the population declined. This meant that the proportion of the population in the working ages increased, and this increase is still continuing (Table I.5). Overall, the median age of Malaysia's population rose by more than 6 years from 1970 to reach 23.6 years in 2000. The proportion of elderly has begun to increase, and will increase more rapidly from now on.

Table I.5 Population Distribution by Broad Age Groups, Malaysia, 1970–2000 (%)

Year	0 – 14	15 – 59	60 +	Median age
1970	43.7	50.8	5.5	17.4
1980	39.9	54.6	5.5	19.6
1991	37.1	56.9	6.0	21.9
2000	34.9	58.7	6.4	23.6

Sources of data: Malaysia, Department of Statistics, 1983a, 1991a, and 2000e.

The changes in the age structure of the population are sometimes referred to as the 'demographic bonus'—the lowering of the dependency ratio (the ratio of young and old dependants to those of working age) over a period of decades while sustained fertility decline is experienced. This provides the opportunity for increased savings and investment for economic growth, at a time when relatively fewer resources are required for investment in education. The economic benefits of the demographic bonus, of course, are contingent on favourable internal and external economic settings, political and social stability, and the capacity to increase employment opportunities sufficiently rapidly to match the growth in labour supply. But when used effectively, the demographic bonus facilitates increases in per capita income, more rapid increases in educational enrolment ratios, and faster increases in labour productivity. Malaysia is still benefiting from this demographic bonus, which was one of the factors facilitating its poverty-reduction efforts.

Macroeconomic performance and structural transformations

Malaysia achieved sustained economic growth over the three decades from 1970 to 2000 with an average annual growth of about 7 per cent. However, there were several temporary economic downturns when growth was significantly below the average. There was the first oil crisis in 1973–4; the second oil crisis in 1978–9; the global downturn in the demand for electronics and primary commodities in 1985–6, and the Asian financial crisis in 1997 (see bottom row of Table I.6). Standards of living of the majority of the population were transformed over the 30-year period, with levels of real gross domestic product (GDP) per capita in 2000 being about four times the levels reached in 1970.

Consumption expenditure, both private and public, grew steadily over the entire period, although the recession of the mid-1980s and the financial crisis beginning in 1997 affected the 1981–5 and 1996–2000 figures, which were low for both private and government consumption (Table I.6).

Private investment fluctuated over the period 1971–2003, and was adversely affected by the financial crisis. This was offset to some extent by continued increases in public investment. In Malaysia, the public sector has always played a major role in the economy. During the 1970s and early 1980s, public investment grew at 16 per cent and 10 per cent respectively, due to investments in infrastructure projects and heavy industries which provided the capacity for industrial growth. In the 1990s, there were large investments by the non-financial public enterprises. Another feature of public sector investment has been the expansionary fiscal policies adopted during periods when there were downturns in private investment.

Growth of exports remained quite strong over much of the period, but registered a slight increase in the 2001–3 period, as a result of the slowdown of the US stock market and its impact on Malaysian electronics exports in particular. The decline in exports was matched by a fall in imports.

Table I.6 Average Annual Growth Rate of Gross Domestic Product by Expenditure Category, Malaysia, 1971–2003 (%)

Expenditure category	1971–5	1976–80	1981–5	1986–90	1991–5	1996–2000	2001–3
Consumption	6.5	9.8	3.7	5.1	8.1	3.0	6.3
Private	5.7	9.6	3.6	5.4	8.2	3.1	4.5
Public	10.2	10.6	4.0	3.9	7.8	2.9	13.0
Investment	12.3	13.4	5.2	9.2	17.9	-4.6	0.1
Private	10.5	12.7	1.7	14.6	19.8	-11.1	-11.9
Public	16.0	14.7	10.0	1.9	13.9	6.7	9.8
Export of goods and non-factor services	5.9	9.6	7.1	14.0	16.1	8.7	0.9
Import of goods and non-factor services	5.1	15.6	4.7	14.0	18.9	4.4	0.7
GDP at purchaser's value	6.6	8.5	5.1	6.9	9.5	4.8	3.2

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

Table I.7 shows some of the results of these trends. A major peak was reached in the share of private investment in 1995, before the financial crisis broke, but it fell significantly after that. The effect of this decline on the share of investment as a whole was partly offset by a rise in the share of public investment; nevertheless, in 2000, the share of investment as a whole was lower than in previous years with the exception of 1970 and 1975. The other main feature here is the development of a considerable excess of imports over exports in 1995, a feature that was redressed by 2000 and 2003, following the economic crisis and resultant adjustments.

Table I.7 Distribution of Gross Domestic Product by Expenditure Category, Malaysia, 1970–2003 (%)

Expenditure category	1970	1975	1980	1985	1990	1995	2000	2003
Consumption	75.0	71.8	76.2	71.3	65.6	61.6	56.6	61.8
Private	59.4	57.0	60.0	55.9	52.2	49.2	45.3	46.9
Public	15.6	14.8	16.3	15.4	13.4	12.4	11.3	14.9
Investment	17.8	24.1	30.1	30.3	33.9	49.1	30.8	28.0
Private	12.1	15.4	18.6	15.8	22.4	35.2	15.1	9.6
Public	5.7	8.7	11.5	14.5	11.4	14.0	15.3	18.4
Export of goods and non-factor services	2.9	-2.8	-1.5	-2.4	-0.7	0.1	1.6	-0.8
Import of goods and non-factor services	43.8	45.2	47.7	52.4	72.4	97.1	116.9	109.2
GDP at purchaser's value	39.6	38.2	52.6	51.6	71.3	108.0	105.9	98.2

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

The structure of the economy underwent major changes over these three decades, resulting in a better balance between agriculture, industry, and services. The figures in Table I.8 reflect the typical shift, over the course of economic development, from an emphasis on agriculture to greater industrialization. The decline in agriculture's share was rapid and the increase in manufacturing's share was fairly steady, though marked by a temporary decline in 1985 due to adverse economic conditions. As the share of manufacturing continued to increase even in the late 1990s, Malaysia does not yet appear to be entering the 'post-industrial' stage, where the share of the service sector rises and the share of manufacturing industry falls. However, the slight decrease in the share of manufacturing between 2000 and 2003 may herald the onset of such a trend. The sectoral shares of utilities and transport, storage and communications increased steadily, both of them roughly doubling between 1970 and 2003. This reflects the increasing role of these sectors in a rapidly industrializing and trade-oriented economy.

But structural change needs to be viewed in more detail, especially the changing structure of production within each of these broad sectors as well as between them. Within the rapidly growing manufacturing sector, two non-resource based subsectors—electrical and electronics, and textiles and clothing—continued to account significantly for the increase in manufacturing production until the end of the 1980s and, in the case of electronics, until 2000. Diversification was also taking place, as outputs of resource-based industries, including vegetables, animal oils and fats, and petroleum products, increased rapidly over the 1995–2000 period, as did the basic metal and metal products, and transport equipment industries. Within the service sector, finance, insurance, real estate, and business services have grown strongly since 1995.

Table 1.8 Structure of Production by Industry of Origin, Malaysia, 1971–2003 (% of GDP)

Sector	1970	1975	1980	1985	1990	1995	2000	2003
Agriculture, forestry, livestock, and fishing	26.7	24.5	21.0	19.1	16.3	10.3	8.9	8.7
Mining and quarrying	16.5	12.2	12.1	12.5	9.4	8.2	7.3	7.2
Manufacturing	12.2	15.3	17.2	17.3	24.6	27.1	31.9	30.8
Construction	2.1	2.4	2.7	3.2	3.5	4.4	3.3	3.2
Electricity, gas, and water	2.9	2.9	3.6	3.7	2.7	3.5	3.9	4.1
Transport, storage, and communication	7.1	7.0	7.4	7.5	6.7	7.4	8.0	8.6
Wholesale and retail trade, hotels and restaurants	5.9	7.9	9.2	10.3	13.2	15.2	14.8	14.3
Finance, insurance, real estate, and business services	7.3	7.6	7.1	7.7	8.2	10.4	12.7	15.1
Government services	8.2	9.6	9.0	10.7	8.8	7.1	6.8	7.4
Other services	6.1	6.9	6.8	6.8	7.2	7.7	7.6	8.0
(-) Imputed bank service charges	0.9	1.2	1.8	3.2	4.4	5.3	7.5	9.8
(+) Import duties	5.9	4.8	5.6	4.6	3.7	4.1	2.2	2.2

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

Industrialization and trade

Industrialization policy

In the early 1970s, Malaysia concentrated on agriculture and labour-intensive processing and assembly-type industries, such as textiles and electronics, to utilize the abundance of cheap labour. A key element of this strategy was to attract foreign direct investment to achieve high economic growth through industrialization. The 1970s also saw a shift in Malaysia's industrialization efforts from an emphasis in import substitution in the 1960s to export promotion. This was prompted by the saturation of the domestic market and the lack of linkages with the other sectors of the domestic economy as import-substitution industries relied heavily on imported inputs. On the other hand, export promotion provided industries the opportunity to enlarge their markets and achieve greater economies of scale. It also forced industries to compete in international markets.

To encourage export-oriented industries, the government introduced export-refinancing facilities in 1977 to provide credit facilities at preferential rates to Malaysian exporters of manufactured goods. The government also established industrial estates and Free Trade Zones (FTZs) in designated regions of the country. Export incentives provided included export allowance based on export sales and tax deductions for promotional expenses in overseas markets.

The rapid growth of the manufacturing sector resulted in part from generous government incentives and the availability of infrastructure. During the 1970s and 1980s, the government encouraged resource-based manufacturing that would utilize local resources and labour-intensive production, which was seen to provide the best option in terms of growth, trade balance, and sectoral linkages. However, electronics continued to be the star performer in terms of output, employment, and exports. In the mid-1990s, the government established the MSC and began to encourage information and communications technology (ICT) companies to invest in Malaysia. This is in line with the country's vision of a knowledge economy alongside the development of a skilled workforce.

Trade

Malaysia is an open economy and its rapid economic growth since 1970 has been closely associated with international trade, and the role of manufacturing has been crucial. An unprecedented shift occurred in the composition of exports after 1985. In that year, the three major groups—agriculture, mining, and manufacturing—contributed roughly one-third each to total exports. Just five years later, the share of manufactured exports had reached half, and by 1995, almost 80 per cent and in 2000, over 85 per cent (Table I.9). As for imports, the share of consumption goods declined steadily, and the share of intermediate goods increased from less than half in the 1985-95 period to almost three-quarters in 2000-3.

Table I.9 Structure of Merchandise Trade, Malaysia, 1980–2003 (% share)

	1980	1985	1990	1995	2000	2003
Exports						
Agriculture	39.8	29.7	19.6	11.7	6.1	8.3
Mining	32.7	33.3	18.3	5.8	7.2	7.7
Manufacturing	22.4	32.8	58.8	79.6	85.2	82.0
Others	5.1	4.3	3.3	2.9	1.5	2.1
TOTAL	100	100	100	100	100	100
Imports¹						
Consumption goods	18.2	20.3	7.9	6.2	5.5	5.9
Capital goods	30.0	31.1	18.9	20.1	14.2	13.7
Intermediate goods	50.1	47.7	65.1	65.0	74.7	73.3
Dual use goods			3.9	2.8	2.1	2.2
Others			0.2	0.0	1.5	2.1
Imports for re-export	1.7	0.9	4.0	3.7	2.1	2.7
TOTAL	100	100	100	100	100	100

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years; Bank Negara, 2003.

Note: Totals may not add up to 100 due to rounding.

1. Data for 1980 and 1985 are based on imports by Economic Function (BNM) and starting 1990, data are based on Broad Economic Categories (BEC).

Though the composition of traded goods underwent significant change, change was less evident in the direction of trade. The main destinations for exports continued to be the USA, the European Union, Japan, and the Association of South-East Asian Nations (ASEAN) countries (Table I.10). The only marked trend was Japan's decline as an export

destination, from 23 per cent of exports in 1980 to 13 per cent in 2000. There were no marked changes in the sources of imports, although the decline in Australia's share and rise in ASEAN's share can be noted.

Table I.10 Direction of Trade, Malaysia, 1980–2000 (% share)

	1980		1990		1995		2000	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
USA	16.4	15.0	16.9	16.7	20.7	16.2	20.5	16.6
European Union	16.9	15.4	14.9	14.6	14.2	15.4	13.7	10.8
United Kingdom	2.8	5.4	3.9	5.5	4.0	2.8	3.1	2.0
Germany and Netherlands	9.6	6.0	6.5	5.0	5.6	5.1	6.7	3.7
Australia	1.4	5.5	1.7	3.7	1.5	2.7	2.5	1.9
Japan	22.8	22.9	15.8	24.0	12.7	27.3	13.1	21.0
South Korea	n/a	n/a	4.6	2.6	2.8	4.1	3.3	4.5
China	1.7	2.3	2.1	1.9	2.7	2.2	3.1	4.0
Hong Kong	n/a	n/a	3.2	1.9	5.4	2.2	4.5	2.7
Taiwan	n/a	n/a	2.2	5.5	3.1	5.1	3.8	5.6
ASEAN	22.4	16.5	28.9	18.9	27.2	17.4	26.5	24.1
Singapore	19.1	11.7	22.7	14.9	20.3	12.4	18.4	14.4
Other countries	18.4	22.3	9.7	10.2	10.1	7.6	9.0	8.8
TOTAL	100	100	100	100	100	100	100	100

Sources of data: Malaysia, Ministry of Finance, *Economic Report*, various years.

Balance of payments

Table I.11 shows trends in Malaysia's balance of payments over the last two decades of the twentieth century. Malaysia's merchandise account has traditionally been in surplus, and this was clearly the case over this period, except in 1995. In that year, the balance on current account had a larger negative value than usual, indicative of the looming crisis which struck in 1997. Substantial net capital inflows were also characteristic of the entire period, especially in 1995 due to large foreign borrowing by the non-financial public enterprises and inflows of foreign direct investments. This resulted in further deterioration in the current account through the large outflows of net services and increased imports. Some observers perceived this as a weakening of the Malaysian currency, thus setting the stage for the ensuing financial crisis.

Prices

An inflationary spiral has been the serious enemy of economic growth and improved equity in many countries. Malaysia has avoided this problem over the years, experiencing generally low rates of inflation. Figure I.3 shows the trends since the second oil shock of 1979 caused price indices to spike. From 1983 onwards, consumer prices generally rose by less than 4 per cent per annum. A small spike in 1998 accompanied the weakening

of the Ringgit during the financial crisis. The subsequent pegging of the Ringgit in 1998 contributed to the stabilization of domestic consumer prices. Producer prices were more variable over the period, as a result of volatility in prices of electronics, petroleum, and primary commodities.

Table I.11 Balance of Payments, Malaysia, 1970–2000 (% of GDP)

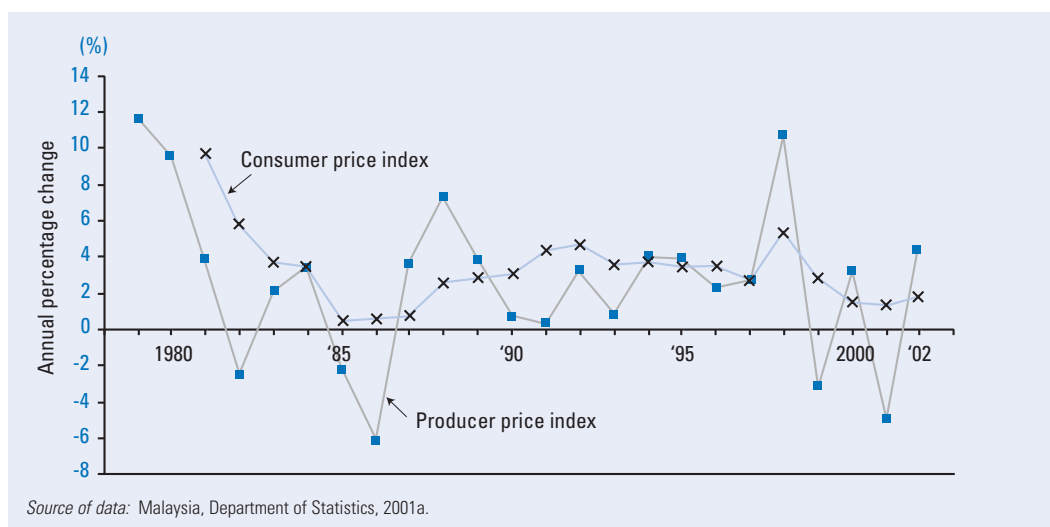
	1970	1975	1980	1985	1990	1995	2000 ¹
Merchandise FOB (net)	8.5	2.7	9.8	11.4	6.0	0.0	23.1
Exports	39.9	40.5	52.5	48.1	65.0	85.7	109.0
Imports	31.4	37.8	42.7	36.7	59.1	80.6	85.9
Services (net) incl investment income	-6.8	-7.7	-10.9	-13.3	-8.2	-8.6	-11.5
Balance on current account	0.2	-5.3	-1.2	-1.9	-2.1	-9.7	9.4
Long term capital	2.5	7.6	4.1	5.4	2.9	7.5	-7.0 ²
Basic balance	2.7	2.3	3.0	3.5	0.8	-2.3	–
Private short-term capital	-0.1	-0.4	1.7	1.1	1.1	1.1	–
Errors and omissions (net)	-2.1	-1.1	-2.8	-0.5	2.5	-0.9	-3.5
Overall balance	0.5	0.8	1.9	4.1	4.5	-2.0	-1.1

Source of data: Malaysia, Department of Statistics, 2001a.

Note: 1. For 2000, data compiled based on IMF's Balance of Payments manual, 5th Edition.

2. Financial Account (Long-term and Short-term Capital).

Figure I.3 Annual Change in Consumer and Producer Prices, Malaysia, 1980–2002 (%)



Social sector policies

Social developments and economic developments are interrelated. Social change is an integral component of economic development and not just its by-product. While economic growth leads to improvements in the quality of life, a better quality of life enables the population to participate more fully in economic development. The commitment to socio-economic development can be seen in the strategic thrusts of all three national development policies outlined earlier, where poverty eradication was a constant and integral component of all development policies. This commitment is also reflected in the steadily and substantially rising share of the social sector in total public development expenditure—from 11 per cent in 1970 to 45 per cent in 2003 (Table I.12). In addition, expenditure on economic services included the provision of public utilities (such as electricity, piped water, and sewerage services), and infrastructure and transport to both rural and urban areas, enhancing the quality of life.

Education and health have been the sectors mainly responsible for the sharp rise in the social services' share of development budgets. Education receives the major share of federal government development expenditure on social services. Over the second half of the 1990s, enrolments expanded rapidly at both the bottom rung and the top rung of the education ladder—in pre-school education and in tertiary education respectively. Both these levels of education make an important contribution to building the quality of the nation's human resources.

Table I.12 Federal Government Development Expenditure by Sector, Malaysia, 1970–2003 (% of Total Development Expenditure)

Sector	1970	1980	1990	2000	2003
Security	23.7	16.4	9.9	8.3	15.3
Social services	11.2	15.9	24.5	39.6	45.0
Education	6.1	7.5	15.3	25.4	25.9
Health	2.8	1.1	4.3	4.6	6.8
Housing	–	4.0	0.4	4.3	4.9
Others	–	–	4.5	5.4	7.4
Economic services	62.2	64.8	62.7	41.7	35.0
Agriculture and rural development	27.3	15.2	12.1	4.2	4.1
Public utilities	2.8	8.9	7.5	5.4	2.3
Trade and industry	13.8	20.8	25.5	13.1	8.8
Transport	11.0	13.8	17.3	17.4	18.7
Communication	7.3	5.7	0.0	0.8	1.0
Others	–	–	0.3	0.6	1.1
General administration	2.9	3.0	2.9	10.4	4.7

Sources of data: Malaysia, Ministry of Finance, *Economic Report*, various years.

Malaysia's MDG performance

The chapters that follow in this report present more explicitly the evidence base of Malaysia's progress towards the MDGs—the policies, strategies, and programmes that were adopted to achieve them and the challenges that lie ahead. The following pages outline the challenges facing Malaysia in 1970 with respect to each of these goals, and briefly summarize the main elements of progress.

MDG 1 Eradicate extreme poverty and hunger

Poverty eradication is the supergoal among the MDGs, and Malaysia's story in this regard is remarkable. Just below half of all households were poor in 1970. This proportion was halved in about 15 years, and more than halved again in the next 15 years. By 2002, just 5.1 per cent of households were poor. This success is not merely a 'statistical' one based on setting the poverty line very low. Malaysia sets its poverty line at a higher standard of living than the US\$1 PPP standard poverty line used by many countries and, in comparison with these countries, overestimates rather than underestimates the incidence of poverty.

Although poverty varies considerably by state and ethnic group, in no part of the country is there any longer a very high incidence of poverty. The highest incidences are in Sabah (16 per cent) and Kelantan (12 per cent). Ethnic differences remain marked (poverty incidence in 2002 being 7.3 per cent for *Bumiputera*, 1.5 per cent for Chinese, and 1.9 per cent for Indians), but at a much lower level of incidence of poverty than previously. The vast majority of remaining poor households are *Bumiputera*, with a significant proportion of these being the *Orang Asli* and the indigenous communities of Sabah and Sarawak.

Sustained economic growth and a commitment by the government to poverty elimination were crucial elements in this success story. Three strategic poverty-reducing approaches were employed. The first was a strong emphasis on agricultural and rural development to raise the income of poor farmers and agricultural workers by raising their productivity. This included *in situ* agricultural development and the opening of new agricultural land. The second was the emphasis on labour-intensive export industrialization to absorb poor workers from both rural and urban areas. The third was the channelling of public investment into education, health, and basic infrastructure, especially in rural areas, to raise the living levels of the poor. The government's steady revenue growth and continued political stability have enabled these policies to be pursued uninterruptedly.

During the 1970–90 period, poverty reduction occurred in tandem with the reduction in personal, ethnic group, and geographical income inequalities. Over the 1990–2002 period, poverty reduction was accompanied by some increase in inequalities within each of these three categories. This is a key challenge. Other challenges relate to specific categories of the poor, requiring different approaches. These include female-headed households and the isolated elderly, non-citizens (unskilled foreign workers, both legal and illegal), and *Orang*

Asli, 51 per cent of whom live in poverty. With continuing urbanization, there are substantial numbers of poor in urban areas, even though urban poverty rates overall are low.

MDG 2 Achieve universal primary education

In 1970, one-third of Malaysia's population aged 6 and over had never attended school, with some 12 per cent of all primary school-age children not in school. But by 1990, Malaysia had essentially achieved the goal of universal primary education—not only in terms of enrolment ratios, but also in terms of the number of primary school children completing primary school education (which was above 97 per cent). This was accomplished despite the continuing increase in the number of school-aged children. The provision of educational infrastructure to ensure access of the rural poor to education was central to this success. Specific programmes included an ongoing textbook loan scheme for which the great majority of primary pupils are eligible; supplementary feeding scheme, school health programme, and school milk programme, which have both improved health and raised the attendance of children from poor families; and provision of hostels, mainly in Sabah and Sarawak. Quality of the teaching force has been upgraded, with the current goal of raising the proportion of primary teachers with a university degree to 50 per cent. The costs of education to poor families have been kept low by making education free and providing assistance for indirect costs, such as school uniforms and shoes, besides providing scholarships and other financial assistance to poor families.

Though the MDG goal has been reached, however, the more elusive goal may be that of ensuring access of the poor to quality education. The Malaysian education sector's strategic thrust is now to reduce the gap in student performance between the urban and rural areas and among the states, to improve the delivery system in line with technological change, and to create a knowledge-based economy. A number of programmes are directed to quality enhancement in rural schools. These include building extra classrooms and consolidating rural schools with low enrolments to provide better service. Many issues remain, however. The digital divide between rural and urban children is wide. Access of rural children to pre-schools is low. Keeping good teachers in rural areas, as well as providing good education in isolated areas, remains a challenge.

Achieving universal primary education does not greatly reduce the pressure on educational budgets. These have continued to rise as a share of development expenditure, mainly because of the continuously increasing investment in secondary and higher education.

MDG 3 Promote gender equality and empower women

The single target of the MDG is to eliminate disparities in primary and secondary education. Additional ones used in the Malaysian assessment are the share of women in wage employment in the non-agricultural sector and the proportion of seats held by women in national parliaments.

Historically, girls had unequal access to primary and secondary schooling. This gender disparity had largely disappeared at the primary level by 1970, and in the most recent years

girls outnumber boys both in secondary school enrolment (in all states) and more conspicuously at the tertiary level, reflecting in part the much greater number of females than males seeking tertiary teaching and nursing qualifications. This has flowed through to some extent into employment and political life. The picture provided by female labour force participation rates is a rather static one, with rates remaining unchanged over the past quarter century at around 47 per cent. Women's share of non-agricultural employment has risen, however, marked by a sharp increase in female manufacturing employment in the 1980s and in services in the 1990s.

The proportion of all employed women who were in the key occupational sectors for well-educated workers (professional, managerial, and clerical) rose sharply between 1980 and 2000. This is an encouraging sign, though in the professions, women were concentrated in teaching, nursing, and accounting. In political life, although women's share of appointed seats in the Senate has risen substantially, their numbers as elected members in Parliament, and especially in state legislatures, remain very small.

Administratively, the aim of women's advancement has received considerable attention. The five-year development plans from the Third Malaysia Plan on have paid increasing attention to gender issues, various groups advising the government on women's affairs were appointed, the National Policy for Women was adopted in 1989, and the Ministry of Women, Family and Community Development established in 2001. A number of measures to improve the legal status of women have been adopted, and gender analysis training and sensitization has been conducted with policy makers and programme implementers, officers from the Islamic Syariah courts, and law enforcers. Many issues remain, in particular enabling women to better balance their work, childcare, and household duties and changing men's attitudes to sharing family responsibilities.

MDG 4 Reduce child mortality

Infant and child mortality rates have been reduced from already moderately low levels in 1970 to levels prevailing in highly developed countries (6.2 and 8.6 per 1000 live births, respectively, in 2002). Ethnic differentials have been sharply reduced, especially in the 1990s, and rural-urban differences have also narrowed. State differences in infant mortality rates (IMR), though still quite large in relative terms, are quite small in absolute terms, because mortality rates have reached such low levels.

The core of Malaysia's success has been a well-developed primary health care system, capable of bringing medical advances, including vaccines and oral rehydration for the treatment of diarrhoea, to the poor. Together with improved access to clean water, improved sanitation, and better child nutrition, reinforced by programmes to reduce poverty, increase literacy, and the provision of modern infrastructure, these health benefits have had a demonstrable impact. Increasing access to basic child health care has been made possible by the extensive network of health centres and clinics, supported by trained midwives and other health workers, and delivered through an integrated maternal and child health (MCH) programme. Upgrading the training level of public health nurses and midwives to the community nurse conversion programme has served to bring child health services closer to homes and communities.

As health is closely related to socio-economic development and empowerment of women, the increased education of women, later marriage, and lower fertility rates achieved over the period undoubtedly played an important part in achieving declines in infant mortality.

A relatively high proportion of the development budget has been spent on health. The Malaysian government saw promotion of health as an integral component of its rural development strategies and programmes, with prevention of communicable diseases, including malaria and tuberculosis, clean water and sanitation, maternal and child health, and nutrition and health education, as major health elements. Key causes of child mortality were identified and targeted through nutrition programmes, immunization (measles immunization for infants was made a national programme from 1986, as part of the Expanded Programme of Immunization for Children), management of childhood diarrhoea with oral rehydration therapy from the mid 1980s, and management of acute respiratory infections.

MDG 5 Improve maternal health

The maternal mortality rate (MMR) in Malaysia fell from 141 per 100,000 live births in 1970 to 20 in 1990, with not much change since then. This rate is less than one-tenth of that in a number of neighbouring countries. The overall decline has been accompanied by a narrowing of differentials between *Bumiputera* and other ethnic groups, and between states.

Causes of this decline include the broad and sustained attack on poverty, along with a strategic approach to improving maternal health, with six key elements: (i) improve access to, and quality of care of, maternal health services, including family planning, by expanding health care facilities in rural and urban areas; (ii) upgrade the quality of essential obstetric care in district hospitals, with a focus on emergency obstetric care services; (iii) streamline and improve the efficiency of referral and feedback systems to prevent delays; (iv) increase the professional skills of trained delivery attendants to manage pregnancy and delivery complications; (v) implement an effective monitoring system; and (vi) work closely with communities to remove social and cultural constraints and increase acceptability of modern maternal health services.

Almost all births in Peninsular Malaysia are now attended by skilled health personnel. Midwifery has been professionalized, with the establishment of midwifery schools and the subsequent upgrading of midwives to community nurses, who are in turn supervised by a trained nurse or midwife and public health nurse at the health centre, who attends to referrals. Traditional birth attendants (TBAs) have been trained to avoid harmful traditional practices, to recognize the danger signs of pregnancy and delivery, and to work in partnership with government midwives. The actual involvement of TBAs in deliveries has decreased markedly. A remaining challenge is to lower the *Bumiputera* MMR to that of the Chinese.

MDG 6 Combat HIV/AIDS, malaria, and other diseases

Malaysia has had great success in virtually eliminating malaria from urban and other densely populated areas, and achieving a particularly notable reduction in incidence of the disease over the 1990s, especially in the two states of Peninsular Malaysia with the

highest rates, Pahang and Kelantan. Malaria remains much more of a problem, however, in Sabah and Sarawak. Malaysia's success in combating malaria resulted from understanding the location-specific epidemiology of malaria around the country; adopting a combination of strategies targeting the host, parasite, mosquito, and environment; integrating, collaborating, and coordinating resources; and having a clear policy, defined targets, and legislative support.

The picture with respect to HIV/AIDS and tuberculosis is less encouraging. In Malaysia, detected cases of HIV are predominantly male (93 per cent), and predominantly Malay, and they mainly occur among injecting drug users. The cumulative number of reported HIV cases doubled between 1992 and 1994; it doubled again in 1997, and yet again in 2002. This is what the World Health Organization (WHO) calls a concentrated epidemic: low HIV prevalence among the general population, but consistently higher than 5 per cent among injecting drug users. The predominant modes of transmission are sharing of needles by drug users (76 per cent) and sex between men (12 per cent). The MDG target of halting and reversing the spread of HIV/AIDS by 2015 therefore appears extremely challenging.

The Malaysian government has legislated to ensure that HIV/AIDS cases are notified to the relevant health authorities, and established a National AIDS Task Force in 1988. This was replaced in 1993 by the National Committee on AIDS, which is backed by state coordinating committees and AIDS action teams at the district level. The Ministry of Health (MOH) is the main agency responsible for disseminating awareness messages, assisted by other government agencies, non-governmental organizations (NGOs) (coordinated by the Malaysian AIDS Council), and international agencies. One key approach to raising public awareness has been to secure the involvement of religious leaders. Another has been to organize a large-scale education programme on HIV/AIDS for youths known as *Program Sihat Tanpa AIDS untuk Remaja* (PROSTAR), which uses peer education to disseminate messages. The concentration of HIV/AIDS among injecting drug users provides a focus for future efforts to contain the epidemic, but at the same time poses great challenges. The number of drug users shows no signs of decreasing; harm-reduction programmes are not authorized; NGOs working with drug users or former drug users have limited resources; and work with drug users is not considered part of the national HIV prevention strategy.

Tuberculosis (TB) remains a difficult disease for Malaysia to overcome. It registers the highest number of deaths from any infectious disease, and the number of deaths rose steadily in the mid to late 1990s. WHO ranks Malaysia as a country with an 'intermediate' burden of TB, and describes its TB notification rate as 'high relative to its level of development'. A sustained and effective TB control programme is essential. Strategies adopted include BCG vaccination for all newborn babies; screening of symptomatic and high-risk groups; raising of awareness of the disease through the mass media; training of health staff about the disease; further research on prevalence and resistance; and case detection and free treatment using WHO's DOTS strategy.

Both HIV/AIDS and TB are related to social problems, namely, rural and urban poverty, and intravenous drug use. They have no easy technological 'fix', and efforts to tackle both

must deal with ignorance and an 'image' problem because of their relationship to drug addiction and poverty respectively. The increased number of TB with HIV co-infection cases is a matter of concern.

MDG 7 Ensure environmental sustainability

Rapid economic development in both urban and rural areas has led to environmental challenges. As in other countries, dealing with these has been a learning process, but the principles of sustainable development have gradually been integrated into national development policies at the highest level of planning and policy making. Since the Third Malaysia Plan (1976–80), principles of sustainable development have been incorporated into national development and sector strategies. Forest cover in Malaysia has been retained at 59.5 per cent, in adherence with Malaysia's commitment towards retaining at least 50 per cent forest cover. In the field of energy, the use of which is increasing with economic growth, there have been efforts at promoting efficient utilization, discouraging wasteful patterns of energy consumption, and diversifying energy sources.

Clean water supply can be ranked a great success in Malaysia, as 98 per cent of urban and 87 per cent of rural populations are now served with clean piped water. There has been a problem, though, of water pollution in some districts, mainly attributable to opening up of land for housing development, rural development (especially large-scale land settlement schemes), active logging and mining activities, and general infrastructure development. The palm oil industry achieved the target of 'zero discharge' of pollutants through research and development, notably focused on converting palm oil wastes into economically useful by-products.

Future challenges abound. There is a need to further strengthen the coordinated approach between the federal and state governments, for example, in uniform implementation of national forest management policies at the state level. In the energy field, additional capacity must be developed; Malaysia has considerable hydroelectric potential, but developing this is capital-intensive and often has major socio-economic impacts. Effective enforcement could further improve the air quality that has been exacerbated by the increasing number of vehicles, especially in major towns, and the growth of the industrial sector through the burning of fossil fuels.

MDG 8 Develop a global partnership for development

Malaysia received mainly non-concessional loans from the 1970s onwards, largely from multilateral financial institutions, such as the World Bank (WB), the Asian Development Bank (ADB), and the Islamic Development Bank (IDB). These loans reached insignificant levels by the 1990s, but were resumed to finance development needs during the 1997 regional financial and economic crisis. At the same time, technical assistance was also received from bilateral sources, predominantly from Japan, as well as from multilateral sources.

Malaysia has participated actively in regional groupings such as the Association of South-East Asian Nations (ASEAN) and of Asia-Pacific Economic Cooperation (APEC) to enhance interregional trade, investment opportunities, and production networks, and to

increase financial and industrial cooperation among countries of the region. It has also participated in three regional growth triangles. Malaysia has progressively dismantled its tariff structures to promote the free flow of goods and services to most developing and developed countries. Malaysia is now increasingly sharing its knowledge and experience in economic and social transformation with other countries, and has embarked on a programme of cooperation with other developing countries through the Malaysian Technical Cooperation Programme. This focuses primarily on capacity building and human resource development, rather than provision of development funds. Modalities include long-term courses at tertiary level; short-term specialized training courses, study visits, and practical attachments; expert and advisory services; and project-type and equipment supply cooperation. The number of countries served by this programme has reached 135 as of 2004.

Summing up

The relatively favourable position that Malaysia now occupies in economic and social development owes much to the innovative policies and strategies for development put in place in the OPPs and implemented through the national five-year plans. Many of the issues that have since emerged internationally in the MDGs and their related targets were identified in early official policies and became progressively more explicit as initial aims were achieved. But some of these issues still represent a significant challenge for the country as it seeks to maintain its developmental momentum.

Malaysia's success in reaching the MDGs is impressive by any standard. An analysis of the factors behind this success can further encourage Malaysia's planners in their continued efforts and also be useful to other countries looking for ways to progress towards the MDGs. The *Orang Asli* and indigenous communities in Sabah and Sarawak in particular have still to benefit substantially from poverty-eradication measures.

Various environmental challenges still remain. Malaysia's task in reaching the MDGs is an ongoing one. The way forward is to progress beyond current achievements and implement the strategies, programmes, and projects designed to achieve the NVP.

Annexe I.1

The Millennium Development Goals

In 2000, at the United Nations Millennium Summit, 189 world leaders committed their countries to strengthening global efforts for peace, democracy, good governance, environmental sustainability, and poverty eradication, as well as to promoting the principles of human rights, human dignity, equality, and equity.

The Millennium Declaration, adopted at the Summit, agreed to collective commitments to overcome poverty through a set of mutually reinforcing interrelated time-

bound development goals with related targets. The road map that was developed to guide these efforts resulted in the identification of the MDGs, comprising 8 goals, 18 targets, and 48 indicators. The MDGs, and their related targets, have since become the principal focus for international development cooperation, and they have inspired numerous bold and innovative initiatives for reducing the many dimensions of poverty.

In contrast to the objectives of many earlier development efforts that focused primarily on economic growth, the MDGs address many of the most enduring failures of human development, placing human well-being and poverty eradication at the centre of global development aims. Further, the MDGs call for a global partnership for development. While they commit developing countries to taking poverty-reducing actions and improving social and environmental outcomes, they also call upon developed countries to increase development assistance and expand market access by reducing trade tariffs and agricultural subsidies, as well as supporting technology transfers for their achievement. The MDGs are benchmarks of progress that provide building blocks for human development. They are, for the most part, the product of the global United Nations conferences of the 1990s and many national, regional, and international consultations on development issues. Although the MDGs originated in the United Nations, they require strong national ownership and can be achieved only if they are country-driven.

Despite the higher living standards that globalization (backed by good economic governance) has achieved in parts of the world, hundreds of millions of people have suffered reversals rather than advances, and many fight daily for survival from hunger and poor health. There are many reasons for this inequity, many of them partially or totally beyond the control of individuals and often of governments.

Although the overall goals and targets for improved human well-being are the same worldwide, the circumstances and needs of every country are different and the measures to achieve desired outcomes will vary. It is well understood that one size does not fit all. To assist countries to negotiate the road map that will help them to achieve the aims of the Millennium Declaration, the MDGs identify the broad thrust of what needs to be achieved, eradicated, improved, or promoted as part of the development process. However, the MDGs are still very broad concepts and so, within each, and in order to provide greater specificity for national policies and strategies, there is at least one specific target. Thus, while MDG 1 aims to 'eradicate extreme poverty and hunger', this general goal has the specific target to 'halve the proportion of people whose income is less than one dollar a day'. Most targets further sharpen the focus for achieving the desired outcome by placing a time constraint for fulfilment: in the case of poverty eradication, for instance, the aim is to meet the target by 2015.

In order to assist in assessing the effectiveness of the steps being implemented to achieve these goals and targets, one other descriptor has been added to the process: indicators. Even though development policies and strategies may have been formulated with the specific MDG and targets in view, their impact is not confined to these outcomes but is much more widespread, which can be a positive and desirable consequence. Indicators provide a method of sampling, measuring, and monitoring some of the wider

ramifications as development proceeds without awaiting the consummation of goals and targets by the designated year.

The strength of the MDGs, their targets and indicators, is that performance is not measured against wealthier countries or better performing countries but against a country's own capacity and achievements so far. **Halving, reducing, improving:** these are actions based on the reality of the individual country's resources, energies, participation, and capabilities, rather than on an abstract notion of development or the achievements of other countries. While this may not make the MDGs any easier to achieve, the process is an inclusive one, embracing every signatory country within the ambit of the Millennium Declaration, and including each country as a beneficiary of the commitment of support from all other countries, whether rich or poor, achieving or not achieving.

A further feature of the MDGs, and more particularly their targets, is that they have been set up to be time-bound. Earlier attempts at expediting the development process on a global scale have generally been open-ended. The span of time allotted varies according to the enormity of the task but in many instances the aim is to achieve the target by 2015. Critical to any measurement of achievement is the starting point—the baseline or benchmark from which change is assessed. Again, while there is some variation, the common starting year is 1990. This therefore takes account of successes already achieved in the run-up to the Millennium Declaration and has launched most countries subscribing to achievement of the MDGs along this path at about the middle of the designated period of 25 years.

In some instances, the earlier date raises difficulties of assembling the appropriate data for establishing the baseline to measure performance. Most countries are able to compile the requisite information that enables them to approximate the status of MDG and target variables at that time, and the virtue of the system is that whatever the levels are set at, these are simply a convenient basis for internal assessment of a country's own movement along the development path.

Ultimately, success will not be judged simply by achieving the MDGs and their targets on time. Halving poverty by 2015, for example, is not the end of the road, because even when countries are partly or wholly successful, they must continue to halve it again and again, and countries are not to be held to account if they have not achieved their targets on time. But achievement of development goals opens up real choices and new vistas for countries that have the capacity and the vision to move beyond these fundamental but essential achievements.

National progress towards achieving the MDGs is being monitored at two levels—first, through periodic country reports prepared by national stakeholders; second, through annual reports of the United Nations Secretary-General to the United Nations General Assembly. In 2005, there will be a major review of progress at the General Assembly by world leaders. This report is Malaysia's contribution to that stocktaking.

Millennium Development Goals: targets and indicators

goals and targets	indicators for monitoring progress
GOAL 1: ERADICATE POVERTY AND HUNGER	
TARGET 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1a. Proportion of population below \$1 (PPP) per day ^a 1b. Poverty headcount ratio (% of population below the national poverty line) 2. Poverty gap ratio (incidence x depth of poverty) 3. Share of poorest quintile in national consumption
TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4. Prevalence of underweight children under five years of age 5. Proportion of population below minimum level of dietary energy consumption
GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION	
TARGET 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	6. Net enrolment ratio in primary education 7a. Proportion of pupils starting grade 1 who reach grade 5 7b. Primary completion rate 8. Literacy rate of 15–24 year olds
GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN	
TARGET 4: Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015	9. Ratios of girls to boys in primary, secondary and tertiary education 10. Ratio of literate women to men 15–24 years old 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in national parliament
GOAL 4: REDUCE CHILD MORTALITY	
TARGET 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	13. Under-five mortality rate 14. Infant mortality rate 15. Proportion of one-year-old children immunized against measles
GOAL 5: IMPROVE MATERNAL HEALTH	
TARGET 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel

^a For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

goals and targets	indicators for monitoring progress
GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES	
TARGET 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	18. HIV prevalence among 15–24 year old pregnant women 19. Condom use rate of the contraceptive prevalence rate ^b 19a. Condom use at last high-risk sex 19b. Percentage of population aged 15–24 with comprehensive correct knowledge of HIV/AIDS ^c 19c. Contraceptive prevalence rate 20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14
TARGET 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	21. Prevalence and death rates associated with malaria 22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures ^d 23. Prevalence and death rates associated with tuberculosis 24. Proportion of tuberculosis cases detected and cured under Directly Observed Treatment, Short course (DOTS)
GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY	
TARGET 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	25. Proportion of land area covered by forest 26. Ratio of area protected to maintain biological diversity to surface area 27. Energy use (kg oil equivalent) per \$1 GDP (PPP) 28. Carbon dioxide emissions (per capita) and consumption of ozone-depleting CFCs (ODP tons) 29. Proportion of population using solid fuels
TARGET 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	30. Proportion of population with sustainable access to an improved water source, urban and rural 31. Proportion of urban and rural population with access to improved sanitation
TARGET 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	32. Proportion of households with access to secure tenure

^b Amongst contraceptive methods, only condoms are effective in preventing HIV transmission. The contraceptive prevalence rate is also useful in tracking progress in other health, gender, and poverty goals. Because the condom use rate is only measured amongst women in union, it is supplemented by an indicator on condom use in high-risk situations (indicator 19a) and an indicator on HIV/AIDS knowledge (indicator 19b).

^c This indicator is defined as the percentage of population aged 15–24 who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can transmit HIV. However, since there are currently not a sufficient number of surveys to be able to calculate the indicator as defined above, UNICEF, in collaboration with UNAIDS and WHO, produced two proxy indicators that represent two components of the actual indicator. They are: (a) Percentage of women and men 15–24 who know that a person can protect herself from HIV infection by “consistent use of condom”. (b) Percentage of women and men 15–24 who know a healthy-looking person can transmit HIV. Data for this year’s report are only available on women.

^d Prevention to be measured by the percentage of children under-5 sleeping under insecticide-treated bednets; treatment to be measured by percentage of children under-5 who are appropriately treated.

goals and targets	indicators for monitoring progress
GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT	
<p>TARGET 12: Develop further an open, rule-based, predictable, non discriminatory trading and financial system. Includes a commitment to good governance, development and poverty reduction—both nationally and internationally</p> <p>TARGET 13: Address the special needs of the least developed countries. Includes: tariff and quota free access for least developed countries' exports; enhanced programme debt of relief for HIPC and cancellation of official bilateral debt, and more generous ODA for countries committed to poverty reduction</p> <p>TARGET 14: Address the special needs of landlocked countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)</p> <p>TARGET 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.</p> <p>TARGET 16: In cooperation with developing countries, develop and implement strategies for decent and productive work for youth</p> <p>TARGET 17: In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries</p> <p>TARGET 18: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications</p>	<p>Official development assistance</p> <p>33. Net ODA, total and to LDCs, as percentage of OECD/DAC donors' gross national income</p> <p>34. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)</p> <p>35. Proportion of bilateral ODA of OECD/DAC donors that is untied</p> <p>36. ODA received in landlocked countries as proportion of their GNIs</p> <p>37. ODA received in small island developing States as proportion of their GNIs</p> <p>Market access</p> <p>38. Proportion of total country imports (by value and excluding arms) from developing countries and LDCs, admitted free of duties</p> <p>39. Average tariffs imposed by developed countries and agricultural products and textiles and clothing from developing countries</p> <p>40. Agricultural support estimate for OECD countries as percentage of their GDP</p> <p>41. Proportion of ODA provided to help build trade capacity</p> <p>Debt sustainability</p> <p>42. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)</p> <p>43. Debt relief committed under HIPC initiative, US\$</p> <p>44. Debt service as a percentage of exports of goods and services</p> <p>45. Unemployment rate of 15–24 year-olds, each sex and total^e</p> <p>46. Proportion of population with access to affordable, essential drugs on a sustainable basis</p> <p>47. Telephone lines and cellular subscribers per 100 population</p> <p>48a. Personal computers in use per 100 population and Internet users per 100 population</p> <p>48b. Internet users per 100 population</p>

^e An improved measure of the target is under development by ILO for future years.



MDG 1

Eradicate Extreme Poverty and Hunger

In 1970, Malaysia was predominantly a rural agricultural society with sharp spatial and ethnic disparities in income and social well-being. It set for itself an ambitious development goal of eradicating poverty. In just about 15 years from 1970, when half of all households were poor, Malaysia more than halved the incidence of absolute poverty. In another 15 years from the mid-1980s, Malaysia again more than halved the level of absolute poverty. By the early years of the new millennium (2002), just 5.1 per cent of households were poor.

With this track record, Malaysia can be classified as a success story in attacking absolute poverty, enabling it to reach the MDG target of halving poverty well before 2015. Malaysia is now close to having eradicated extreme poverty. How was this rapid progress achieved? What were the policies and programmes? How were constraints overcome? What are the lessons that can be learnt? This chapter presents Malaysia's record of achievements in overcoming poverty and the challenges remaining for the future.

Malaysia's experience in poverty reduction is of particular interest because it has been achieved in a multi-ethnic and culturally diverse setting. Furthermore, its economic growth strategy has integrated commitments to poverty elimination and restructuring of society as central objectives in its development vision.

Malaysia's impressive poverty reduction has been, in large part, due to sustained, albeit variable, economic growth—average annual growth rate of real GDP was 7 per cent over the last three and a half decades (Table 1.1). International evidence suggests that the rate of economic growth is a powerful influence on poverty reduction.

Table 1.1 Annual Growth Rates of Gross Domestic Product, Malaysia Five-Year Plan Periods (%)

	1st 1966–70	2nd 1971–5	3rd 1976–80	4th 1981–5	5th 1986–90	6th 1991–5	7th 1996–2000	8th* 2001–5
Average annual growth rate of real GDP (%)	5.4	7.1	8.6	5.8	6.7	8.7	4.7	7.5

Sources of data: Henderson et al, 2002; Malaysia, Economic Planning Unit, 2001a.

* Estimate.

Poverty is multidimensional. It is, of course, more than a lack of income. Poverty is also associated with lack of access to basic education, health (including reproductive health) services and information, shelter, clean water, and sanitation. Economic growth increases the income of the population and tends to reduce the number of poor people. Economic growth also increases the government's revenue, which can be used to provide basic social services and infrastructure. But economic growth alone is rarely a sufficient condition for poverty reduction.

Investing in increasing access to, and provision of, basic social services not only helps to provide opportunities for the poor, but also contributes to sustainable economic growth. Malaysia's impressive improvements in the social sectors can be seen in key

human development indicators. Between 1970 and 2000, life expectancy at birth rose sharply for females and males, the combined figure being from 64.2 to 72.8 years, while the infant mortality rate fell from 40.8 to 7.9 per 1,000 live births. Over the corresponding period, the adult literacy rate rose from 60 per cent to 94 per cent, and since 1990 primary school enrolment has been universal for both girls and boys.

Poverty definition

In Malaysia, the incidence of **absolute poverty** has traditionally been determined by reference to a threshold poverty line income (PLI). This PLI is based on what is considered to be the minimum consumption requirements of a household for food, clothing, and other non-food items, such as rent, fuel, and power (Box 1.1). There is no separate PLI for urban and rural households. The proportion of all households living below this threshold is the proportion living in poverty—that is the **poverty rate**. Poverty rates are available for household categories only: they are not available for individuals separately.

The concept of **hard-core poverty** was first used by the Malaysian government in 1989 to help identify and target poor households whose income is less than half of the PLI. It is one indication of the severity of poverty. The term hard-core poverty in Malaysia does not, however, indicate the duration of time spent living below the poverty line.

In addition to absolute poverty, the concept of **relative poverty** is used to assess income disparities between income groups. It is measured here by using income disparity ratios of income groups (top 20 per cent and bottom 40 per cent), and urban and rural dwellers. The Gini coefficient is also used to assess, in summary form, trends in income distribution.¹

There are, of course, many welfare measures that can be used in poverty assessments. Each has its strengths and limitations, and no one measure can capture the many dimensions of poverty. The basic indicators used in this chapter are built upon in later chapters which focus on other dimensions of poverty. For example, the education and health indicators used in Chapters 2 and 4 provide information about deprivations requiring policy support in those sectors. While there is overlap in the composition of the groups suffering various types of deprivation, the policy prescriptions differ.

¹ The Gini coefficient is a number between 0 and 1, where 0 means perfect equality (everyone has the same income) and 1 means perfect inequality (one person has all the income, everyone else has nothing). The lower the Gini coefficient, the more equal the distribution of income of a country.

Box 1.1 MALAYSIA'S POVERTY LINE

Malaysia's Poverty Line Income (PLI) is based on the minimum requirements of a household for three major components: food, clothing, and footwear, and other non-food items such as rent, fuel, and power; furniture and household equipment; medical care and health expenses; transport and communications; and recreation, education, and cultural services.

For the food component, currently the minimum expenditure is based on a daily requirement of 9,910 calories for a family of five persons, while the minimum requirements for clothing and footwear are based on standards set by the Department of Social Welfare for welfare homes. The assumed family of five consists of 1 adult male, 1 adult female, and 3 children of either sex aged 1–3, 4–6, and 7–9 years.

The other non-food items are based on the level of expenditure of the lower income households, as reported in the Malaysian Household Expenditure Survey (HES). The PLI is updated annually to reflect changes in the levels of prices by taking into account changes in the Consumer Price Indices. The PLI is calculated to reflect differences in prices and household size in Peninsular Malaysia, Sabah, and Sarawak.

The incidence of poverty is monitored through the Malaysian Household Income Survey (HIS). The HIS is conducted once in every two to three years and is primarily designed to collect information on household earnings, income sources, and other social data, such as education, health, water supply, electricity, housing, and mode of transport.

Poverty rates, as measured using Malaysia's PLI, differ

Poverty Line Incomes, 1990–2002

(RM per month per household)*

	1990	1995	1999	2002
Peninsular Malaysia	370	425	510	529
Sabah	544	601	685	690
Sarawak	452	516	584	600

* Adjusted based on an average household size of 4.6 in Peninsular Malaysia, 4.9 in Sabah, and 4.8 in Sarawak.

from those implied by the one US dollar a day (purchasing power parity) poverty line used by international organizations. The latter has fixed purchasing power across countries and, therefore, facilitates international comparisons more readily.

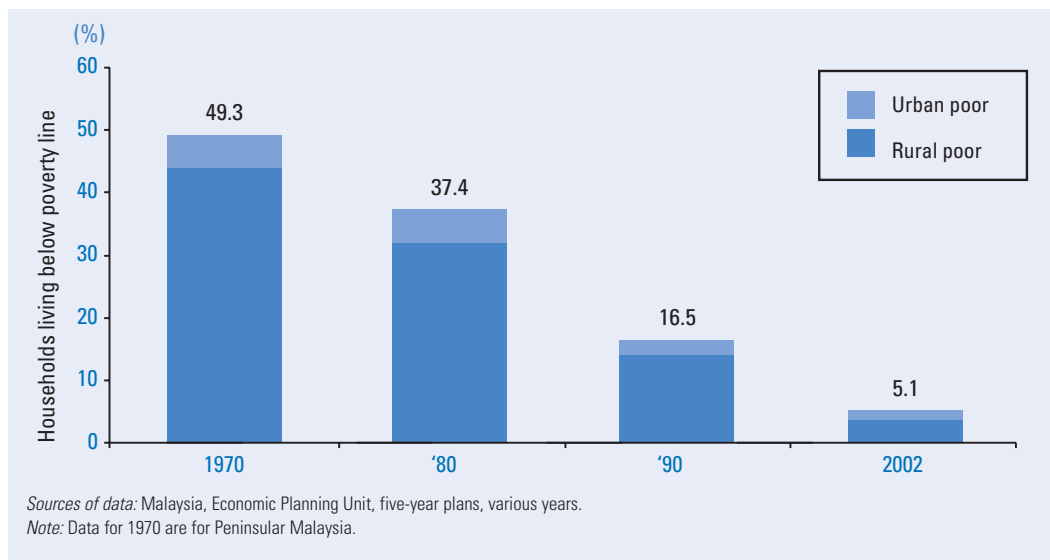
There are always conceptual and empirical problems in deciding what constitutes a minimum standard of living, as well as data problems in measuring it. In comparison with the US\$1 PPP standard poverty line, the Malaysian PLI, when converted on the basis of US\$1 PPP, results in a higher poverty rate because of its higher standard of living below which households are counted as poor.

The current methodology clarifies households as poor if their incomes are insufficient to meet the needs of around 5 persons. This may well exaggerate poverty rates of small households and underestimate the poverty rates of larger ones. The methodology for computing the PLI and poverty measures in Malaysia is under review.

Trends in poverty rates

Malaysia's poverty rate has declined dramatically over the past three and a half decades (Figure 1.1). About half of Malaysian households lived below the poverty line in 1970, falling to 16.5 per cent in 1990 and to just 5.1 per cent in 2002. The MDG target, to reduce the proportion of the population living below the poverty line by 50 per cent, between 1990 and 2015, was achieved in 1999 when the poverty rate declined to 7.5 per cent. Both the speed and the magnitude of the decline were well ahead of the MDG target.

Figure 1.1 Incidence of Poverty as a Percentage of Total Households, Malaysia, 1970–2002

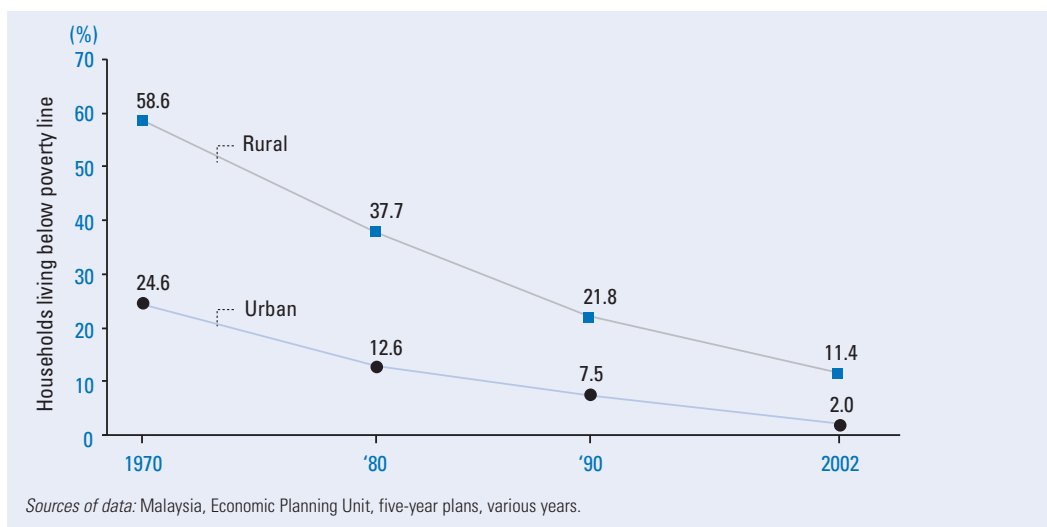


Urban–rural differentials

Malaysia's poverty has been a predominantly rural phenomenon (Figures 1.1 and 1.2). Figure 1.1 gives details of the number of poor households expressed as a percentage of the total number of households. It also shows the contribution to this total of urban and rural households; for example, in 1970, 49.3 per cent of Malaysian households were below the poverty line. The number of poor rural households as a percentage of the total number of households was 44 per cent, the remaining 5.3 per cent being urban.

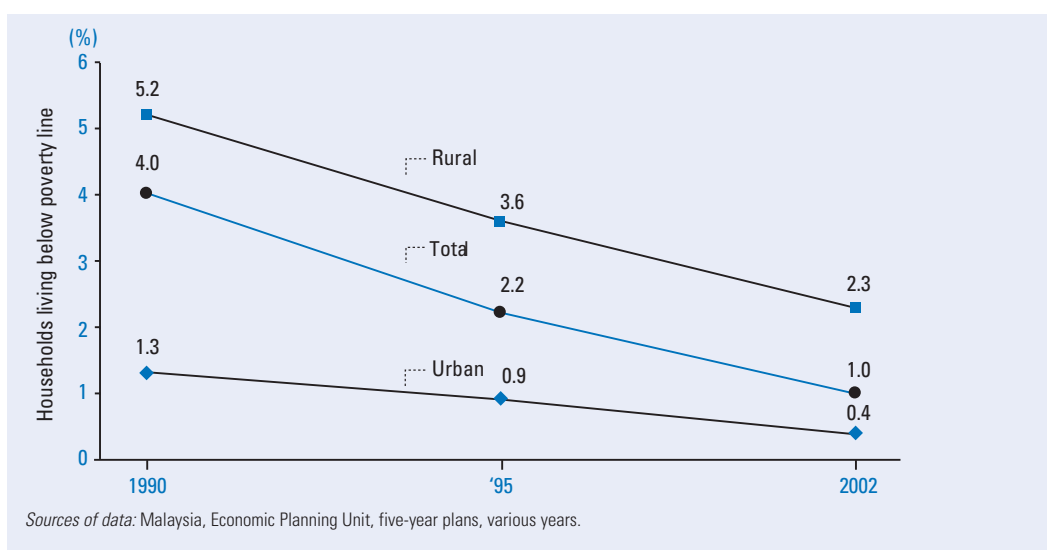
In Figure 1.2, the poverty rates are defined as the number of poor rural (or urban) households expressed as a percentage of the total number of rural (or urban) households. In 1970, poverty rates were markedly higher in rural areas, where the bulk of the population lived. Subsequently, the poverty rate has declined for both rural and urban areas, but more conspicuously in rural areas, such that the urban–rural poverty gap is much reduced in absolute terms, but not in relative terms. The rural poverty rate in 1970 was two-thirds of its 1980 level; it more than halved in the next 10 years and was halved again from 1990 to 2000. The urban poverty rate was halved every 10 years from 1970 to 1990. By 2002, just 2 per cent and 11.4 per cent respectively of urban and rural households were living in poverty. Although the urban poverty rate is very low, rapid urbanization that has occurred over the decades means that the number of the urban poor is now considered significant.

Figure 1.2 Poverty in Rural and Urban Areas as a Percentage of Total Rural/Urban Households, Malaysia, 1970–2002



In the late 1980s, Malaysia began to focus its poverty-eradication programme on the hard-core poor. In 1990, the proportion of hard-core poor households was 3.9 per cent of total households. Total hard-core poor declined to 2.1 per cent in 1995 and 1.0 per cent in 2002 (Figure 1.3). Rapid declines in hard-core poverty have occurred in both rural and urban areas, especially in the mid-1990s. By 2002, the proportion of hard-core poor households had fallen to 0.4 per cent in urban areas and to 2.3 per cent in rural areas.

Figure 1.3 Hard-core Poverty in Rural and Urban Areas as a Percentage of Total Households, Malaysia, 1990–2002

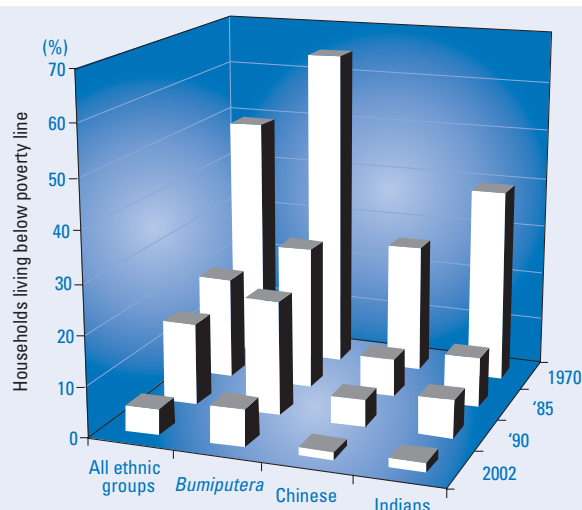


Ethnic disparities

Malaysia's three main ethnic communities are the *Bumiputera* (Malays and other indigenous groups), Chinese, and Indians. Historically, they were separated both geographically and occupationally, reflecting their differing settlement patterns. In 1970, when just 27 per cent of Malaysia's 10.4 million persons were living in urban areas, the *Bumiputera* (55 per cent of the population) were predominantly rural. They were engaged mainly in rice cultivation, fishing, and rubber tapping, far away from the growing urban economy. The Chinese (36 per cent of the population) were a more urban community, dominating trade and commerce, as well as tin mining and commercial agriculture, while some Indians (approximately 10 per cent of the population) had settled in towns and were mainly concentrated in the rubber estates and plantations.

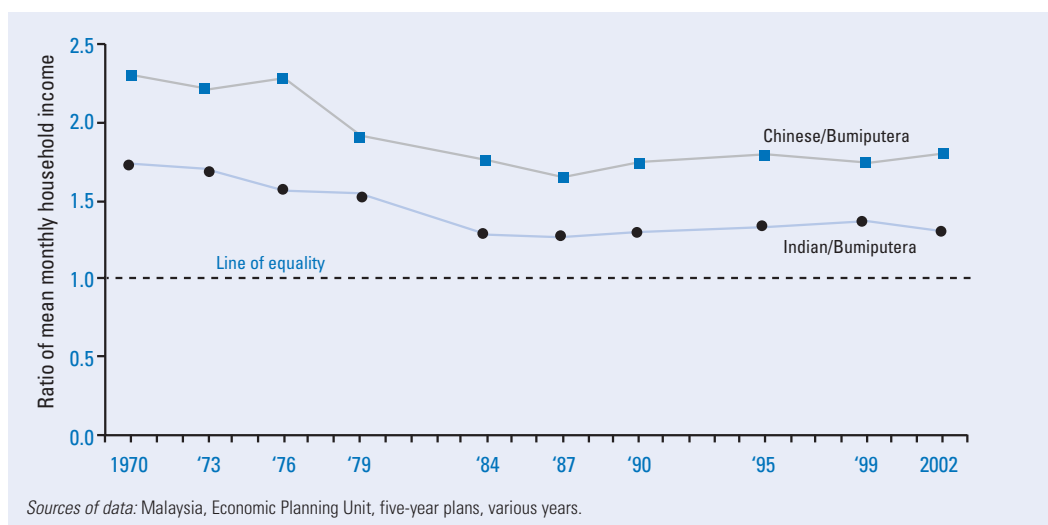
Not unexpectedly, given the above, in 1970, poverty was markedly higher among the *Bumiputera* than the other communities. Approximately two-thirds of *Bumiputera* households were living below the poverty line—poverty rates among Chinese and Indian households were 26.0 per cent and 39.2 per cent respectively (Figure 1.4). As a result of policies adopted by Malaysia, there have been tremendous absolute declines among each of the ethnic groups, such that by 2002 the poverty rates were 7.3 per cent, 1.5 per cent, and 1.9 per cent for the *Bumiputera*, Chinese, and Indians respectively.

Figure 1.4 Poverty Rates by Ethnic Groups, Malaysia, 1970–2002



Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

Ethnic income differentials generally narrowed over the period 1970–2002 as is clear from Figure 1.5. The ratios of mean household income of Chinese and Indians to the mean household income of *Bumiputera* have generally fallen over this period, most notably in the 20 years up to 1990. However, over the last decade of the last century, relative incomes have been broadly constant, and absolute differentials in income have widened (Figure 1.5). Moreover, the Chinese mean household income remains about two times higher than that of the *Bumiputera*.

Figure 1.5 Ethnic Group Disparities in Mean Monthly Income, Malaysia, 1970–2002

Spatial distribution of poverty

The spatial distribution of poverty maps closely to Malaysia's pattern of development. This, in turn, is closely linked to ethnic settlement patterns and industrial structures. Historically, the *Bumiputera* community lived in settlements along the coasts and riverbanks. Chinese and Indian migrants settled along the western coastal plains around the tin mines, agricultural estates, and urban centres. Relatively few of these communities settled in the east coast states, especially in Kelantan and Terengganu, which were sparsely populated in 1970. The big states of East Malaysia, Sabah and Sarawak, were also sparsely populated and undeveloped. At that time, the most populated states were Selangor, Perak, and Johor: only these states had more than one million persons.

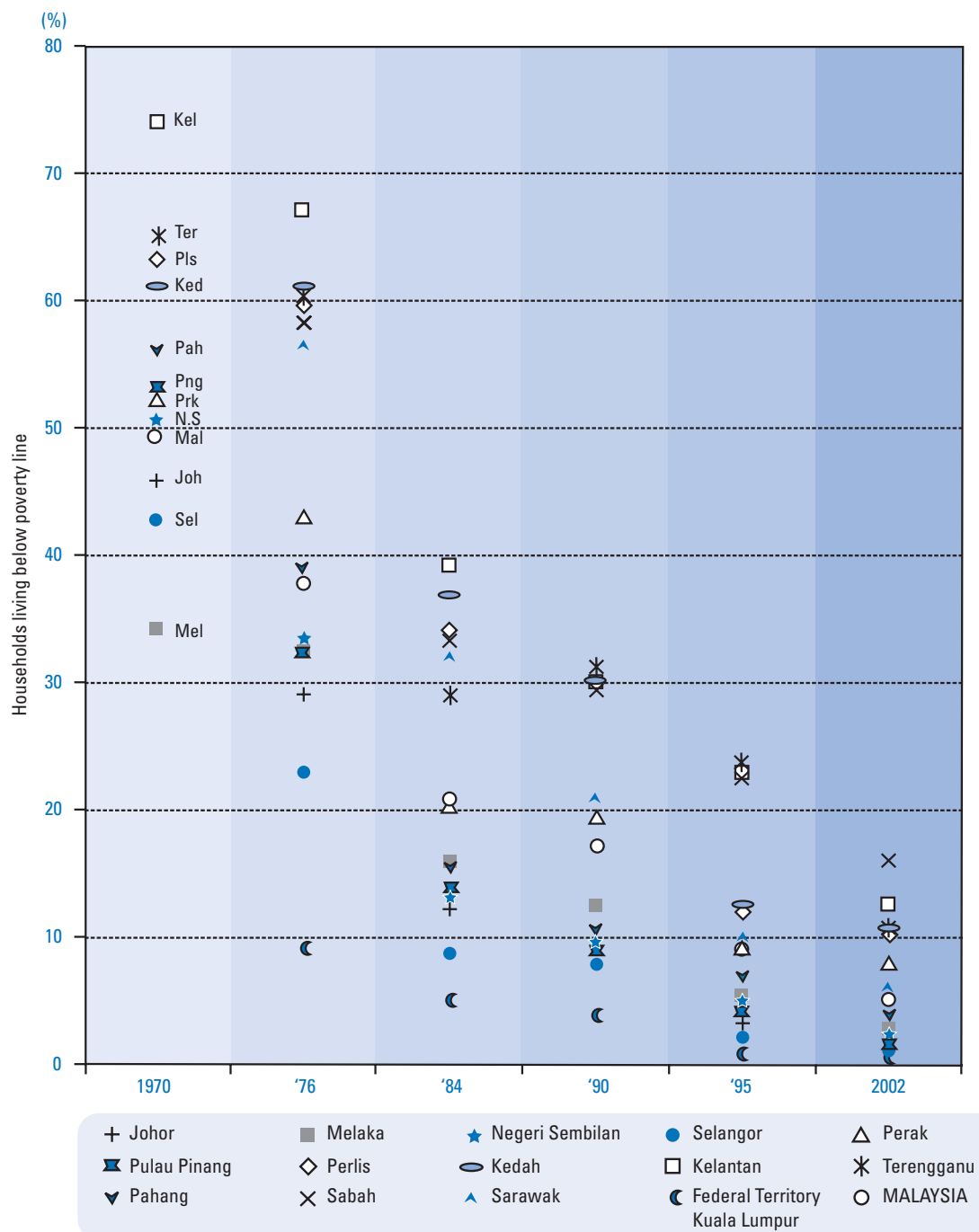
In 1970, there were wide disparities in poverty levels between the states (Figure 1.6). Poverty levels were lowest in the west coast states of Melaka, Selangor, and Johor and highest in Sabah, Kelantan, and Terengganu.

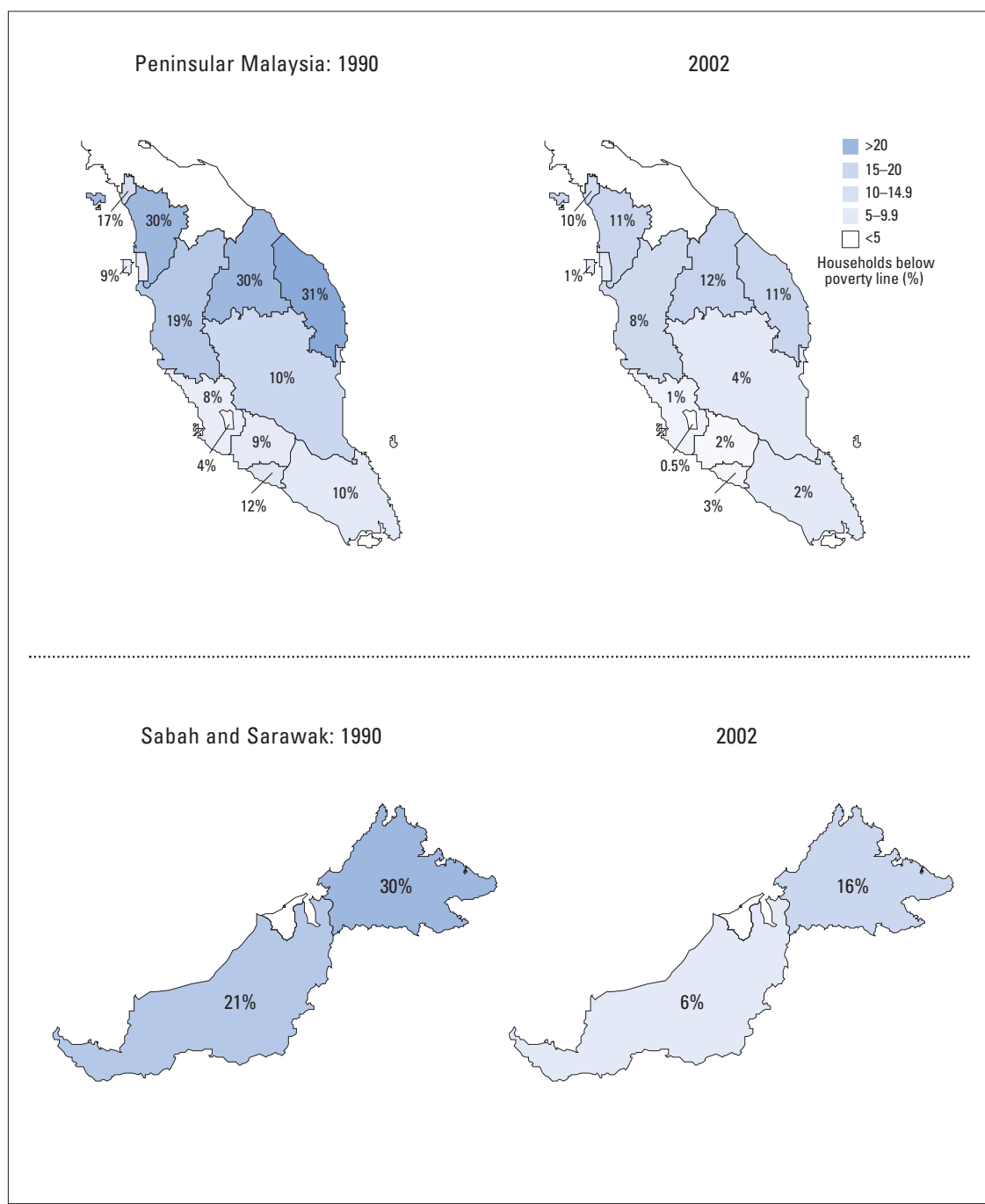
There have been significant reductions in poverty rates for all of Malaysia's 13 states and the Federal Territory of Kuala Lumpur over the three decades since 1970 (Figures 1.6 and 1.7). However, there are still sharp state differentials. Geographical and historical factors continue to matter. The west coast states of Peninsular Malaysia are more developed and have tended to attract more foreign direct investment (FDI). The railway and road system started in these states which are more accessible to the seaports facing the Straits of Malacca, a key maritime highway for international trade in South-East Asia. By contrast, Kelantan and Terengganu, until the discovery of offshore oil in the east coast, were less accessible and have attracted much less FDI.

Currently, Malaysia's poor are mainly concentrated in the states of Kelantan, Terengganu, Kedah, Perlis, and Sabah, and in particular in the rural areas of those states. In 2002, while the national poverty rate was 5.1 per cent, the poverty rates for the poorest

states were as follows: Sabah, 16.0 per cent; Kelantan, 12.4 per cent; Kedah, 10.7 per cent; Terengganu, 10.7 per cent; and Perlis, 10.1 per cent (Map 1.1). Overall, these states have levels of poverty that are two to three times higher than the national level. With the exception of Terengganu, these states also have per capita GDP levels significantly below the national average, and their populations are predominantly *Bumiputera*.

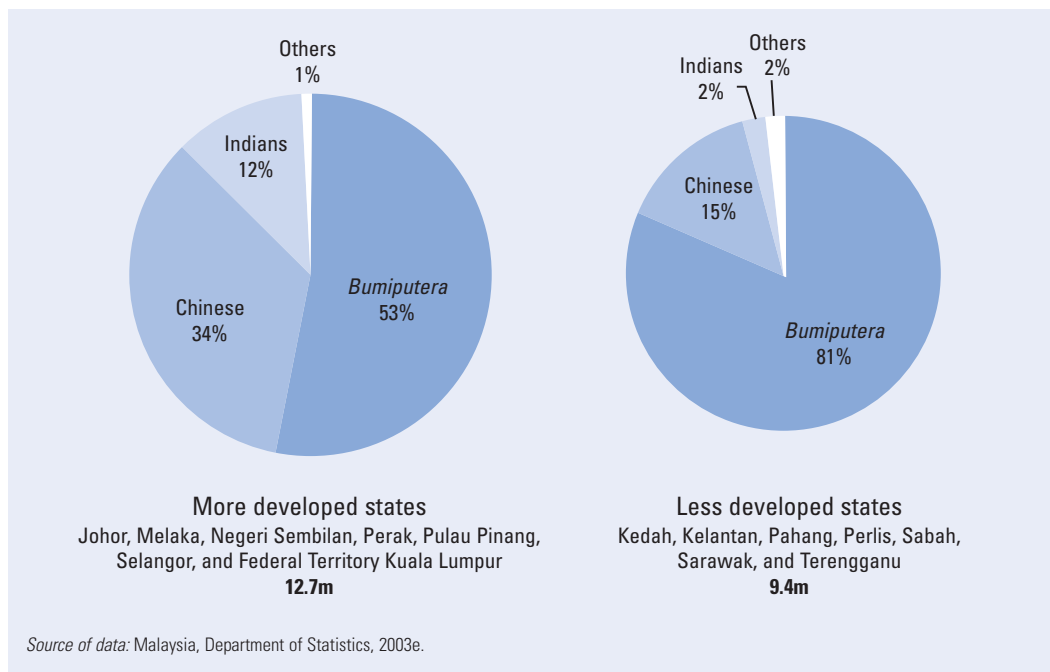
Figure 1.6 Incidence of Poverty by State, Malaysia, 1970–2002



Map 1.1 State Poverty Rates, Malaysia, 1990 and 2002

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

Figure 1.7 Ethnic Distribution in More Developed and Less Developed States, Malaysian Citizens, 2000



Food poverty

The decline in the incidence of poverty in Malaysia is revealed by trends in other direct measures of welfare, especially nutrition. Improvements in the average levels of nutrition are likely to reflect improvements in the nutrition of low-income groups, since nutritional levels do not change substantially at higher income levels. Chronic hunger has never been a serious problem in Malaysia. Nutritional status, a crucial component of most poverty indicators, can be measured in various ways. One is the number of calories consumed by an individual during a given time period. The World Health Organization (WHO) defines this as the consumption of fewer than 1,960 calories a day. Other measures include the intake of protein and nutrients, while child nutrition may be measured by the weight by age and height.

In Malaysia, to improve the nutritional levels of the poor, nutrition programmes were incorporated as an integral component of rural development programmes. Overall, the nutritional level of the population is satisfactory and improving, as seen in the trend of the amount of daily per capita intake of calories and protein (Table 1.2). Government focus is currently on addressing moderate malnutrition among children below 5 years and iron deficiency anaemia among pregnant mothers.

Table 1.2 Daily Per Capita Intake of Calories and Protein, Malaysia, 1970–1999

Daily Per Capita Intake of						
Calories				Protein (grams)		
1970	1980	1989	1999	1970	1980	1987–9
2,518	2,716	2,774	2,969	95	92	88

Sources of data: For 1970–89: Johansen, 1993; and for 1999: International Rice Research Institute, 2002.

Prevalence of underweight children

The weight of children can be a useful indicator of the level of welfare prevailing in a country. It provides a good indication of the level of health services, as well indirectly reflecting income levels, environmental influences on food habits, and knowledge of nutritional and sanitary needs, coupled with factors contributing to a child's physical and mental capacity.

To overcome the nutritional diseases and deficiencies, especially prevalent in the rural areas, the government initiated a long-term poverty-reducing project known as the Applied Food and Nutrition Programme (AFNP) (see Chapter 4). The project is aimed at increasing local production of nutritious foods, improving nutritional education, health, and basic education, and promoting supplementary feeding of pregnant and lactating mothers, toddlers, and school children. The government also initiated the Nutrition Rehabilitation Programme in 1989 as an immediate strategy to rehabilitate undernourished children.

Trends between 1990 and 2001 in under-5 weight-for-age show that not more than 1 per cent are severely underweight (Table 1.3). Further, the proportion with moderate underweight malnutrition has declined markedly from around 25 per cent in the early 1990s to about 12 per cent by 2001.

Table 1.3 Nutritional Status of Children Aged Less Than 5 Years, Malaysia, 1990–2002

Year	Nutritional Status of Children (weight-for-age)	
	Moderate underweight malnourished (%)	Severe underweight malnourished (%)
1990	24.5	0.5
1991	25.6	0.5
1992	25.1	0.5
1993	22.8	0.5
1994	22.0	0.4
1995	20.0	0.6
1996	19.4	0.8
1997	17.7	1.0
1998	17.3	1.1
1999	14.7	1.0
2000	13.0	1.0
2001	11.5	0.9
2002	11.1	0.9

Sources of data: Malaysia, Ministry of Health, 1991 and 2001a.

Growth with equity

The primary objectives of economic policy in Malaysia can be summarized in the phrase ‘growth with equity’—to ensure a growing economy in which all communities benefit. The goal of improving equity in income and wealth distribution has been at the top of Malaysia’s national development agenda throughout the past three and a half decades.

Based on the view that the country’s development path could not be sustained unless all communities share economic growth equitably, the government formulated the New Economic Policy (NEP) in 1970. The NEP, which spanned a period of 20 years from 1971, not only emphasized economic growth but also gave priority to an equitable distribution of income. Growth with equity was the central strategic thrust of the NEP which was incorporated in the Second Malaysia Plan (1971–5). To achieve this goal, two strategies were adopted: (i) reducing, and eventually eradicating, absolute poverty irrespective of race by raising income levels and increasing job opportunities for all Malaysians, and (ii) restructuring society to remove the identification of race with economic functions.

The NEP was succeeded by the National Development Policy (NDP), 1991–2000, which essentially continued the twin objectives of poverty eradication and restructuring of society. Together, these two policies spanned a 30-year period which saw Malaysia emerge from a predominantly agricultural economy into a modern, outward-oriented industrialized nation.

We have seen that the NEP and NDP objectives of reducing the incidence of poverty have been very successful. Changes in the overall pattern of income distribution over the last three decades of the twentieth century are set out in Table 1.4. The income share of the top 20 per cent of households fell from a peak of 55.7 per cent in 1970 to a low of 50 per cent in 1990, rising again to slightly more than 51 per cent in 2002. Over the corresponding years, the income share of the bottom 40 per cent of households was respectively 11 per cent, 14.5 per cent, and 13.5 per cent.

During the period 1970–2002, income inequality in Malaysia also narrowed. The Gini coefficient was 0.52 in 1970; it reached a low of 0.443 in 1999, before rising again to 0.461, in 2002; which was back to the level of the late 1980s (Table 1.4). Thus, over the slow growth years of 1999–2002 poverty fell but income inequality widened—the Gini ratio rising from 0.44 to 0.46.

Table 1.4 Income Shares by Income Group, Malaysia, 1970–2002 (%)

Income group	1970*	1973*	1976	1979	1984	1987	1990	1999	2002
Total									
Top 20%	55.7	58.0	57.9	55.4	53.5	51.5	50.0	50.5	51.3
Middle 40%	32.9	30.6	31.3	32.7	33.8	34.8	35.5	35.5	35.2
Bottom 40%	11.4	11.4	10.8	11.9	12.7	13.7	14.5	14.0	13.5
Urban									
Top 20%	51.0	59.5	56.5	54.0	52.3	50.6	49.6	48.7	49.6
Middle 40%	35.9	29.1	31.4	33.3	34.4	35.2	35.7	36.5	35.7
Bottom 40%	13.1	11.4	12.1	12.7	13.3	14.2	14.7	14.8	14.7
Rural									
Top 20%	55.9	52.6	54.6	52.1	50.1	49.2	47.6	47.9	46.7
Middle 40%	31.8	34.3	34.1	34.9	36.0	36.1	36.8	36.5	37.2
Bottom 40%	12.3	13.1	11.3	13.0	13.9	14.7	15.6	15.6	16.1
Gini Coefficient	0.51	0.53	0.53	0.51	0.48	0.46	0.446	0.443	0.461
Poverty level %	49.3	n/a	42.4	37.4	20.7	19.4	16.5	7.5	5.1

Sources of data: Malaysia, Economic Planning Unit, five-year plans, various years.

Note: * Refers to Peninsular Malaysia.

Figure 1.8 Income Shares by Income Group, Malaysia, 1970–2002 (%)

The Malaysian experience seems to suggest that widening income inequality need not always or necessarily lead to an increase in poverty. The 20-year period 1970–90 was marked by sharp falls in poverty and a reduction in income inequality. But during the difficult years of 1990–2002, inequality increased slightly while the incidence of absolute poverty continued to fall. This is clearly evident in Figure 1.8, where the increasing income share of the bottom 40 per cent of households increased markedly up to 1990, but has been broadly constant since.

Table 1.4 reports the trends in relative income shares over the post-1970 period. Table 1.5 compares mean incomes amongst different groups over the period 1990–9. Overall, income growth was rather similar for all groups. However, the trends for the urban and rural areas are different. Income gains were significantly larger for all income groups in the urban areas, compared to the rural. The net result was that the urban–rural income differential rose from 68 per cent in 1990 to 111 per cent in 2002.

Table 1.5 Mean Monthly Gross Household Income by Income Group, Malaysia, 1990 and 2002

Area and income group	In current prices		In constant prices (2000=100)		Average annual real growth rates
	1990	2002	1990	2002	1990–2002
Malaysia	1,169	3,011	1,656	2,918	4.7
Top 20%	2,925	7,745	4,143	7,505	5.0
Middle 40%	1,037	2,660	1,469	2,578	4.7
Bottom 40%	424	1,019	601	987	4.1
Urban	1,606	3,652	2,275	3,539	3.7
Top 20%	3,981	9,085	5,639	8,803	3.7
Middle 40%	1,435	3,265	2,033	3,164	3.7
Bottom 40%	590	1,344	836	1,302	3.7
Rural	957	1,729	1,356	1,675	1.8
Top 20%	2,277	4,057	3,225	3,931	1.6
Middle 40%	882	1,612	1,249	1,562	1.9
Bottom 40%	373	699	528	677	2.1
Urban/Rural ratio in mean income					
Urban/Rural	1.68	2.11	1.68	2.11	
Top 20%	1.75	2.24	1.75	2.24	
Middle 40%	1.63	2.03	1.63	2.03	
Bottom 40%	1.58	1.92	1.58	1.92	

Sources of data: Malaysia, Economic Planning Unit, five-year plans, 1991b and 2001b.

Economic growth and poverty

Reductions in poverty level can be attributed to two reasons. Firstly, to a rise in **mean incomes** will always reduce the absolute poverty rate if the distribution of relative incomes is unchanged. If economic growth raises the incomes of all households—that is, shifts the entire income distribution to the right—then the proportion of households below an absolute poverty line will inevitably fall. Secondly, poverty rates will fall if there is a favourable change in relative household income distribution, even if the mean income level is unchanged. Since there is growing international evidence that economic growth

has little discernible effect on relative income distribution, economic growth can confidently be expected to reduce poverty. But public policy can also work to strengthen the favourable effects of economic growth. In the Malaysian case, it is clear that both factors (economic growth and public policy) made important contributions to the impressive reduction in the incidence of poverty. The Malaysian economy experienced rapid economic growth over the last quarter of the twentieth century. Between 1971 and 2000, real GDP per capita grew at an impressive 4.2 per cent per annum, on average, as a result of effective public policy which played a direct and key role in alleviating poverty over the same period.

International experience suggests that, as a simple rule of thumb, a 1 per cent increase in mean income will reduce the incidence of poverty by 2 per cent (World Bank, 2001). This is often referred to as the 'growth elasticity' of poverty reduction. The Malaysian case provides a good example. Over the period 1970–2000, the average percentage reduction in poverty was around 7.5 per cent per year; over the same period, real GDP per capita grew on average at a rate of 4.2 per cent, giving a 'growth elasticity' of 1.8. This indicates that for every 1 per cent growth in GDP per capita, poverty is reduced by 1.8 per cent. Over the post-1990 period, the elasticity was even higher at 2.7.

However, these averages mask substantial business-cycle variations in Malaysia's economic growth. Malaysia experienced three major recessions during the last quarter of the twentieth century: in 1975, real GDP per capita fell by 1.5 per cent due to the world oil crisis (real GDP rose modestly by 0.8 per cent that year); in 1985–6, due to weak external demand, real per capita GDP fell on average by 2.8 per cent per year; and in 1998, following the Asian financial crisis of 1997, real GDP fell by over 7 per cent and real GDP per capita by nearly 10 per cent. This last recession was particularly severe and it threatened to destroy the efforts of more than two decades and reverse the significant progress achieved in reducing poverty. These three periods of negative growth inevitably, but temporarily, slowed progress in poverty alleviation. The 1998 recession had a particularly pronounced impact on poverty: the poverty rate rose temporarily to 7 per cent from 6.1 per cent a year earlier. The impact of the crisis would have been greater if not cushioned by the presence of a migrant workforce that bore the brunt of the slowdown in economic activities, particularly in the construction sector.

Open economies like Malaysia cannot avoid the impact of external shocks. One role for public policy is the macroeconomic management of crises arising from such shocks and, in the Malaysian case, due to policy interventions, the setbacks were relatively short-lived in each case: real GDP per capita grew at 8.6 per cent in 1976, by 6.4 per cent in 1988, and by 5.5 per cent in the year 2000. The post-1998 recovery was particularly problematic, given the severity of the recession. After initially adopting tight monetary and fiscal policies, the government acted swiftly on the advice of the National Economic Action Council (NEAC) in mid-1998 by relaxing fiscal and monetary policies, imposing capital controls, and pegging the Ringgit at RM3.80 to the US dollar. Malaysia was alone among the Asian countries affected by the crisis in adopting these policies. The measures taken were largely successful, as evidenced by the country's relatively rapid return to favourable growth.

Despite these temporary setbacks, Malaysia is a good example of the 'growth elasticity' concept in practice. Economic growth was undoubtedly the linchpin of Malaysia's successful poverty-eradication programme. But, in addition to ensuring a stable macroeconomic environment, public policy had additional vital roles to play.

Public policy and poverty

Economic growth on its own may not be sufficient to reduce poverty to socially acceptable levels. Growth that fails to deliver employment opportunities to poorer individuals will obviously have little impact on the incidence of poverty. In this section, the role of public policy in achieving poverty reduction will be discussed—a role that can be broadly covered under three objectives: firstly, the need to promote poverty-alleviating growth, sometimes referred to as a 'pro-poor growth' strategy; secondly, the need to provide the social and physical infrastructure required for a growing economy; and finally, the need to execute public policy that directly assists specific target groups amongst whom poverty incidence is highest.

Malaysia's emerging economy and pragmatic development plans

Malaysia is a resource-rich country and these resources have provided the foundation for much of the economy's growth. Moreover, successive governments have provided an appropriate legal framework and stable democratic political setting for the economy to take full advantage of its rich natural and human resources. Medium-term economic planning in Malaysia has been effected through a series of five-year plans, and the country's relatively high-quality public administration has allowed for effective implementation of its development policies and programmes. Many of the key non-economic preconditions for growth often identified in cross-country studies are present in Malaysia.

At the start of the 1970s, Malaysia's economy was agriculture-based and heavily dependent on a few major primary products that were susceptible to volatility in world commodity prices. Government policy aimed to move the economy away from overdependence on a narrow range of sectors and it began to embark on rapid industrialization and diversification programmes. These included several phases of industrialization, from import substitution to export-led growth and the encouragement of foreign direct investment. They also included employment-creation programmes to combat high levels of unemployment, particularly of youths, caused by rapid growth of the labour force.

Despite the impact of the Asian financial crisis, over the period 1990–2000, real GDP grew at an average rate of 7 per cent per annum. In 2000, real per capita income had reached RM13,359, increasing by two-thirds from its level in 1990 (RM8,921). This overall picture masks important structural changes. Manufacturing (10.5 per cent per annum)

registered the highest growth rate followed by services. By 2000, manufacturing's share of GDP increased to about one-third (33.4 per cent) from about one-quarter (24.6 per cent) and the share of agriculture fell to 8.7 per cent in 2000, compared with 16.3 per cent in 1990. The share of services had become the largest by 2000 (52.7 per cent), compared with ten years earlier (46.8 per cent).

Openness and growth

Malaysia is an open economy and total external trade accounts for more than 200 per cent of its GDP. External factors have a large impact on trade and, through trade, on growth. In 1970, growth was mainly dependent on primary agricultural commodities, especially rubber. Year to year volatility in the price of rubber and palm oil eroded the incomes of smallholders. Between 1971 and 1985, a combination of export-promotion and import-substitution policies formed the trade strategy in Malaysia.

As a result of Malaysia's export-oriented strategy, manufactured exports now account for about 80 per cent of total exports compared with 12 per cent in 1970. The more outward-oriented phases of trade helped to keep labour markets tight and to improve income distribution. Nevertheless, while openness ensured that Malaysia remained keenly aware of its global competitiveness, with trade contributing significantly to growth, it also made the country vulnerable to external developments. In particular, global economic slowdowns in the industrialized countries, where Malaysia's major markets are located, have led to slowdowns in the economy.

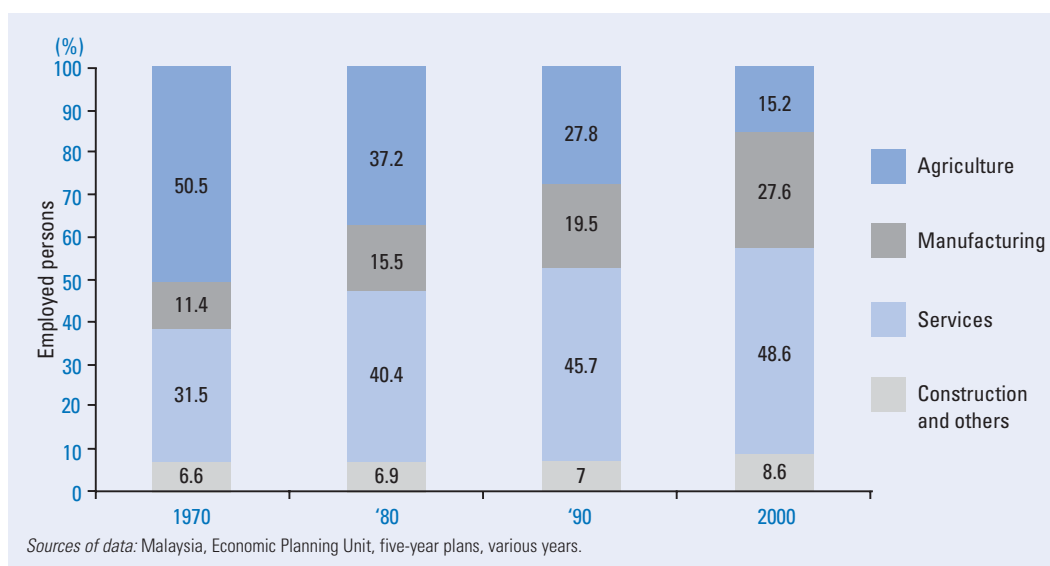
Employment and growth

Malaysia's economic growth has created significant employment opportunities—a major feature of 'pro-poor growth'. In the early 1970s, Malaysia was confronted with high levels of unemployment, especially of urban youths. The population and labour force were growing rapidly, and there were large inflows to the cities from rural areas, where there was a lack of employment opportunities outside of agriculture. Rural development and labour-intensive industrialization strategies were intensified and continued up to the late 1980s, particularly with the growth of the electronics, electrical, and textile-manufacturing industries.

Growth, employment creation, and poverty reduction were interrelated. The Malaysian labour-market policies strove to ensure a more ethnically balanced pattern of employment. Buoyant economic growth facilitated these policies. Over the period 1970–90, for example, *Bumiputera* employment in agriculture fell by more than 75,000, but the displaced workers were absorbed into 1.6 million new jobs in the non-agricultural sectors. In the manufacturing sector, the employment share of *Bumiputera* increased from about 29 per cent (84,400) in 1970 to almost half in 1990 (605,700). Employment absorption of *Bumiputera* into the more productive modern sectors has since continued: some 877,000 new jobs were created from 2001 to 2003 out of which 271,000 were generated by manufacturing and 554,000 by services. Labour and skill shortages became more apparent in the late 1980s. Increasingly, immigrant labour has made inroads into agriculture, household services, and construction.

With economic diversification and major shifts in the sectoral contributions to GDP, Malaysia's employment structure has changed markedly since 1970 (Figure 1.9). By 2000, the share of employment in agriculture, which had been dominant in 1970, was lower than that in the modern sectors of manufacturing and services.

Figure 1.9 Employment by Sector, Malaysia, 1970–2000



Rural development

Agriculture and rural development were given strong emphasis in the early years of development in Malaysia. The land development scheme led by the Federal Land Development Authority (FELDA) to resettle the landless operated under the Rural Economic Development (RED) book programme which included establishing development institutions in the First and Second Malaysia Plans to support the agricultural sector. For example, in 1969, the Federal Land Consolidation and Rehabilitation Authority (FELCRA) was established to provide the technical management inputs of the overall operation of the land resettlement scheme. Other established development institutions include the Malaysian Agricultural Research and Development Institute (MARDI) in 1969, *Bank Pertanian Malaysia* (1969), and the Malaysian Rubber Development Corporation (MARDEC) in 1966. The expansion and support of the rubber industry was overseen by the Rubber Industry Smallholders Development Authority (RISDA), established in 1973 while the modernization of the fishery sector brought about the existence of the Fishery Development Authority of Malaysia or *Lembaga Kemajuan Ikan Malaysia* (LKIM) in 1971. These programmes all played a pivotal role in reducing poverty in Malaysia.

Social and physical infrastructure

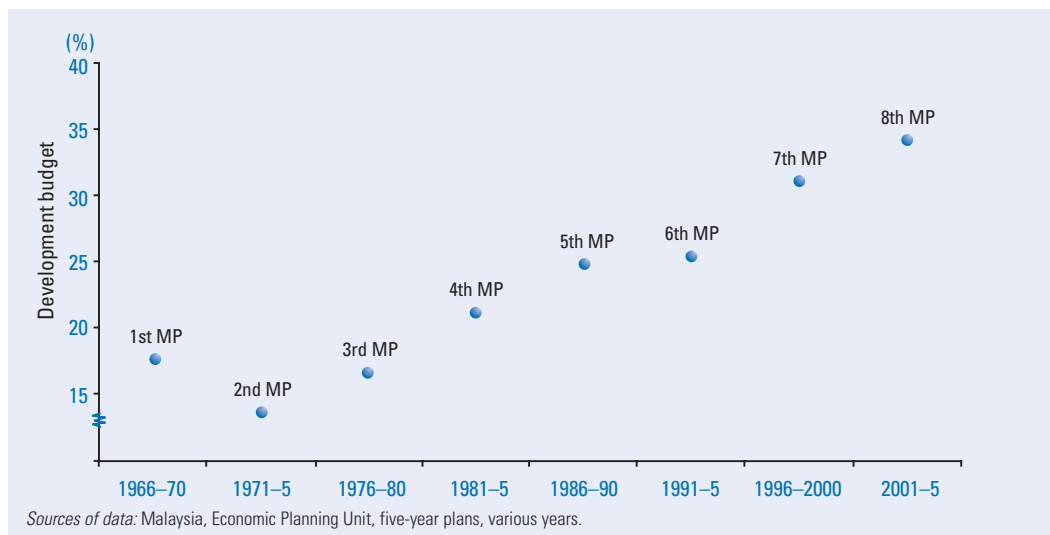
Over the last quarter of the twentieth century, the government of Malaysia has overseen a period of substantial economic progress, the benefits of which were sufficiently widely distributed to have a significant impact on the incidence of poverty. In addition, the government provided the social and physical infrastructure investment required by a growing economy—most notably in health and education as well as physical infrastructure. For example, the development of road systems had provided rural communities with better access to facilities and opportunities to engage in modern economic activities.

Substantial investment in health and education had significantly contributed to economic growth and welfare. Of the overall national development budget (which is about 20 per cent of the total annual government budget), more than 20 per cent of expenditure has consistently been allocated by the government to social programmes, such as education, health, and low-cost housing, as poverty-reducing measures (Figure 1.10). Improving the health and education of the population has been a key strategy of the country's long-term plan to eradicate poverty. For instance, free schooling is provided at the primary and secondary levels. During the early stages of the NEP, vocational education and on-the-job training were introduced. Schemes for the poor and low-income pupils were introduced in the Third Malaysia Plan to coincide with the education expansion plans. Students from poor and low-income families were provided with textbooks on loan and placed on health and nutritional programmes at schools.

With the introduction of the NEP, education and training were accorded a higher level of priority and participation from the private sector was strongly encouraged with the promulgation of the Private Higher Educational Institutions Act 1996. Courses in science and technology and information technology were given more emphasis. The average years of schooling for Malaysians increased from 3.7 years in 1970 to 6.0 years in 1990, with a marginal increase to 6.8 years in 2000 (Barro and Lee, 2001). Public policy thus ensured that a well-educated and well-trained workforce was in place to take full advantage of the expanding opportunities of the Malaysian economy.

Malaysia's rapid economic growth has both benefited from and contributed to this strategy. Social sector expenditures have consistently been a high and rising proportion of the federal development budget (Figure 1.10). In addition, a sizeable proportion of the development budget is used for economic programmes, such as agricultural and land development and water resource management, which contribute to poverty reduction. Compared with many developing countries, Malaysia has not been severely constrained by resources to finance its developmental programmes. Economic growth has supported revenue growth. The deficits of the Federal Government have not been excessive and have remained within manageable bounds. Foreign borrowing has generally been relatively low, so servicing overseas debt has not been a major drain on foreign exchange reserves.

Figure 1.10 Public Development Expenditure on Social Programmes in the Malaysia Five-Year Plans, 1966–2005



Poverty-reduction programmes

‘Pro-poor growth’ programmes in Malaysia have helped to reduce the incidence of poverty substantially over the last 30 years. Table 1.6 provides an overview of the major instruments (policies, programmes, and institutions) used to guide national efforts to eradicate poverty. Poverty eradication and income restructuring of society (growth with equity) have long been integral components of these instruments, reflecting the urgency the government has given to improving the well-being of the people.

Society restructuring

To restructure society and achieve an equitable distribution of income, the government carried out numerous programmes aimed specifically at helping the rural poor. Various affirmative actions for the *Bumiputera* community were implemented to increase their participation in education, housing, and community sectors. In the government’s efforts to nurture a Bumiputera Commercial and Industrial Community (BCIC), specific programmes were carried out to promote Malay entrepreneurs and their participation in the commercial and industrial sectors. Restructuring of employment played a vital part in raising the income of the poor; restructuring the ownership of wealth through share capital was an important means of raising the income from capital. An equity ownership target of at least 30 per cent for *Bumiputera* by 1990 was incorporated in the NEP. However, this target was not reached. *Bumiputera* ownership was only 18.9 per cent in 2000 and the target remains the focus of restructuring efforts under the Third Outline Perspective Plan (2001–10).

Table 1.6 Overview of Anti-Poverty Developments, Malaysia, 1960–2010

1960–70	1971–90	1991–2000	2001–10
Pre-NEP	New Economic Policy (NEP) OPP1	National Development Policy (NDP) OPP2	National Vision Policy (NVP) OPP3
First Malaysia Plan (1966–70)	Second Malaysia Plan (1971–5) Third Malaysia Plan (1976–80) Fourth Malaysia Plan (1981–5) Fifth Malaysia Plan (1986–90)	Sixth Malaysia Plan (1991–5) Seventh Malaysia Plan (1996–2000)	Eighth Malaysia Plan (2001–5)
Economic Objectives and Strategies Related to Poverty			
Diversification of the economy from primary products to manufacturing and nation building through education. Increasing <i>per capita</i> income and consumption of the rural population. Providing adequate infrastructure to the poor.	Two-prong approach of • Poverty eradication • Society restructuring	Eradication of hard-core poverty and reducing relative poverty. Focus on the rapid development of an active BCIC. Boosting productivity via enhanced human resource development strategies and through the promotion of science and technology to accelerate the process of eradicating poverty.	Raising the quality of development and generating high sustainable growth. National unity is the overriding objective. Promoting economic growth alongside continued poverty eradication and society restructuring.
Major Poverty Eradication Programmes			
Land consolidation and rehabilitation. • FELDA (1956) • MARA (1966) • FELCRA (1966) • MARDEC (1966) • JENGKA • KETENGAH	Continued focus on the agriculture and rural development. Creation of • MADA (1970) • LKIM (1971) • RISDA (1973) to modernize the rural and agricultural sector. IADP programmes launched (1983). AIM established (1987) Micro-credit schemes (1986) Creation of a BCIC. Settlement schemes for the <i>Orang Asli</i> . Text book on loan schemes Scholarship for low income families.	Development programme for the hard-core poor (PPRT). Continued focus on programmes launched in the previous long term plans (i.e. land consolidation and rehabilitation, commercialization of farms and expansion of education and training). Participation of the private sector in poverty alleviation programmes.	Target groups better identified. Cabinet committee on urban poverty created (2001). Launching of special HIS on <i>Bumiputera</i> minorities in Sabah and Sarawak (2002). Targeting urban poverty - mapping urban poverty to allow for better monitoring of poverty programmes (2003). Continued focus on enhancing the skills and education of the vulnerable groups.

Extending access to education and training

The provision of education and training was extended to targeted groups, such as the *Orang Asli*, the Malaysian aborigines. Around October 2003, a special education programme was implemented to assist *Orang Asli* students in primary schools. Under this programme, school uniforms, fees, books, writing materials, and transportation to school were provided. Qualified *Orang Asli* individuals were encouraged to join the teaching profession, as a strategy to increase the attendance of the *Orang Asli* students.

Rural and agricultural sector

Poverty-eradication programmes have focused mostly on the rural and agricultural sector. They have been supported by industrialization programmes to absorb surplus labour. These programmes have increasingly included pockets of poverty among the fishing community and the *Orang Asli*. In the urban areas, there are programmes that address the problems of poor squatters. In recent years, greater focus has been put on the hard-core poor. The various rural and agricultural programmes that have been carried out since 1950 are detailed below.

Land settlement. The government's land settlement scheme was aimed at resettling the landless and those with uneconomic holdings in new land development schemes. Settlers were given rights to the land they worked on which then became an intergenerational asset, thus giving them a strong incentive to make long-term capital investment and increase productivity. In addition, these land settlement schemes were provided with basic infrastructure such as piped water, electricity, and roads that linked the land schemes to the nearest town. The settlers were also provided with single unit houses as exemplified by the FELDA schemes (Box 1.2).

Box 1.2 THE FEDERAL LAND DEVELOPMENT AUTHORITY (FELDA)

The Federal Land Development Authority (FELDA) was established in 1956 as part of the overall government strategy to redistribute income and reduce the poverty of the rural poor. In undertaking land development and settlement of landless farmers and their families, FELDA transformed a landless peasantry from subsistence agriculture to a community of land owning modern cash crop producers.

The settlement process in the FELDA schemes followed four stages:

- Orientation and familiarization
- Training and group dynamics of the settlers
- Refining the skills of the settlers in farm management
- Participation in the management of the schemes.

The process begins with land being alienated to FELDA by the respective state governments. After experienced contractors clear the land, basic infrastructure (roads, clinics, schools, and settlers' houses) is constructed. Settlers move into the scheme three years after the land has been cleared, and receive a subsistence allowance until the rubber and oil palm trees on their plots of land, normally 4 hectares, mature and begin to produce cash crops for export. The choice of crops to grow depends largely on the commodity outlook, as well as the soil suitability factor; and based on these, two-thirds of the settlers were in oil palm schemes.

Settlers work in teams to maintain and harvest the product from a group of holdings. The settler's earnings are a function of both the team's efforts and the productivity of their own plot. Settlers are obligated to use a portion of their earnings to repay the loan covering the cost of establishing

the project, normally over a 15-year period. Once repayment has been completed, the settlers would receive their individual titles to land in the schemes. The scheme is therefore a long-term loan provided to the landless rural poor to enable them to acquire land.

By 1996, a total of 114,338 settlers and their families were resettled in 309 FELDA schemes throughout the country. The income of FELDA settlers has seen significant improvements although incomes fluctuated with international prices of the raw commodities. Between 1984 and 1990, the average income per settler family planting rubber was RM522 per month, net of all loan deductions. For those planting oil palm, monthly net incomes averaged RM685.

FELDA improved the income and standard of living of settlers and created viable communities, where settlers obtained titles to their land. It also took control and planned for intergenerational mobility. However, FELDA faces a number of challenges moving forward. One of the primary challenges is building capacity within the settler community to manage their own lots, given the primary focus on achieving basic socio-economic targets in the preceding years has necessitated the centralization of management powers of such schemes.

To ensure continued sustainability of FELDA schemes the development of Small and Medium Enterprises (SMEs) within the Schemes will be promoted. These SMEs will focus on capacity building among settlers, particularly in management skills, and imbue settlers with entrepreneurial skills.

Increasing productivity. To increase agricultural productivity, the government undertook *in situ* development of existing agricultural land through rehabilitation and consolidation (the FELCRA schemes), replacing old commercial crops with new higher-yielding clones and the adoption of better planting techniques. A sizeable amount of financial resources was channelled towards R&D in agriculture, especially for the development of new high-

yielding rubber clones. These high-yielding clones raised the productivity of the rubber smallholders significantly, thus increasing their income. Financial support was provided for the replanting of rubber with the new high-yielding clones. At the same time, the double-cropping of paddy farms was made possible by investments in the provision of water (for example, the *Muda* and *Kemubu* irrigation schemes).

Integrated agricultural development programme (IADP). IADPs are essentially *in situ* development programmes that aim at improving farm productivity through the rehabilitation of old irrigation schemes, drainage systems, as well as the provision of agricultural inputs and other support services. A common feature of the IADPs is the formation of Area Farmers' Associations under the guidance and direction of the Farmers' Organization Authority (FOA), another statutory agency created within the ambit of the Ministry of Agriculture (currently known as the Ministry of Agriculture and Agro-Based Industry). Under the IADPs, agricultural and rural development programmes were integrated with downstream processing of farm products, while village industries and rural entrepreneurship were encouraged to generate additional sources of income.

Focusing on technologies that raise agricultural productivity. This strategy includes introducing double-cropping or off-season cropping for paddy, intercropping, and mixed farming on the same plots of land to supplement the income derived from main crops, in particular through the *Muda* and *Kemubu* irrigation schemes.

Providing training and education. Training and education are provided on topics pertaining to farming, work attitudes, and values to motivate participants to become more productive farmers. These are undertaken by the Extension Services of the Department of Agriculture in all the states of Malaysia. In addition, the *Majlis Amanah Rakyat* (MARA or Council for Indigenous Peoples) provides industrial and vocational training for the rural labour force, coupled with credit facilities and related support, to enable them to be employed in non-farm occupations or to start their own businesses in rural areas and urban centres.

Improving farmers' access to markets. To improve farmers' income, the government, through the Federal Agricultural Marketing Authority (FAMA), established farmers' markets in urban centres so that farm produce could be sold directly and fetch better prices.

Commitment in identifying target groups

In order to address the needs of the poor living in rural and urban areas, the government identified separate poverty target groups classified according to the industry and occupation of the head of the household. The rural poverty groups were rubber smallholders, paddy farmers, coconut smallholders, the fishing community, and estate workers. The urban poverty groups were identified according to sectors: mining; manufacturing; construction; transport and utilities; and trade and services. Many of the poor were engaged in more than one agricultural activity, for example, some farmers cultivated rubber as well as coconut, while some of the fishing community also cultivated paddy and rubber. Estimates of the incidence of poverty among the target groups help the government focus various programmes and enable better monitoring of the programmes' impact.

A special Household Income Survey (HIS) to gather information on household income of *Bumiputera* minorities in Sabah and Sarawak was conducted in 2002. To further identify

and more effectively target the urban poor, the government has established a database to build an 'urban poverty map'. In 2003, a pilot survey was conducted in Johor to build one such urban poverty map.

Rapid economic growth has accelerated the development of urban areas. Rural-urban migration and the growth of the existing urban population have increased the population of the urban areas, especially the Malay component. The urban poverty rate, therefore, grew with population growth, but in recent years the rate of urban poverty has fallen sharply. Regional development programmes with the aim of dispersing the growth to new growth centres have somewhat eased the pressure on urban areas. The more direct programmes dealt with the problems of the squatter settlements in the urban areas. Not all squatters, however, are poor. Resettling the squatters has been the key strategy for alleviating urban poverty. Squatters are resettled, temporarily, in flats and the squatter areas are usually used to construct low-cost houses or apartments. The completed accommodation is then offered to the squatter families, either for rent or for sale.

Development programme for the hard-core poor (PPRT)

During the NDP period (1991–2000), the Development Programme for the Hard-core Poor, or *Program Pembangunan Rakyat Termiskin* (PPRT), was instituted to assist the hard-core poor. The programme established a register on the profile of hard-core poor households and provided for a package of projects tailored to meet their specific needs. This included increasing their employability and income, improving their housing, providing food supplements for their children, and giving them educational assistance. Direct assistance was given to the hard-core poor who are disabled and aged. In addition, the hard-core poor were provided with interest-free loans to purchase shares in a unit trust scheme and thus earn dividends. At the state level, each village committee identifies the hard-core poor. The committee then proposes the form of assistance suitable for the identified target subjects. A district-level committee then decides on the recipients and the type of assistance.

Under the National Vision Policy or NVP (2001–10), the PPRT was consolidated with other poverty programmes under the *Skim Pembangunan Kesejahteraan Rakyat* (SPKR). The SPKR covers economic, social, and physical projects aimed at eradicating poverty and hard-core poverty. Apart from generating income, the SPKR also emphasizes building self-esteem and increasing self-reliance among the poor.

Micro-credit schemes

Since 1987, *Amanah Ikhtiar Malaysia* (AIM), a non-governmental organisation, provided micro-credit financing to about 69,000 poor families with interest-free loans of RM300 million provided by the Malaysian government. Modelled on the Bangladesh Grameen Bank loan scheme, this credit scheme targeted the poor who did not qualify for conventional types of loans because of their inability to provide collaterals. The majority of the beneficiaries of the AIM programmes have been women. The Malaysian government has also provided micro-credit through *Bank Pertanian Malaysia*.

Insights gained

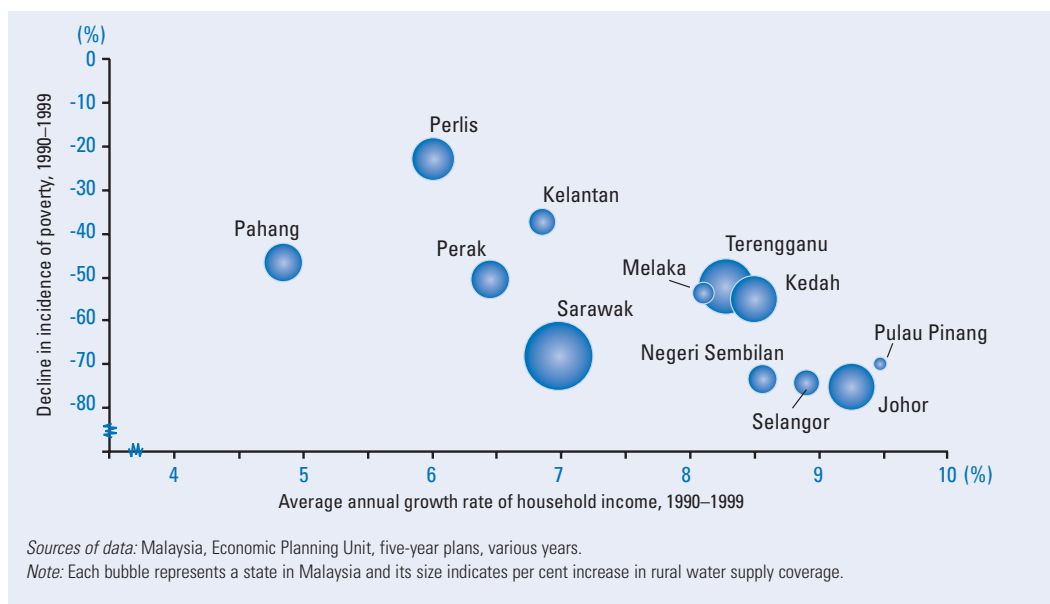
The Malaysian experience suggests that poverty can be reduced by increasing the productivity of the poor, by targeted expansion of education and health facilities, especially at the primary level, and by expansion of their access to capital. Expanding labour-intensive manufacturing exports, promoting rural development, increasing agricultural production and providing income-generating opportunities among the poor were both growth-expanding and poverty-reducing strategies.

Thus, Malaysia employed three strategic poverty-reducing approaches. First, the push for agricultural and rural development was implemented to raise the income of poor farmers and agricultural workers by raising their productivity. Secondly, labour-intensive export-led industrialization was carried out to absorb the poor workers from the rural and urban areas. Thirdly, public investment was channelled into education, health, and basic infrastructure, especially in the rural areas, to raise the standard of living of the poor.

Programmes to increase household income, along with other pro-poor social sector investments, had a strong impact on reducing poverty. Figure 1.11 displays the relationship between the growth in household income and the incidence of poverty. The larger the growth in household income, the larger the decline in poverty. For example, the four states, Negeri Sembilan, Selangor, Johor and Pulau Pinang, with average annual growth rates of household income of more than 8.5 per cent, registered declines in the incidence of poverty of more than 70 per cent during the period 1990–9. In contrast, two states, Pahang and Perlis, which registered 6 per cent or less in household income growth, achieved a less than 50 per cent decline in the incidence of poverty.

Figure 1.11 also shows the relationship between pro-poor social sector investments using the percentage increase in rural water supply coverage of each state as a proxy measure. The increase in rural water supply coverage is represented by the size of each bubble in Figure 1.11. A similar, albeit weaker, negative relation between the increase in rural water supply coverage and the decline in poverty can also be observed. The larger bubbles, indicating a bigger increase in rural water coverage, show a tendency to be in the lower portion of Figure 1.11, indicating that these states have larger declines in the incidence of poverty. For example, for states with 6–7 per cent increases in household income, Sarawak, with the largest increase in rural water supply, showed the largest decline in poverty. However, increases in rural water supply do not provide a clear indication of growth in pro-poor social sector investments for the more urbanized states and this contributes to the weaker negative relationship observed.

Figure 1.11 Relationship Between the Rate of Decline in Poverty and the Rate of Growth in Household Income, Malaysia, 1990–1999



Political will and policy consistency

The Malaysian government has been consistent in defining and prioritizing developmental issues, and continuity has been reinforced by the maintenance of long-standing institutional arrangements concerning national development. Poverty-alleviation programmes have been featured prominently in the national budget.

Investing early in basic education and health

Investment in education and health fosters a productive labour force that can participate effectively in the economy. Interventions required for education and health are well known, and major progress can be made when resources are committed to their improvements.

Increasing productivity in the agriculture and rural sector

Increasing the productivity of the agriculture and rural sector, by introducing better technology and methods as well as improving rural infrastructure, helps to lift the rural poor out of the poverty trap. In addition, by providing security in landholdings, farmers' rights are protected and they are encouraged to invest in land improvements for long-term productivity. Training, access to credit, and improved marketing enable farmers to participate in the economy.

Improving basic infrastructure.

The provision of basic infrastructure (such as roads, water and electricity supply, and ports) allows for a reasonable standard of living and productive economic activity. The linkage of rural areas to urban areas via roads and public transport helps to overcome geographic barriers, reduces the role of the middlemen, and enables farmers to participate directly in markets.

Developing an effective industrial development policy

An effective industrial development policy not only increases employment and income but raises productivity in the long run. Macroeconomic and trade policies are instruments to diversify the economic structure and to expand production possibilities. This encourages economic growth and employment opportunities which directly improve the income of the population. In addition, priority is also given to nurture entrepreneurial activity by providing incentives for small and medium-sized enterprises.

Planning and implementation

Institutions can make a difference to poverty eradication efforts. Planning for poverty reduction is an integral part of development planning. The national five-year development plans are the basis for the setting of poverty targets, poverty profiles, strategies, policies, and programmes. Responsibility for the preparation of these national plans, and the mid-term reviews, rests with the Economic Planning Unit (EPU) in the Prime Minister's Department. A pragmatic and prudent approach to macroeconomic management ensures that public resources are utilized efficiently and effectively allocated for development and poverty eradication. Line agencies at the federal and state levels provide institutional support for the implementation and monitoring of poverty programmes. Through this institutional mechanism, a sense of accountability is fostered.

Future challenges

Malaysia's NVP foresees the country becoming a fully developed nation by 2020. Fostering national unity, especially among the younger generations, within a setting of ethnic and cultural diversity, is essential for realizing that vision, for sustaining Malaysia's development, and for eradicating poverty. Similarly, upholding good governance and standards of excellence in both public and private sectors is essential to ensure sustainability of the country's development. Interactions between the public and private sectors are important, as they will help strengthen national commitment for further development of the economy.

Sustaining economic growth

Sustaining economic growth to provide employment opportunities and further improve the standard of living of the population is a continued challenge in an increasingly competitive and open economic environment. Maintaining price stability is essential to ensure that income gains are not eroded by price increases. For instance, it may be necessary to monitor the inflation of food prices as this will influence the consumption of food among the poorer households. Increased food prices will have an effect on the distribution of expenditure between food and non-food items, and consequently, on the nutritional intake of the poorer households.

Development gains have been achieved in a context of political and macroeconomic stability, where there has been a responsiveness to adapt quickly to changing world conditions. This enabling environment will have to be maintained and enhanced to meet greater global competition, including further human resource development, with emphasis on higher education and skills training.

While growth needs to be sustained, there must be a search for new sources of growth. Globalization and the pressures to open up the economy will erode the competitiveness of some economic activities. Low labour costs will no longer be a source of comparative advantage. Existing manufacturing industries, for example, will have to move up the value-added chain. The demand for a more highly skilled labour force will grow, with the services sector being an important source of new growth, including providing employment opportunities for the poor.

Emerging patterns of poverty

The vast majority of the remaining poor households are *Bumiputera*, especially among some of the indigenous communities in Sabah and Sarawak, and the *Orang Asli* in Peninsular Malaysia. Most of the poor work in the agricultural sector in the least developed states. However, some new categories of poor persons are emerging, partly as a result of the country's rapid economic growth and related social and demographic changes. These are likely to include, *inter alia*, single female-headed households and the elderly, especially those not covered by pension schemes and living in rural areas away from their families. The proportion of non-citizens who are poor has also increased, reflecting the rising numbers of low-waged, and/or unskilled foreign workers. With rising urbanization, the number of poor in urban areas is significant, even though urban poverty rates are low. The urban poor include migrants from rural areas, foreign workers, and the unemployed.

The remaining poor in Malaysia are less accessible and may not be amenable to conventional poverty-reducing programmes. Targeted and participatory approaches will be needed, including a special focus on the indigenous communities in Sabah and Sarawak, and the disadvantaged in other less developed states. Further, in addition to being able to identify those who are poor, there is also a need to be able to assess the changing determinants of poverty. By this means, more effective policies aimed at reducing poverty among target groups are being formulated.

The *Orang Asli*, who comprise several different groups, constitute about 0.5 per cent of the total population, or 132,000 people in 2000. A sizeable proportion of *Orang Asli* live

below the poverty line, and face hard-core poverty. The *Orang Asli* have been the specific target of various anti-poverty programmes and have benefited from them (as noted above). Nonetheless, the *Orang Asli* remain one of the country's poorest and most marginalized groups.

Government programmes aim at integrating and assimilating the *Orang Asli* into mainstream development processes have achieved limited success. Participatory approaches, including involving the *Orang Asli* in the design and implementation of policies and programmes affecting their well-being, are likely to gain greater acceptance and ownership, as well as achieve better results.

Potential of ICT for poverty eradication

Information and communications technology (ICT) is transforming the global economy by providing a new engine for development and also changing its fundamental dynamics. Although it provides a new tool for development, the diffusion is still uneven within Malaysia due to limited access. There is a 'digital divide' between the information- and knowledge-rich and the information- and knowledge-poor in the urban and rural areas. ICT provides tremendous potential to create earning opportunities and improve equitable access to education. The integration of ICT in development planning will bridge the gap and alleviate the poverty situation, especially in the rural areas. The *Infodesa* Centre programme, which was launched in 2000, provides ICT training, develops content application and is a one-stop centre for information. With its potential to create earnings opportunities, it can improve the delivery of, and access to, basic services, particularly health and education. Integrating ICT into development planning can empower deprived communities to improve their quality of life.

Improving poverty data

Malaysia's current ability to measure the level of poverty over time has been favourably recognized internationally. However, to supplement the currently available measurements of poverty, eradicating the outstanding pockets of absolute poverty requires a better identification of the characteristics and spatial dimensions of the poor. More detailed information about the characteristics of the poor and where they are located also helps to explain the reasons for their poverty. Analytical poverty profiles are particularly necessary in view of the national goal to eradicate poverty.

Poverty surveys need to be more focused and localized. Smaller-sized household surveys can be more detailed and probing, and they should also include non-income poverty modules. These can be used to assess access by the poor to health, education, utilities, and subsidies. Panel surveys are also useful to help track the changing welfare of poor households, while focus group studies of the poor can help support more participatory pro-poor policy making.

In addition to the possibilities of carrying out new surveys to obtain more data on poverty, currently available nationally collected information, such as the Household Income Survey and Labour Force Surveys conducted since 1974, could be exploited further with respect to information about poor household behaviour and characteristics. Given well-known problems with obtaining accurate income figures using survey methods, information on household consumption may be a useful and informative extension.

Improving poverty measures

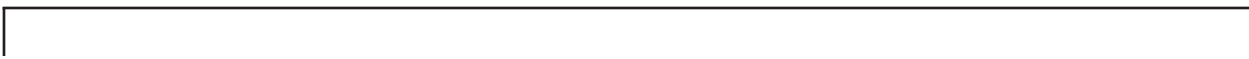
What constitutes poverty in society at a given time can be quite different from the notion of poverty in the same society at a different time. The Malaysian PLI has historically had a consensus justification among national planners and other groups. But that consensus is now increasingly being challenged in the context of a more urbanized, more educated, and more affluent Malaysia.

A way forward would be to build a new consensus around a poverty line that reflects a greater balance between absolute and relative features—that is, by building in more, and giving greater weight to, capability dimensions. Furthermore, it would be useful to complement basic poverty rates with measures that capture the intensity and severity of poverty, as well as decomposing poverty rates to identify the separate contribution of economic growth and income distribution.

New directions

Malaysia's experience confirms the interactive roles played by economic growth and public interventions to enhance the lives of the people, especially its poor. Public policies that raise human capabilities (most notably through health and education) have both pro-poor and pro-growth effects. The accelerated growth provides the government with a better revenue base to raise capabilities even further.

Malaysia has made enormous progress in eliminating poverty. Indeed, the current relatively low levels of absolute poverty suggest that a change of emphasis in public policy may now be called for. This chapter has suggested a number of possible future directions. Firstly, public policy may need to be increasingly directed at improving income inequality in general in view of the fact that households in the lowest 40 per cent of income earners still only receive around 14 per cent of total income. Secondly, there is a continuing need to ensure equal economic opportunities for all Malaysians as ethnic income differentials have remained somewhat unchanged since 1990. Thirdly, economic growth is henceforth unlikely to have the same impact on absolute poverty as it did in the last 30 years of the twentieth century, particularly in improving the welfare of the persistent hard-core poor. Even if targeted interventions played a secondary role (to overall growth) in reducing poverty in the past, they are likely to be very much more important in the future.





MDG 2

Achieve Universal Primary Education

Expanding access and improving the quality of education at all levels has been a continuing national development objective throughout Malaysia's sequence of five-year development plans. Thus the First Malaysia Plan, 1966-1970, stated that 'unless the educational system is geared to meet the development needs of the country, there will be a misallocation of an important economic resource, which will slow down the rate of economic and social advance.'

Upgrading the national education system and broadening educational opportunities have been a central part of the government's strategy to foster national unity and support economic growth. It has also been a strategy to help reduce poverty and expand opportunities and choices for both girls and boys. Government efforts have been supported at the family level by parents who have perceived education as an opportunity for providing upward mobility and a better life for their children.

The government's commitment to education, as a prime contributor to national development, is evidenced by the continuous and large capital investments in educational infrastructure and supported by substantial recurrent expenditures in the period since 1970. Educational expenditure averaged some 17 per cent of total public expenditure, and 5 per cent of the ever-growing GDP over the period 1970-2000.

The MDG target is to ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling (Box 2.1). Malaysia had already achieved this target in 1990 when 99 per cent of boys and girls were enrolled, 97 per cent of whom completed primary 5. At the same time as it has made tremendous progress in providing universal primary education, Malaysia has implemented programmes to meet challenges with respect to educational quality, curriculum relevance and the promotion of pre-school education. This chapter first describes the key trends in indicators of educational progress, and then goes on to discuss the enabling environment, the resources-financial and infrastructure, and specific programmes implemented, insights gained, and future challenges.

Box 2.1 INDICATORS OF PRIMARY EDUCATION

Three related population-based indicators are used to assess progress towards the MDG of universal primary education.

The **net enrolment ratio in primary education** is the ratio of the number of children of primary school age to the total population of children of primary school age. Net enrolment ratios below 100 per cent may provide a measure of the proportion of school-age children who are not enrolled at primary level.

The **proportion of pupils completing year five**, is the percentage of a cohort of pupils enrolled in primary 1 at the

primary level of education in a given school year and who go on to complete year five. This indicator measures the education system's internal efficiency and success in retaining students from one grade to the next.

The **literacy rate of 15-24 year olds** is the percentage of population aged 15-24 who can read and write, with understanding, short simple statement on everyday life. This youth literacy rate reflects the outcome of primary education over the previous 10 years. As a measure of the effectiveness of the primary education system, it is often taken as a proxy measure of social progress and economic achievement.

Trends in school enrolment

In Malaysia, primary education of girls and boys between the ages of 6 and 11 refers to formal education that emphasizes the acquisition of strong reading and writing skills as well as a solid foundation in mathematics and basic sciences. Children usually spend six years at primary school, followed by three years at lower secondary from the age of 12. Those who successfully complete lower secondary spend two years at upper secondary beyond which there are a range of tertiary options. Education is provided free to every child of school-going age, for a period of 11 years, with promotion at the primary schooling level being automatic.

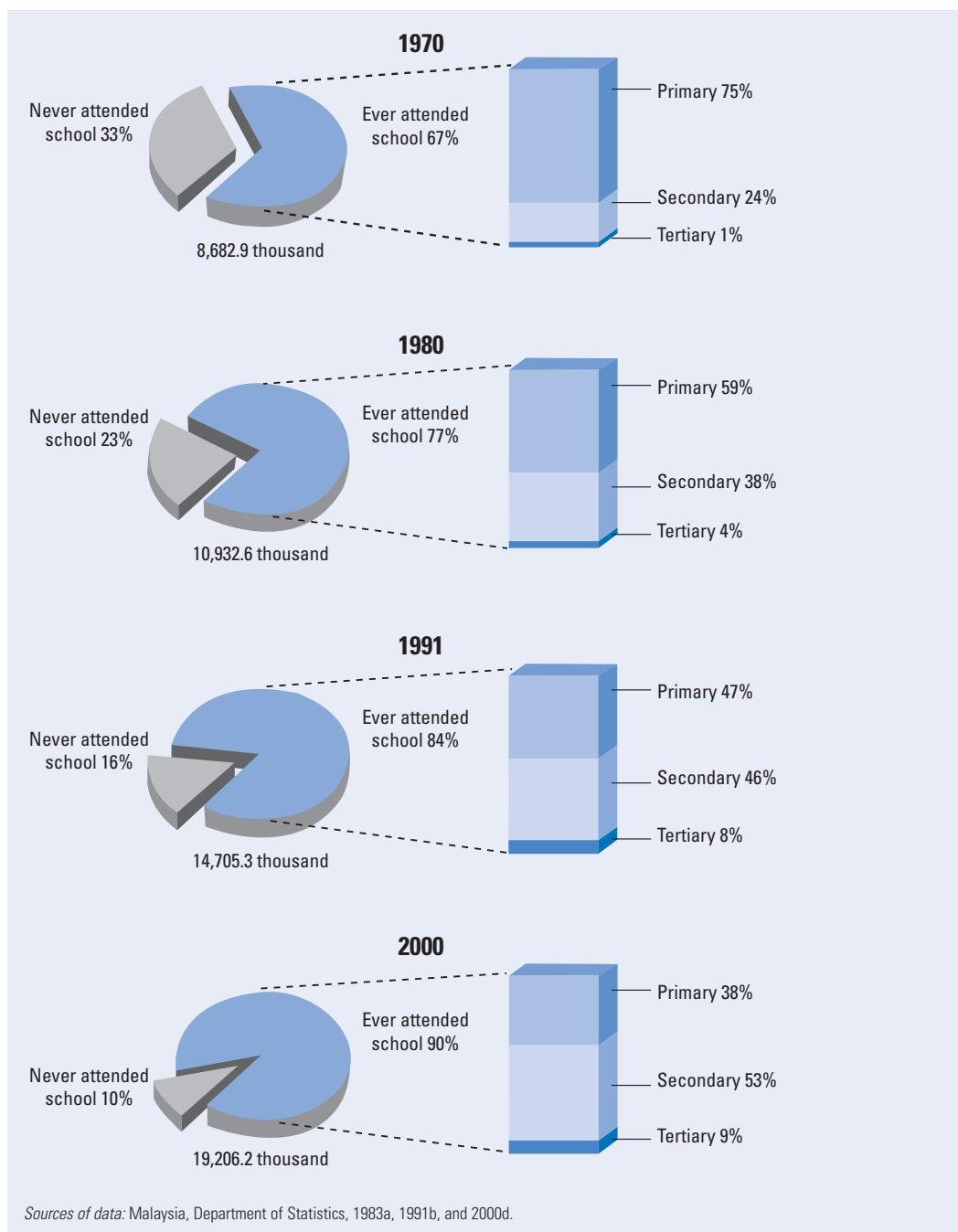
Following the National Education Policy, the medium of instruction at all educational establishments was changed to *Bahasa Malaysia*. The transition from English to *Bahasa Malaysia* began in 1970 and was largely completed by 1980, schools in Sarawak making the transition in medium of instruction somewhat later than elsewhere in Malaysia.

Attainment and literacy

The expansion in educational opportunities in Malaysia over the period 1970–2000 is clearly illustrated in Figure 2.1. In 1970, one-third of the country's population aged 6 and over had never attended school; by 2000, the figure dropped to 10 per cent. Over this 30-year period there were very marked increases in the proportions who had attained secondary and tertiary education.

Over this 30-year period there were very marked increases in the proportions who had attained secondary and tertiary education. In 1970, 24 per cent of persons aged 6 and over had some secondary education and only 1 per cent had attained tertiary education. By 2000, these proportions had increased to 53 and 9 per cent respectively. Thus over time, Malaysia's human capital has risen markedly. Those currently with little or no education are mainly among the older generations.

Figure 2.1 Educational Attainment of Persons Aged 6 and Over, Malaysia, 1970–2000



With the expansion of educational opportunities, literacy, the ability to read and write, has become almost universal among the young. Thus by 2000, less than 3 in every 100 were illiterate as compared to 1970 where about one-quarter of those aged 15–24

were illiterate (Table 2.1). The big gap in literacy levels that existed between young females and males has been progressively narrowed, such that by 2000 there were no sex differentials.

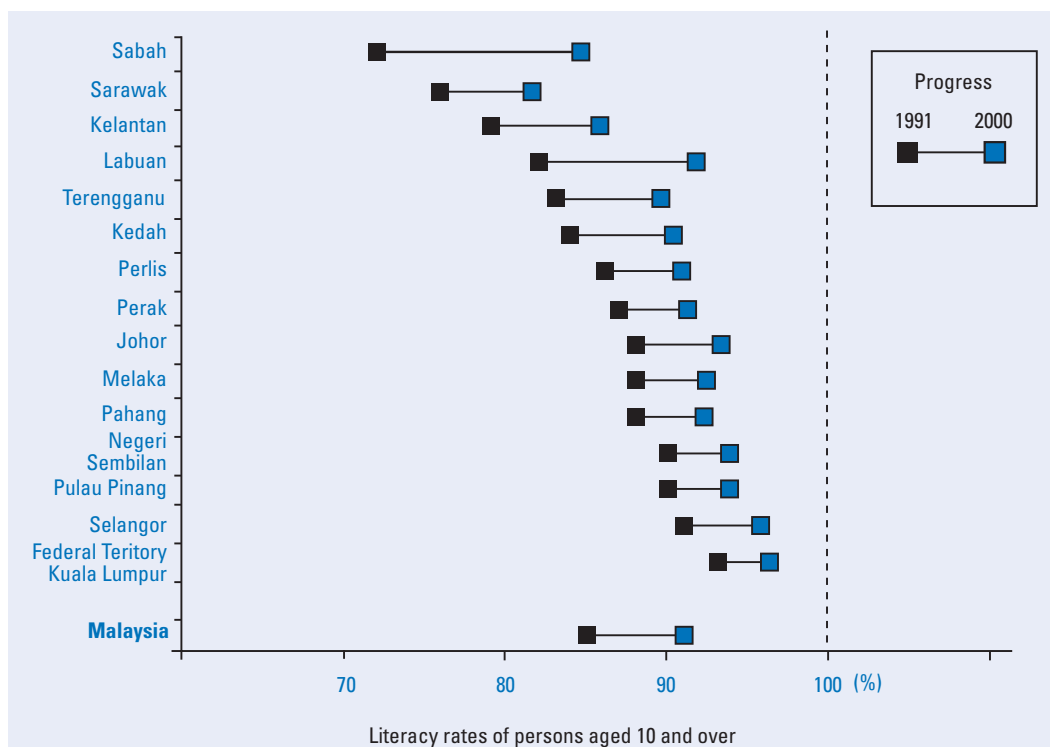
Table 2.1 Literacy Rates of 15–24 Year Olds by Sex, Malaysia, 1970–2000 (%)

Year	Female	Male	Persons
1970	68.0	83.0	75.0
1980	89.9	94.0	91.9
1991	95.3	95.9	95.6
2000	97.3	97.2	97.2

Sources of data: Malaysia, Department of Statistics, 1983a, 1991a, and 2000d.

In Malaysia, literacy levels among persons aged 10 and over reached 92 per cent in 2000, with illiteracy confined mainly to older persons. There are, however, state variations in literacy levels (Figure 2.2). These reflect both historical differences in educational opportunities in the country that tend to mirror disparities in state development patterns. Nevertheless, improvements in literacy levels are occurring in all states and differentials are narrowing.

Figure 2.2 Literacy Rates of Persons Aged 10 and Over, Malaysia, 1991 and 2000



Sources of data: Malaysia, Department of Statistics, 1991a and 2000d.

Substantial gains in literacy rates have been shared by each of the ethnic communities in Malaysia. In 1970, 13 per cent of Indians aged 15–19 were illiterate, with the corresponding figures for the Bumiputera and Chinese being 9 per cent and 6 per cent. By 2000, less than 2 per cent of any of the communities were illiterate (Table 2.2).

Table 2.2 Literacy Rates of 15–19 Year Olds by Ethnic Group, Malaysia, 1970–2000 (%)

Year	Bumiputera	Chinese	Indians
1970*	91.0	94.0	87.0
1980*	96.0	97.0	92.0
1991	96.9	98.4	96.9
2000	98.3	99.6	98.7

Sources of data: Malaysia, Department of Statistics, 1983a, 1991a, and 2000d.

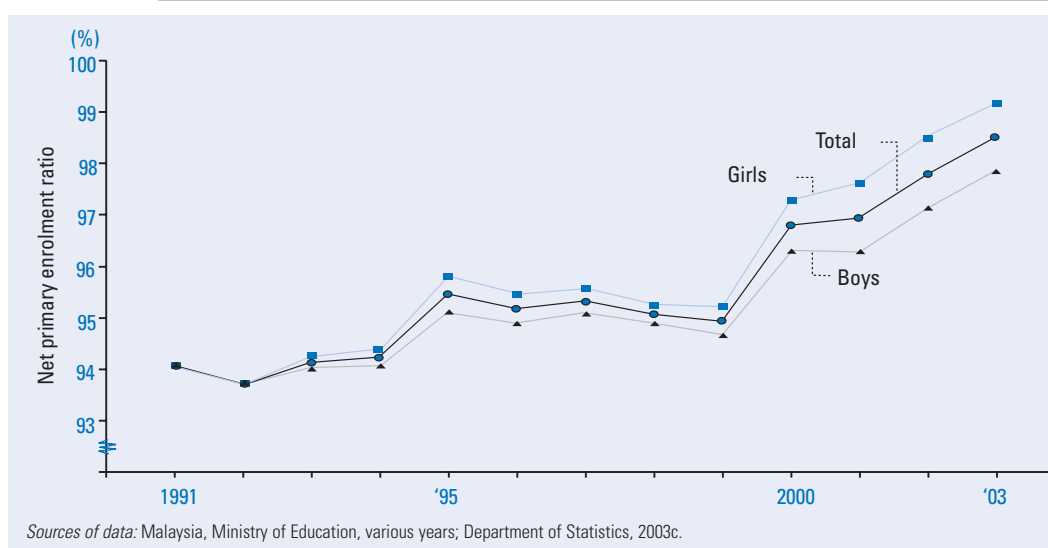
* Relates to Peninsular Malaysia.

Net enrolment in primary education

Even though the number of children enrolled in public primary schools in Malaysia almost doubled between 1970 and 2000, net enrolment ratios more than kept pace. By 1990, universal primary education was almost achieved, when the net enrolment ratio rose to 94 per cent. It fluctuated in the 1990s around this level, as shown in Figure 2.3. Less than 100 per cent enrolment is partly attributable to an increase in the number of children of primary school age attending private schools—the published figures exclude private sector enrolments.

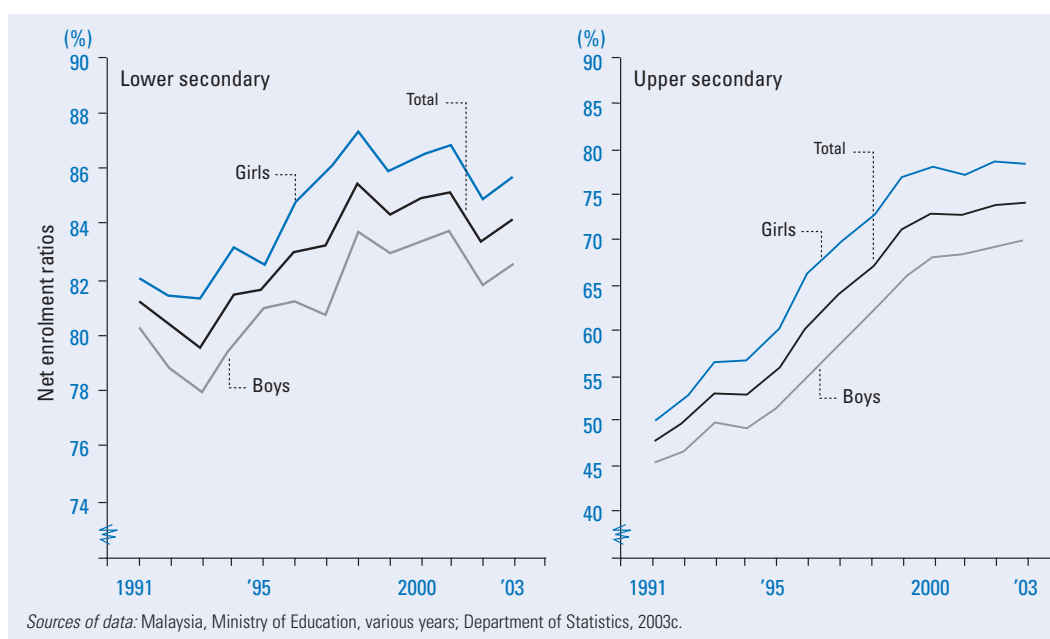
The enrolment ratio of girls in primary schools is almost the same as that of boys for much of the period since 1970. In Malaysia, the education policy does not discriminate against girls. Enrolment of boys and girls increased rapidly as parents began to realize that education provides a gateway for a better standard of living for their children, and that there are opportunities for gainful employment of females.

Figure 2.3 Net Enrolment Ratios in Primary Schools, Malaysia, 1991–2003



One of the effects of an increasing net primary enrolment is increasing net enrolment at the next level of education. Figure 2.4 charts the upward trends, albeit with some annual fluctuations, in net enrolment ratios in lower and upper secondary levels from 1991 to 2003. These figures record enrolment ratios in public schools and it is estimated that approximately 10 per cent of school-going children leave public schools to enter private schools after year 6. For both lower and upper secondary levels, enrolment ratios are significantly higher for girls than boys.

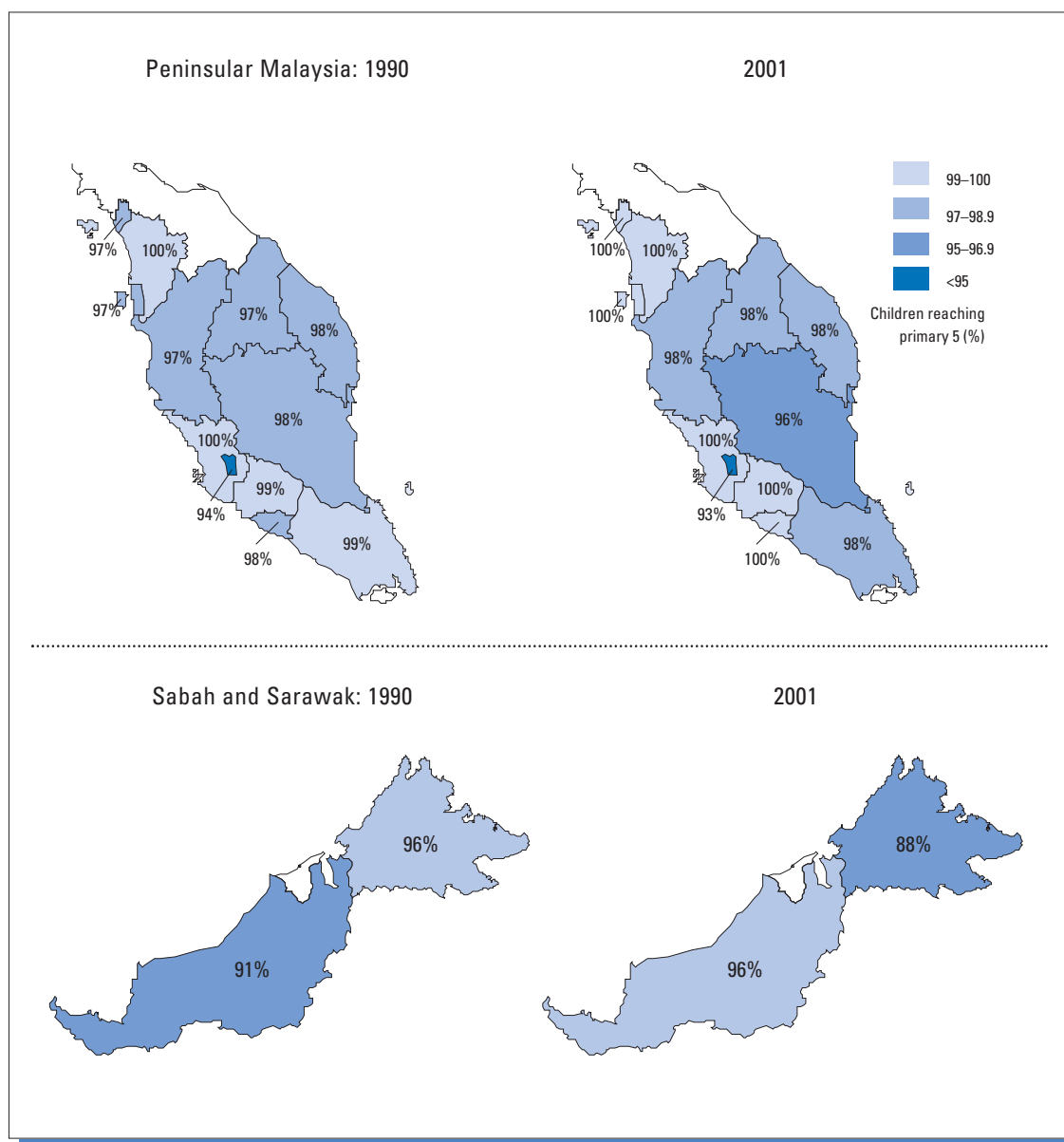
Figure 2.4 Net Enrolment Ratios at Lower and Upper Secondary Levels by Sex, Malaysia, 1991–2003



State disparities in progress from primary 1 to 5

The proportion of pupils starting primary 1 who reach primary 5 was consistently above 97 per cent over the 10 years between 1990 and 2001. The high level of transition through to primary 5 is evident in all states, except in Sabah, where levels have declined (Map 2.1). In fact, overall in Malaysia, the transition rate from primary level to secondary level was above 19 per cent throughout the 1990s.

Educational support programmes, such as scholarships, textbooks-on-loan, and hostel facilities, contribute towards the increasing number of students who complete primary schooling. In 2000, 83 per cent of primary school students benefited from the textbook-on-loan scheme. Accompanying universal primary enrolment ratios are declining pupil-teacher ratios, from an average 30 pupils per teacher in 1985 to 19 pupils per teacher in 2000. This is indicative of national efforts to increase the quality and effectiveness of primary schooling.

Map 2.1 Children Who Achieve Primary 5, Malaysia, 1990 and 2001

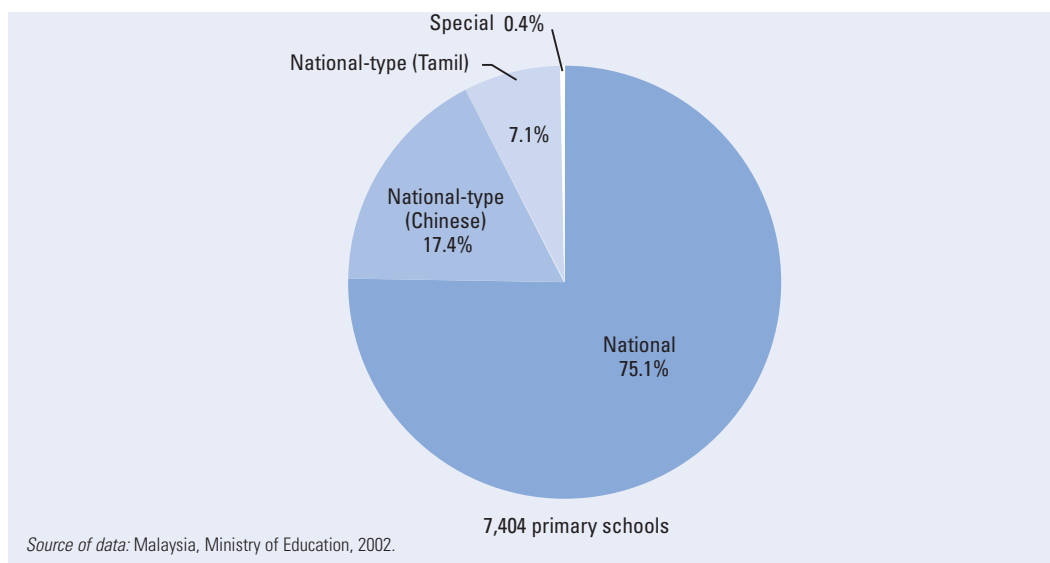
Sources of data: Malaysia, Department of Statistics, 1985b, 1990b, 1998c, and 2001c.

Types of primary schools

There are two types of primary schools in Malaysia, the national and national-type (Tamil and Chinese) schools (Figure 2.5). The medium of instruction in national schools is *Bahasa Malaysia*, while in national-type schools the medium of instruction is Tamil or Chinese, although *Bahasa Malaysia* is a compulsory subject. The existence of these two types of schools is built into Malaysia's Constitution and meets the needs of the country's multi-ethnic population, with a common school curriculum and a national language ensuring

integration. There are also special schools catering for the hearing-impaired and visually handicapped. Overall, the commitment to prepare appropriate and sufficient primary schools can be seen in the increase of 937 schools over a 30-year period from 1970 to 2000.

Figure 2.5 Primary Schools by Type, Malaysia, 2002



In addition, there are currently some 500 national schools equipped with teaching and staff facilities to help integrate children with special needs within the general school system. Almost 10,000 children were enrolled in special schools and classes by 2002, compared with 5,858 in 1996 with a pupil-teacher ratio of 4:9 (Table 2.3).

Table 2.3 Special Education Programme for Primary Education, Malaysia, 1996–2002

	1996	1997	1998	1999	2000	2001	2002
Number of pupils	5,858	7,280	7,559	8,567	8,749	9,747	9,956
Number of teachers	1,190	1,634	1,784	1,937	2,010	2,248	2,248
Pupil/Teacher ratio	4.9	4.5	4.2	4.4	4.4	4.3	4.4

Sources of data: Malaysia, Ministry of Education, various years.

Pre-school

Government attention to pre-schools has increased since the early 1990s. Not only will this have a favourable impact on future educational outcomes, but children who attend pre-schools are less likely to drop out of school in later years. Pre-school educational programmes have been supported by health and nutrition programmes targeted at young children in poor households (see Chapters 1 and 4). Some 400,000 children enrolled in pre-school centres in 2000, representing 64 per cent of children in the 5-6 age cohort.

Enabling environment

The enabling environment for the development of the education sector in Malaysia is influenced by its history, the socio-economic and political situation, and the crucial role of the government in forming the regulatory and institutional framework to implement policies (Table 2.4). In the early years, the government was committed to using education as a nation-building tool. Over time, as political stability was achieved, the role of the education and training sector was taken to a higher level in the 1990s, when it was also a contributor to economic growth.

The present education system in Malaysia has its origins in the pre-Independence era. The British introduced secular education and established the first English school in Pulau Pinang in 1816. Other schools, classified according to the language of instruction, were the Malay, Chinese, and Tamil schools. By 1938, there were 788 Malay schools, 654 Chinese schools, 607 Tamil schools, and 221 English schools. These schools had diverse management and financial resources. They included government-maintained schools, missionary schools, and non-profit schools, all of which received financial aid from the government, as well as privately funded schools.

After the Second World War (1941–6), there was a significant change of attitude towards education among all races which led to an increase in demand for education. This was attributed to the increasingly settled position of immigrants (in part due to post-war developments in China, India, and other neighbouring countries) and the emergence of Malay nationalism. A number of studies led to the National Education Policy of 1957, with subsequent reviews and refinements (Box 2.2).

Box 2.2 EDUCATION POLICY IN MALAYSIA

A number of studies and reviews were carried out to decide on the policies and principles to be followed with regard to education: a Central Advisory Committee on Education set up in 1949; a committee on Malay education which produced the Barnes Report in 1951; and a study on Chinese education which produced the Fenn-Wu Report in 1951. A consideration of these reviews led to the Education Ordinance in 1952.

A review of the education policy in 1956 (the Razak Report) introduced the use of the Malay language as the national language and as a compulsory subject in primary schools (in addition to the English Language), and the use of a common syllabus for all schools. Proposals made in the Razak Report were enacted in the Education Ordinance 1957 and the National Education Policy was formulated. The Razak Report allowed for the transition from a fragmented

colonial education system to one which was more integrated along national lines.

In 1960, a committee was set up to review the implementation of the education policy. The Rahman Talib Report made several recommendations which were subsequently incorporated into the Education Act 1961.

These included the abolishment of school fees at primary level (implemented in 1962), the use of *Bahasa Malaysia* as the main medium of instruction, and automatic promotion to Form 3, thus increasing basic education to 9 years. Universal education was raised to 11 years in 1979 based on the recommendations of the Cabinet Committee Report on Education. The report also gave emphasis to school curriculum to ensure the acquiring of the 3Rs (reading, writing, and arithmetic) at the primary level. In 2003, primary schooling was made compulsory under the Education Act 1996.

Table 2.4 Overview of Primary Education Development, Malaysia, 1960–2000

1960–70	1971–90	1991–2000	2001–10
Pre-NEP	New Economic Policy (NEP) OPP1	National Development Policy (NDP) OPP2	National Vision Policy (NVP) OPP3
First Malaysia Plan (1966–70)	Second Malaysia Plan (1971–5) Third Malaysia Plan (1976–80) Fourth Malaysia Plan (1981–5) Fifth Malaysia Plan (1986–90)	Sixth Malaysia Plan (1991–5) Seventh Malaysia Plan (1996–2000)	Eighth Malaysia Plan (2001–5)
Strategies Related to Education			
Utilized as a social tool to integrate the three major races in the country.		Education continued its role as a social tool. Role for education is further emphasized—human resource development to play a part in leading Malaysia towards Vision 2020. Liberalization of the education sector.	Utilizing lifelong learning to raise the quality of life. Enhancing access to tertiary education. Using knowledge-based education as a tool for employment restructuring.
Major Primary Education Sector Programmes			
Mobilizing resources to increase participation in school. Implementing two school sessions in a day. Abolishing primary school fees (1962). School health programme launched (1967).	Textbook-on-loan scheme introduced (1975). Supplementary food programme introduced (1976). Cabinet Committee set up to review education policies recommended that universal education be raised to 11 years (1979). School milk programme introduced (1983). Identification of the need for hostels to be built to increase participation from rural children (1972). Curriculum review emphasizing the 3Rs in the Fourth Malaysia Plan.	Special Education Department set up to look into the needs of special children (1995). Integrated health school programme launched (1997). Special degree programme for teachers to upgrade non-graduate teachers (1999). Smart schools pilot project launched (1999).	Primary schooling made compulsory (2003). Plans to extend the smart school project (2004).

National policies and plans

Changes and reforms in Malaysia's education system reflect the government's efforts to adapt education to national development needs, in particular economic growth, poverty reduction, human resource development, and national unity. The government's commitment towards education is also seen in the consistency of expansion plans in all Malaysia's five-year national development plans since Independence. Pre-primary and primary school expansions have followed the expansion of the number of school-going children in Malaysia. Pre-primary and primary strategies in all Malaysia's five-year national development plans have been aimed at improving accessibility of education to children and enhancing quality at school. The government's consistent commitment towards education and the improvement of access to pre-primary and primary schooling levels have no doubt assisted in the achievement of universal primary school attainment in Malaysia.

The aim of providing access to education was evident in the First Malaya Plan (1955–60). Although the government faced multifaceted challenges in integrating a multi-ethnic society, it was successful in ensuring that every child of 6 years of age was offered

school admittance. Resources were mobilized to ensure this, with schools undertaking double shifts in order to have two school sessions in a day. The consistency in national policies and plans is evident in the Second Malaya Plan and subsequent five-year national development plans.

In 1970, education policy was aligned to the NEP with its two-pronged strategy of eradicating poverty and restructuring society. National unity was still fragile in the young nation and the *Rukunegara*, or National Ideology (1970) seeks to create a national identity of a united, just, and progressive nation with a plural society of diverse cultures and religions (Box 2.3).

Box 2.3 PRINCIPLES AND PHILOSOPHY OF *RUKUNEGARA*

The five principles of the *Rukunegara*:

1. Belief in God
2. Loyalty to King and Country
3. Upholding the Constitution
4. Rule of Law
5. Good Behaviour and Morality

Underlying the *Rukunegara* are the aims to achieve:

1. A united nation with a plural society
2. A democratic society through a constitutionally

elected Parliament

3. A just society with equal opportunities for all
4. A liberal society of diverse cultural traditions
5. A progressive society oriented towards science and modern technology.

The concepts of national identity and unity enshrined in the *Rukunegara* guide the goals, aims, and objectives of education and all its programmes.

Source of data: Malaysia, Ministry of Education, 1984.

In each of the five-year development plans covering the NEP period, education and training facilities were expanded to allow for higher intakes of students into the various levels of schooling (Figure 2.1). For example, by the end of the Third Malaysia Plan (1976–80), schemes for the poor or low-income pupils were implemented. These schemes provided needy pupils with textbooks, health services, and nutritional programmes. After 1970, education and training were geared towards fostering national unity and aimed at increasing participation of all Malaysians in national development. The education programmes detailed in the Fourth Malaysia Plan (1981–5) were formulated based on the recommendations by the Cabinet Committee after reviewing the National Education Policy. The measures were aimed at improving the teaching and learning process, such as class size, pupil-teacher ratio, and curriculum. Priority was also given to schools in the rural areas.

Curriculum-wise, the Fourth Malaysia Plan detailed a new curriculum for the primary school level, which carried an objective of establishing a firm educational foundation, especially in reading, writing, and arithmetic (the 3Rs). The outcome of this change is seen from the high literacy rate achieved by Malaysians. The government was visionary in its planning and implemented appropriate actions to accommodate its national policies and plans. In the Fourth Malaysia Plan, the idea of extending the 9 years of universal schooling to 11 years was initiated. To ensure that this would be possible, the government made plans to expand upper secondary school facilities.

The expansion of the primary schooling level initiated expansion spillover effects onto the other schooling levels. For instance, the curriculum reform which began in the Fourth Malaysia Plan was extended to the secondary level in 1989. Under the broader umbrella of the NDP (1991–2000), human resource development was rendered as an important contributor to growth, therefore placing further emphasis on the education sector. The importance of the education sector continues to be laid out as Malaysia enters into the Eighth Malaysia Plan (2001–5).

Institutional framework

The MOE is the principal institution that implements the National Education Policy. However, other ministries, such as the Ministry of Agriculture and Rural Development (currently known as Ministry of Agriculture and Agro-Based Industry and Ministry of Rural and Regional Development), also implement education programmes in rural areas, particularly the provision of schools for pre-schoolers. In the rural areas, accessibility to education is provided with the support of other ministries which include the Ministry of Transport, the Ministry of Energy (currently known as Ministry of Energy, Water and Communications), the Ministry of Information, and the Ministry of Health. Private agencies, NGOs, associations, and religious bodies are also involved.

In the 1970s and 1980s, Malaysia also received some external assistance for education and training in the form of technical assistance and investment programmes. The WB and the ADB were the major sources of external assistance. Many one-off budgets are also received from international bodies, such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations International Children's Emergency Fund (UNICEF), to further assist in achieving universal primary education.

While universal primary education was achieved in 1990, educational priorities continued to be focused on improving access of the poor to quality education. To attain the objective of becoming a developed nation by 2020 as envisaged in Vision 2020, the education sector's strategic thrust now centres on reducing the gap in student performance between the urban and rural areas and among the states, improving the delivery system in line with technological change, and creating a knowledge-based economy.

Budget allocations

Expenditure on primary schooling is mainly funded through the federal government budget. There has been a marked uptrend over time in the proportion of development expenditure on education. The proportion more than doubled between 1980 and 1990 and then nearly doubled again by 2003, when the amount increased to 25.9 per cent (Table 2.5).

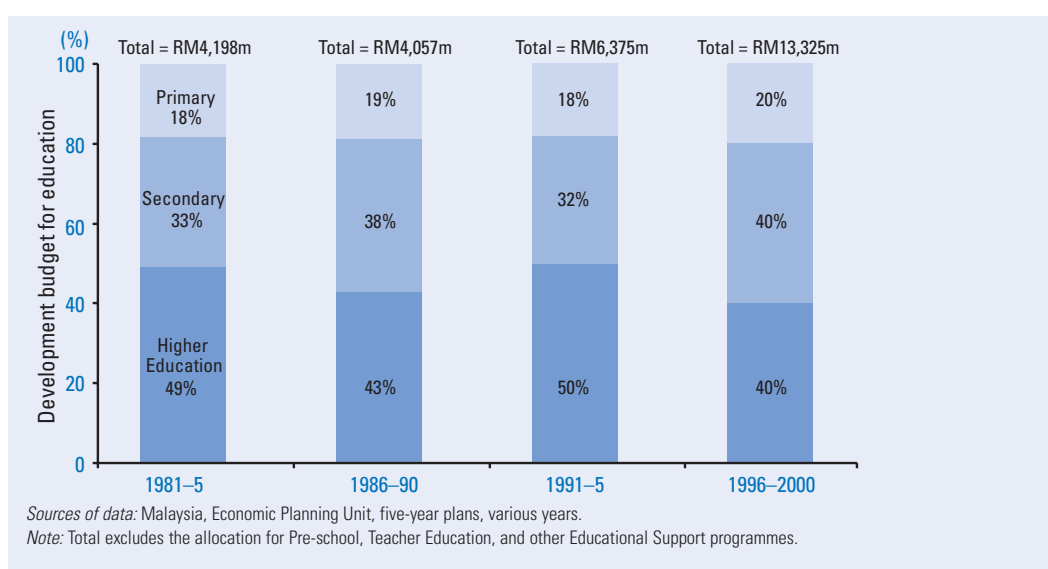
Table 2.5 Federal Government Expenditure on Education as a Percentage of Total Development Expenditure, Malaysia, 1970–2003

	1970	1980	1990	2000	2003
Expenditure on education	6.1	7.5	15.3	25.4	25.9

Sources of data: Malaysia, Ministry of Finance, various years.

Under successive five-year development plans, expenditure for education rose sharply, mainly reflecting continuously higher investments in secondary and tertiary education (Figure 2.6) alongside expanding resources at the primary education level. The rising expenditure on higher education reflects the government's drive to develop human resources to meet the country's vision of reaching developed nation status by 2020. In addition, private sector participation in the provision of higher education is increasing and the government is playing a key role in providing guidelines and monitoring the quality of private institutions.

Figure 2.6 Development Allocation for Education in the Malaysia Five-Year Plans, 1981–2000



Infrastructure allocation

Resource allocation strategies to ensure the availability of proper infrastructure for children at school have consistently been reviewed in all Malaysia's five-year national development plans. Evidence of resource-allocation strategies can be seen from the early days after Independence.

Besides ensuring that accessibility to school is constantly improved, the government is also dedicated to providing an environment that is conducive to learning. New classrooms are constructed to overcome overcrowding problems in urban schools and to replace dilapidated classrooms. For example, under the Eighth Malaysia Plan, a total of 144 new schools were built to provide 3,456 new classrooms, while another 7,360 classrooms were constructed, 20 per cent of which were meant to replace dilapidated classrooms. School facilities in Malaysia also cater to single and double shifts of schooling that enable two primary schools to be run using the same premises. In addition to providing and upgrading classrooms, other school facilities have also been provided, such as canteens, science laboratories, libraries, fields, road access to schools, electrical and water systems, and sanitation.

Resource-allocation strategies are also useful in addressing the performance gap between rural and urban schools. As part of this strategy, the centralized school programme was implemented to improve accessibility and provide a better learning environment for students in remote areas. Under this programme, schools with enrolments of less than 150 students are grouped into a single school complex. Under the Eighth Malaysia Plan, two pilot projects were launched, one each in Sabah and Sarawak. These new school complexes are equipped with hostels, living quarters for teachers, and adequate teaching and learning facilities.

Programmes

Malaysia's success in achieving universal primary education is, in large part, attributed to the creation of an environment conducive to primary education. This includes providing proper infrastructure to ensure access to schools and supporting the needs of the rural poor.

Textbook-on-loan scheme

The textbook-on-loan scheme was introduced in 1975 to reduce the financial burden of parents with low incomes and also to ensure access to education for every child. The criteria for eligibility for the loan are based on the parents' or guardians' income and the number of school-going children. Out of more than three million primary school children enrolled for the year 2002, 84 per cent of them qualified for the textbook-on-loan scheme.

Supplementary food scheme

The supplementary food scheme in schools was introduced after a survey conducted in 1972 revealed that the majority of school children, especially those in rural areas, came to school without breakfast. In addition, many children were undernourished. This scheme was introduced in 1976 as part of the National Applied Food and Nutrition Programme, organized by the Prime Minister's Department, and was primarily for schools in rural areas, as part of its community development service. The implementation of this programme was taken over by the MOE in 1980. Currently, 0.5 million of the 3 million primary school children benefit from this scheme. This programme is aimed at children whose parents earn RM400 or less per month. About RM123 million is spent annually on the supplementary food programme. Apart from improved health, the rate of attendance has improved for children from poor families.

School health programme

A School Health Plan was introduced in 1967 with the objective of producing school pupils who are healthy and productive. After more than three decades since its implementation, this concept has been expanded. In 1995, WHO introduced the Health Promoting School

Project (HPSP). With the cooperation of the MOH, the MOE provides health and dental services for primary school children from Primary 1 to Primary 6. In terms of health services, the height and weight of primary school children are taken and recorded. In addition, referral services are provided. Immunization is given to children aged 6–7 years. Female pupils in Primary 1 are given rubella immunization. In line with this concept, Malaysia carried out its pioneer project in six states and the Integrated Health School Programme was launched in 1997.

School milk programme

In the 1970s, the Ministry of Agriculture ran a programme to supply milk to schools, especially rural schools. From 1983, the MOE, with the assistance of a number of local milk manufacturers, started a new programme. The School Milk Programme which complements the Supplementary Food Programme is specifically for the poor and under-privileged pupils. Under this programme, these children receive two to three packets of milk per week. Funds spent on this programme totalled more than RM16 million per annum.

Hostels

The move to build hostels for primary schools was based on the recommendation of the Dropout Study of 1972. To ensure accessibility of education to every child, school boarding facilities in the form of day school hostels, central hostels, and fully residential school hostels have been set up throughout the country. Factors which determine entry into this facility include the distance of pupils' homes from the school, socio-economic status of the parents or guardians, and the scholastic achievement. The bulk of the hostels are located in Sabah and Sarawak. Primary school hostels are also constructed for the *Orang Asli* schools. These

Box 2.4 SPECIAL EDUCATION IN MALAYSIA

Through its Special Education Department, the MOE provides educational facilities to three types of children with special educational needs, namely, children with visual impairment; children with hearing impairment; and those with learning difficulties.

These include children with Down Syndrome, light autism, attention deficit hyperactive disorder, minimal mental retardation, and specific learning problems, such as dyslexia. Three types of special education programmes are provided, namely:

1. Special education schools for children with visual and hearing impairment;
2. Integrated classes in mainstream primary and secondary schools for the three types of special education needs mentioned earlier; and
3. Inclusive programmes in mainstream primary, secondary, and technical and vocational secondary schools.

To cater to the needs of these special children, teachers are trained either overseas or locally. For its long-term planning, the Department of Special Education has prepared the *Teacher's Handbook for the Implementation of Special Remedial Programme* for primary school teachers to enable them to assist these primary school children. Training of resource teachers was also carried out by the Department of Special Education.

The national primary school curricula are used in special education schools and in inclusive education programmes. However, the curricula have been modified to address the needs of these children. Both core and compulsory subjects of the national curricula are offered. Children with special needs sit for the same public examinations with certain modifications. For example, visually impaired candidates have their examination papers in Braille and are provided with the necessary equipment.

hostels, targeted at rural children from low socio-economic backgrounds, are built in low-enrolment schools with about 10–30 children per school. As of 2002, there are 132 such hostels, with a total enrolment of 37,158 children.

Special education

Malaysia has implemented a number of programmes to reduce disparities in education, one of which is in the area of special education. To reduce educational disparities between normal and special children, the MOE set up the Special Education Department in 1995. This is in line with the International Declaration on Education for All (1990) and the United Nations' Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) (Box 2.4).

Teacher education

The Teacher Education Division (TED) formulates policies and guidelines for the training of pre-service and serving teachers which include formulation, implementation, and evaluation of teacher education curricula; selection of teacher trainees and course participants; and the planning and coordination of staff training programmes. Three pre-service teacher-training programmes are run by the TED, including the Diploma in Teaching for candidates with high school certificates; the Postgraduate Diploma in Teaching for degree holders, and the Teaching of English as a Second Language (TESL) programme for undergraduates. Special Diploma or Professional Development courses are conducted for teachers to upgrade their professional knowledge and skills.

The proportion of untrained teachers at primary level has been gradually reduced and was about 5 per cent in 1998. The majority of untrained teachers are found in rural schools. However, special measures are nevertheless taken to send better trained teachers to serve in the rural schools for a period of time; and quarters for teachers are provided. It is envisaged that during the Third Outline Perspective Plan (OPP3) period (2001–10), an increasing number of primary school teachers are expected to be degree holders, some with postgraduate degrees as well as qualifications in child psychology. At the end of the Seventh Malaysia Plan (1996–2000), 3,000 teachers with a Master's qualification, together with a total of 36,500 non-graduate teachers for primary schools, were trained. The government's emphasis on raising teaching standards through improving the quality of its teachers is further evidence of its commitment to educating the Malaysian population.

The current goal is for 50 per cent of primary school teachers to have university degrees. To achieve this goal, a special degree programme was designed in 1999 to upgrade non-graduate teachers. This is a one-plus-two programme (one year at a selected teachers' college and two years at a university that offers teacher education training). The TED also provides computer training for primary school teachers in the Smart Schools which promote teaching and learning through the use of multimedia. In addition, by the end of the Seventh Malaysia Plan, the teacher training curriculum was revised to incorporate the use of computers and multimedia, especially in subjects such as Mathematics, Science, *Bahasa Malaysia*, and of English Language. To forge better usage

of computers and learning methods that emphasized practical learning, teachers were trained to use various teaching aids, such as computers, improved textbooks, and new teaching guidelines, especially for students in Primary 4, 5 and 6. Short courses were also implemented during the Seventh Malaysia Plan to upgrade teachers' skills. Improved public examination results are evidence of the successful implementation of these efforts in improving teachers' skills. The passing rate for Mathematics improved from 68 per cent in 1995 to 76 per cent in 2000, while that for Science, increased from 75 per cent in 1995 to 78 per cent in 2000.

Curriculum

In addition to improving and enhancing teacher development, the Malaysian government also works towards improving the curriculum at school to meet the changing needs of the economy. During the Fourth Malaysia Plan, the primary school curriculum was revised with the aim of providing and establishing a firm education in reading, writing, and arithmetic. This led to the development of a new curriculum emphasizing the 3Rs. Studies looking at the returns to education in Malaysia have found positive results in those who have had some form of formal education, thereby providing support to the government guidelines on the primary curriculum which emphasizes the acquisition of basic skills.

Adapting the curriculum to meet the changing needs of the economy has also been an agenda on the educational front of the various developmental plans implemented by the government. In line with making science and technology an integral component of socio-economic planning and development, the government introduced the element of science in the Primary 1 curriculum during the 1994/5 school session to encourage higher enrolment and achievement in the science stream at the secondary school level. With the rise of ICT, a Smart School concept was introduced in 1999 where some 90 schools were selected and provided with computers on a pilot basis. At the end of the Seventh Malaysia Plan, a computer literacy programme and computer-aided learning methods were implemented in primary schools, starting initially with 20 primary schools expanding later to 240 schools. The implementation of this programme was carried out with the cooperation of the private sector which complements the role of the public sector.

Remedial education

In Malaysia, the importance of remedial education gained attention in the 1960s. Results of a pilot project in nine schools between 1967 and 1970 showed a need for remedial education, especially for pupils in rural areas. This paved the way for remedial education programmes in primary schools. The pioneers in the field attended a two-year intensive course on remedial education in the United Kingdom. Subsequently, a national series of seminars and workshops on remedial teaching were organized. With the exception of small schools or under-enrolled schools, every school is allocated one remedial education teacher. At the school level, a Remedial Education Committee is formed, comprising the headmaster, remedial education teacher, class teacher, subject teacher, resource centre coordinator, and other teachers as members.

The introduction of a new curriculum for primary schools in 1983 implied a return to

the basics in education. The ultimate goal was to ensure that no pupil is illiterate by the year 2000. The implementation of the remedial education programme for children in Primary 1–3 is to ensure that they master the 3Rs. Children who have been recommended for remedial education are required to attend remedial classes. As of 1999, 54,000 primary school children have undergone the intervention programme.

Insights gained

Malaysia's success in achieving universal primary education is attributable to many factors. These include the government's early investment in education to ensure all children have access to it, the political will to have the institutional and policy framework in place, and the commitment by all stakeholders. The investments in education have had benefits for households and families, as well as for the economy. It is evident that as accessibility to education has greatly improved, the incidence of poverty declined (Figure 2.7). Similarly, as literacy rates of women have increased, family size has declined (Figure 2.8).

Benefiting from the spread of education

Education plays a central role in the country's pursuit of economic growth and development, as well as being an important factor in the reduction of poverty. Education provides many beneficial externalities and has long-term effects on individuals. Government policy has been to encourage education at all levels, backed up by budgetary commitments. Free basic education for boys and girls has been supported with programmes targeting the poor, especially in rural areas, to encourage them to attend and to stay in school. The development policies set by the country in its national plans contributed to the achievement of universal primary education by 1990.

Keeping children at school

Reducing costs. To ensure universal primary enrolment, Malaysia made basic education free and provided assistance for indirect costs, such as school uniforms and shoes. Lowering out-of-pocket costs prevents parents from discriminating between boys and girls when deciding whether to send children to school and, in times of declining household income, discourages them from allowing their children to drop out of school. School Food Programmes, as well as the textbook-on-loan scheme, are also effective in getting children into school and ensuring completion of primary education as is the provision of hostels for children from rural and remote areas.

Automatic progression. Malaysia instituted automatic promotions to address the inefficiency of repeat class years and reduced the high dropout rates. However, standards are maintained with the provision of additional inputs, especially classroom materials, teacher training, and remedial classes.

Figure 2.7 Relationship Between Poverty and Literacy Rates, Malaysia, 1991 and 2000

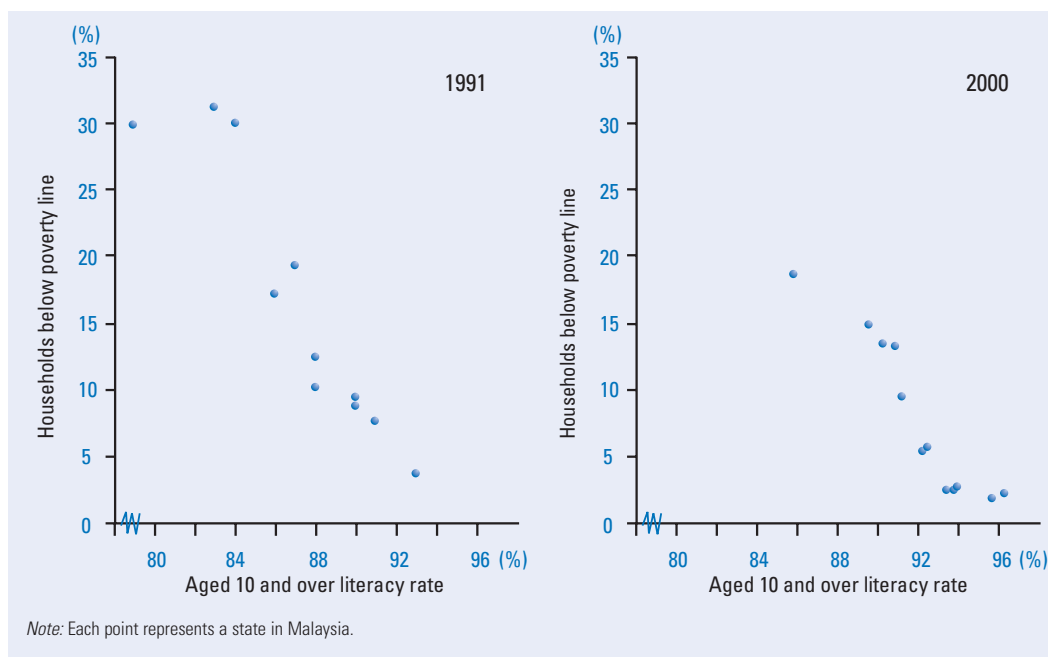
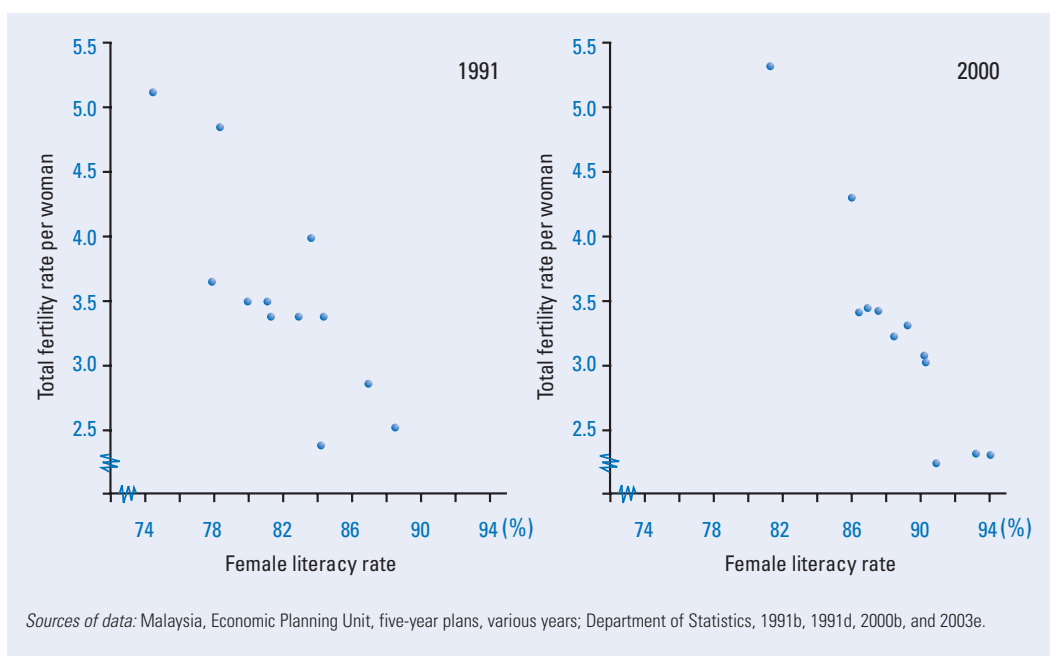


Figure 2.8 Relationship Between Female Literacy Rate and Family Size, Malaysia, 1991 and 2000



Future challenges

Despite the success in achieving universal primary education, challenges remain in improving the quality of primary education and ensuring the relevance of curricula. Attendance at pre-primary schools, which varies widely, can be improved to help upgrade performance at the primary level.

Access to basic education

Enrolment rates in remote and sparsely populated areas, especially in Sabah and Sarawak, continue to lag behind. These are often in areas with concentrations of the low-income group, and where parents may not be able to afford the opportunity costs of sending their children to school, and may need their children to work to help supplement the family income. Remote areas where indigenous people live present further challenges for the government in terms of building schools and hostels, and sending teachers to teach. A special focus on expanding educational access for the hard-to-reach groups is a particular challenge both in relation to the strategies required and the costs involved.

The academic performance of children from rural areas lags behind that of children in urban areas. One reason for this is the lack of experienced and trained teachers in rural areas, particularly the remote areas. Another is the digital divide between rural and urban areas due to the poor ICT infrastructure.

Curriculum relevance

The current primary education system is examination-oriented. This increases the pressure on parents, teachers, and students to measure performance based entirely on examination results. While such measurements are necessary, they tend to encourage rote teaching and learning. Some children who perform well in examinations may not necessarily understand fundamental concepts and are therefore unable to apply, for instance, mathematical or science concepts outside the school or textbook context. This concern is aggravated by the pressure to ensure that the curriculum keeps pace with the changing needs of the economy.

Teachers' development

Besides ensuring that the current curriculum is relevant to the changing needs of the economy, the government has to monitor the development and welfare of teachers amidst the rapid changes affecting the educational system. It is imperative to detect any negative impact on the welfare of teachers. The impact of the new teacher development curriculum, such as the implementation of computer-aided learning and the revamped curriculum, needs to be reviewed to ensure that teachers are not overly burdened.

Role of the private sector

There has been increasing participation by the private sector in education at all levels with an increase in private school enrolment at both the pre-school and primary levels. Government regulations and rigorous monitoring are required to ensure the quality of private schools. The amendment of the Education Act 1996 (Amended 2001) to accommodate the formulation and implementation of the National Pre-School Curriculum has enabled the coordination between the public and private education providers.

New directions

The education and training sector in Malaysia is a vibrant and dynamic sector. Education continues to be a social unity tool that is used to unite and integrate the three ethnic communities in Malaysia as well as to produce a knowledgeable, trained, and skilled society.

The way forward is to ensure that access to universal education continues to be available, especially to the poor and those in remote and sparsely populated areas. Future public policies on education will need to be sensitive to the possibility of an increasing urban-rural digital divide. Other aspects of education that require monitoring as Malaysia advances into the twenty-first century concern the need to ensure curriculum relevance, the quality of education amidst changing needs in the economy, and the important role of the private sector in education.



MDG 3

Promote Gender Equality and Empower Women

For much of the post-Independence era, Malaysian women and girls have enjoyed equal opportunities with men and boys in access to basic social services. Equality in access to services, promoted since Independence, is reflected in marked improvements in education and health outcome indicators for both women and men. Even in 1970, the gender disparity in primary education had largely disappeared. With these gains, women have been mainstreamed into development processes and by playing a variety of roles at the family, community, and society levels, they have been able to contribute to national development and prosperity.

The single target of MDG 3 is to achieve gender equality and women's empowerment and to eliminate disparities in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015. Of course, investments in girls' education lead to high returns in a broad range of sectors that contribute towards the development of the country. However, by also specifying indicators in the spheres of employment and participation in political decision making (Box 3.1), it is recognized that eliminating gender disparities in education is a necessary but not a sufficient condition for eliminating other gender inequalities, as well as for fully empowering women.

Starting from the Fifth Malaysia Plan (1986–90), the crucial role of women in development has been increasingly reflected in national development plans. Gender sensitive policies and programmes that accompanied sustained economic growth have helped to promote gender equality and women empowerment.

Box 3.1 INDICATORS FOR MONITORING GENDER EQUALITY AND WOMEN'S EMPOWERMENT

Four key indicators are used to monitor progress of the MDG to promote gender equality and empower women, with its related target to eliminate gender disparity in primary and secondary education, preferably by 2005 and at all levels of education no later than 2015. These are (i) *ratio of girls to boys in primary, secondary and tertiary education*; (ii) *ratio of literate women to men, 15–24 years old*; (iii) *share of women in wage employment in the non-agricultural sector*; and (iv) *proportion of seats held by women in national parliament*.

The *ratio of girls to boys in primary, secondary and tertiary education* is defined here as the ratio of enrolment rates of female students to male students (separate indicators are given by levels of education). The ratio of rates rather than numbers is used, to standardize for difference in the sex ratio at birth. It is a measure of the equality of opportunity of the education system.

The *ratio of literate women to literate men aged 15–24 years* is the ratio of the female literacy rate to the male

literacy rate for the age group 15–24. This indicator measures progress towards gender equity in literacy and learning opportunities for women in relation to those for men. It also measures a presumed outcome of attending school and is an important indicator of women's empowerment.

The *share of women in wage employment in the non-agricultural sector* is the share of female workers in the non-agricultural sector (which includes industry and services) expressed as a percentage of total employment in the sector. This indicator measures the degree to which labour markets are open to women in industry and service sectors, which reflects both equal employment opportunity for women and economic efficiency through flexibility of the labour market.

The *proportion of seats held by women in national parliaments* is the number of seats held by women expressed as a percentage of all occupied seats. Women's representation in parliaments is one aspect of women's opportunities in political and public life, and is therefore closely linked to women's empowerment.

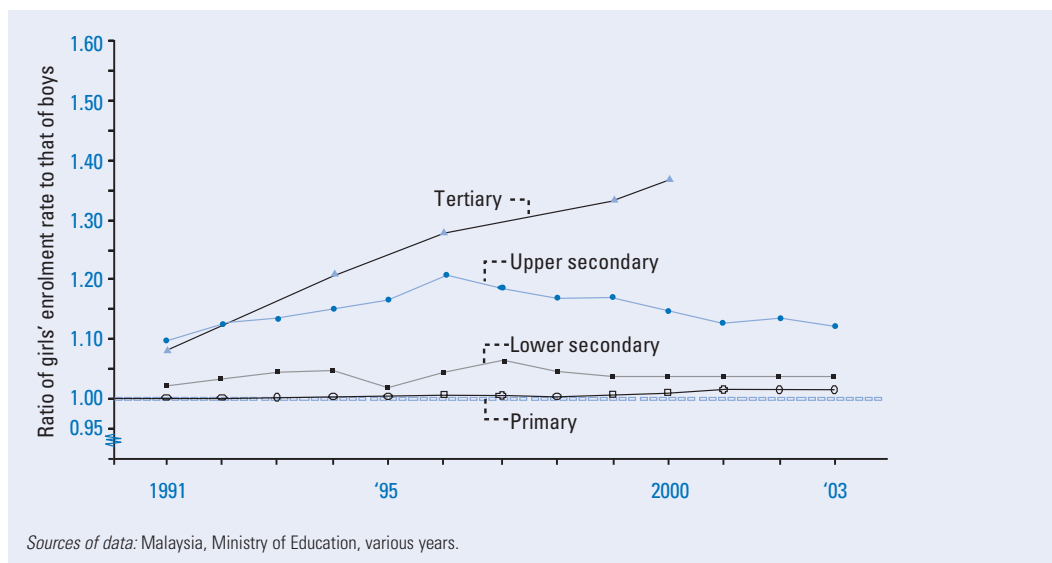
This chapter reviews the extent to which Malaysia has achieved the goal of gender equality and women's empowerment. It begins by reviewing the evidence of progress in the spheres of education, employment, and political life. It next considers the enabling environment and the policies, strategies, and programmes implemented to overcome constraints in gender equality. It concludes with an assessment of some of the key challenges that remain for achieving the goal.

Trends in gender equality

Gender equality in education

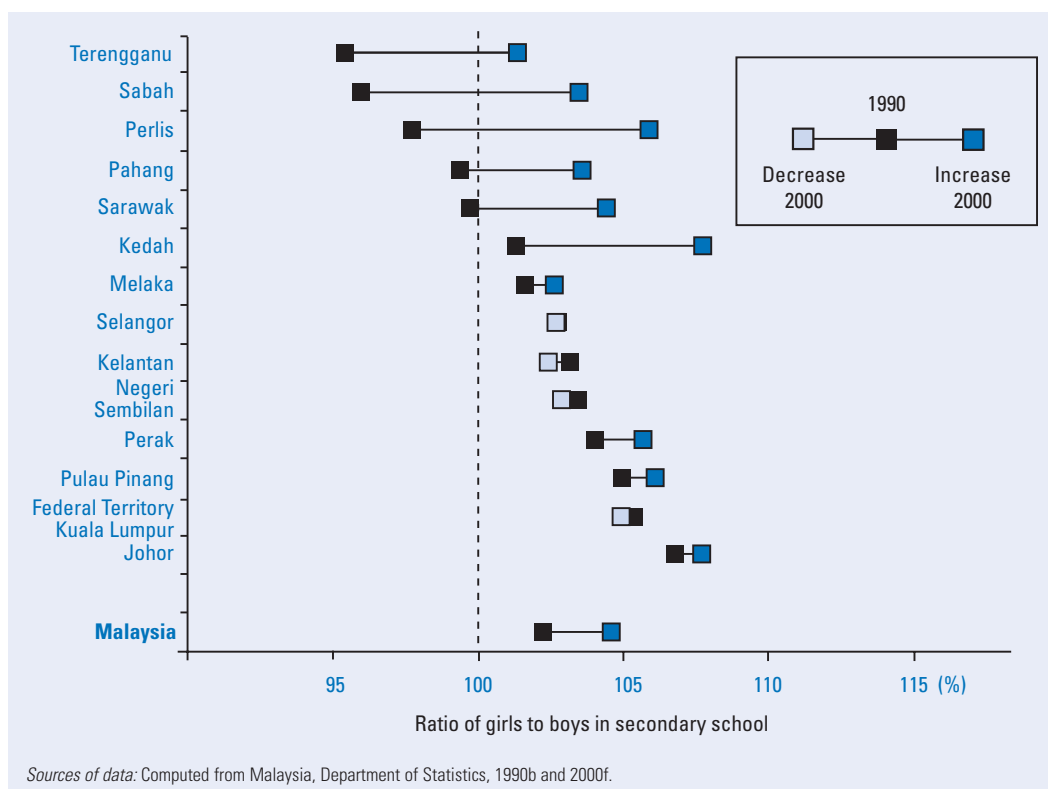
Since the beginning of the 1990s, enrolment rates of girls have been equal to, or have exceeded, those of boys at all levels of education (Figure 3.1). At the primary level, where enrolments are universal for boys and girls (see Chapter 2) there is gender parity. At the lower and upper secondary level, enrolment rates of girls were higher than those of boys throughout the period 1991–2003. At the tertiary level, there has been an increasing trend in enrolment rates of girls, reflecting in part the much greater number of girls than boys seeking tertiary qualifications. This in turn is attributable to girls performing better than boys in public examinations. Gender gaps prevail in terms of the selection of courses. Girls tend to dominate in the arts, economics, and business courses but are in a minority in technical and science-based courses such as engineering.

Figure 3.1 Ratio of Girls to Boys Enrolled by Educational Level, Malaysia, 1991–2003



During the decade 1990–2000, the ratio of girls to boys in secondary schools increased in almost all states in Malaysia. By 2000, even the four less developed states of Terengganu, Sabah, Perlis, and Pahang had reversed the situation where secondary enrolment of boys was greater than that for girls in 1990 (Figure 3.2). Given investments made to achieve universal primary schooling, further progress could be made in encouraging girls in Malaysia to enrol in subjects where they are under-represented.

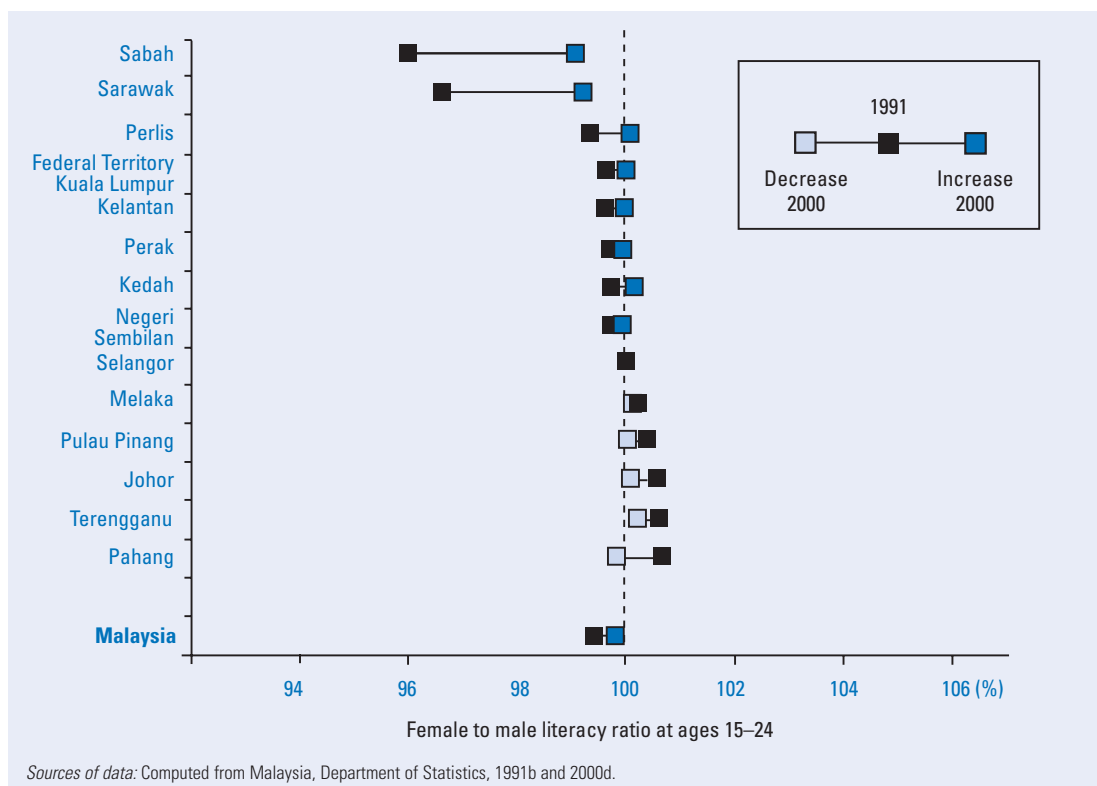
Figure 3.2 Ratio of Girls to Boys in Secondary School, Malaysia, 1990 and 2000



An important outcome of the spread of educational opportunities for girls has been a closing of the gender gap in literacy levels among youths aged 15–24. This achievement has also been made possible with mandatory schooling of up to 11 years for all children. By 2000, only in Sabah and Sarawak, where marked improvements had taken place during the 1990s, were literacy rates of young women lagging behind those of young men (Figure 3.3).

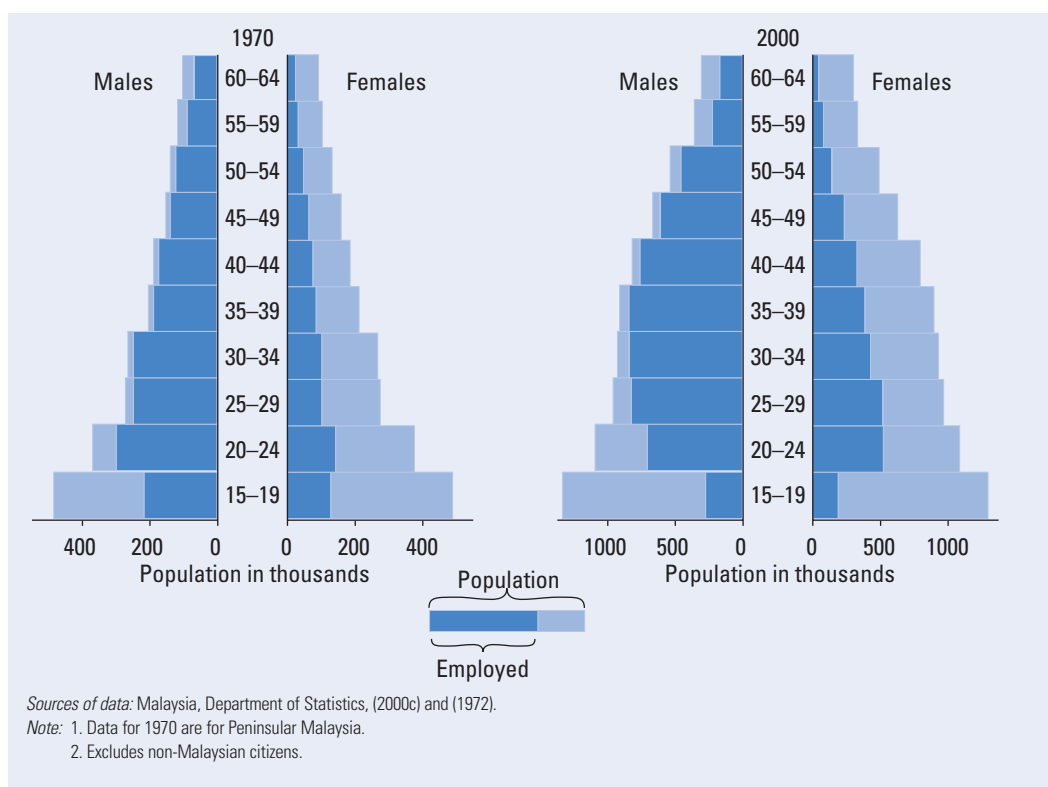
We turn next to consider to what extent gender equity in education has resulted in equality in employment and political life. This is analysed by using sex-disaggregated data on economic activities of the population and the level of representation of women in political decision making.

Figure 3.3 Ratio of Female Literacy Rates to Male Literacy Rates at Ages 15–24, Malaysia, 1991 and 2000



Gender equality in employment

While the number of persons in the labour force has risen sharply over the past three decades, the distribution between males and females has remained stable. The female labour force participation rate at ages 15–64 has remained at around 47 per cent throughout much of the period between 1975 and 2002 (Table 3.1). By contrast, the labour force participation rate of males, although falling slightly, has been consistently above 80 per cent over the corresponding period. The tendency for a sizeable proportion of women to stop work after they have their first birth, and not return once their childbearing is complete, has been a continuing feature of Malaysia's labour market, and this pattern holds for each of the ethnic communities (Figure 3.4). For example, age-specific participation rates generally decline sharply after ages 20–24 (Malaysia, Department of Statistics, 2000). This is in contrast to the situation of many industrialized countries where women either do not leave the labour force during childbearing or re-enter once their childbearing has been completed.

Figure 3.4 Employed Population by Age Group, Malaysia, 1970 and 2000**Table 3.1** Labour Force Participation, Malaysia, 1975–2002

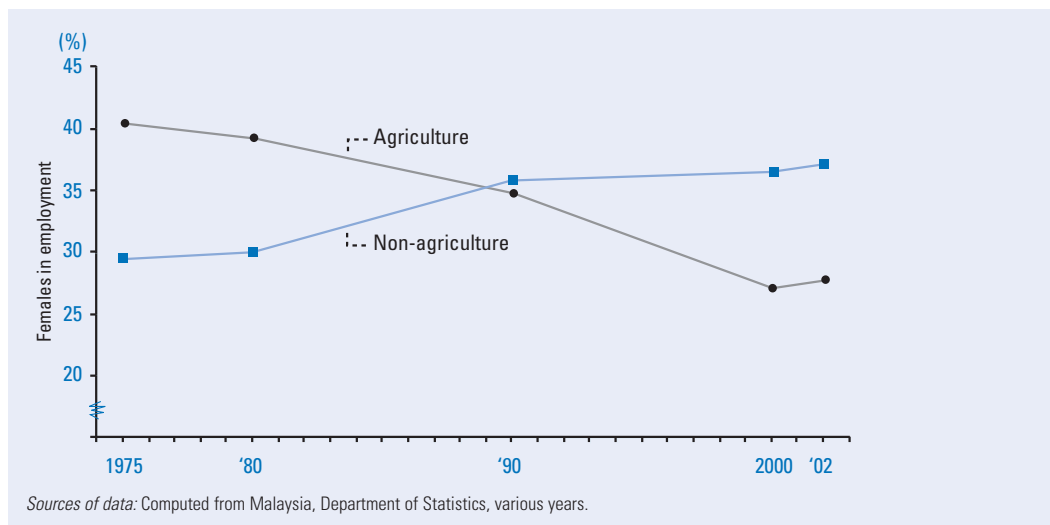
Category	1975*	1980	1990	2000	2002
Labour force distribution, ages 15–64 (%)					
Males	65	66	67	65	64
Females	35	34	33	35	36
Both sexes ('000s)	3,823	5,064	7,042	9,616	9,886
Labour force participation rates, ages 15–64 (%)					
Males	86.0	85.9	85.3	83.1	81.5
Females	47.3	44.1	47.8	47.2	46.7
Both sexes ('000s)	66.7	64.9	66.5	65.4	64.4

Sources of data: Malaysia, Department of Statistics, *Labour Force Survey Report*, various years.

* Data for 1975 are for Peninsular Malaysia.

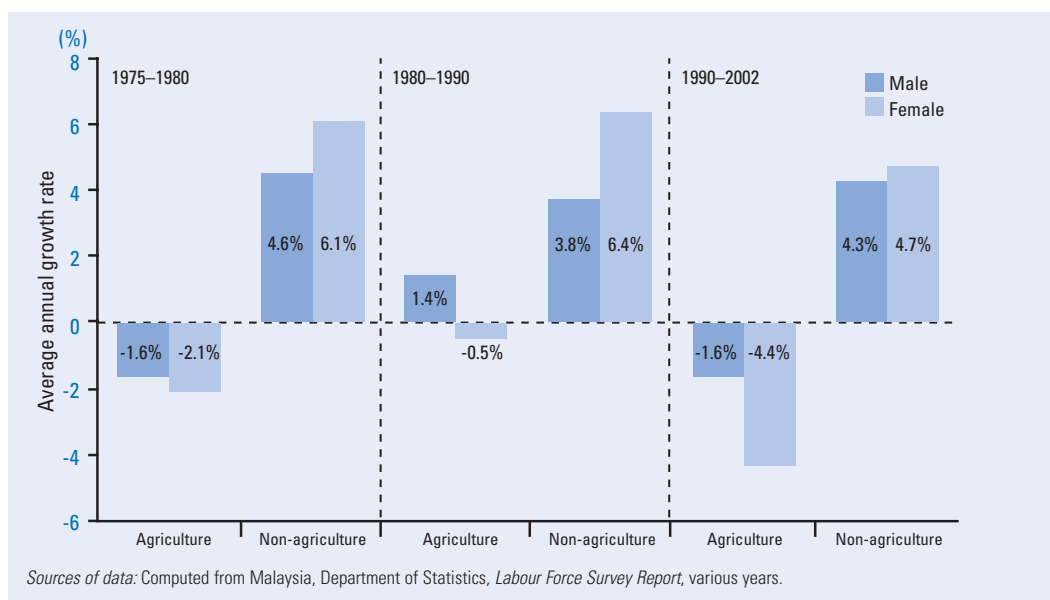
Despite relatively constant female labour force participation rates, there has been a considerable shift in the nature of female employment. An ever-decreasing proportion of women are engaged in the agricultural sector (Figure 3.5). Thus the share of Malaysian women employed in agricultural activities fell from 41 per cent in 1975 to just 28 per cent in 2002. Conversely, their share in non-farm employment, mainly industry and services, rose from 29 per cent to 37 per cent over the corresponding period.

Figure 3.5 Females in Employment by Agriculture and Non-agriculture Sector, Malaysia, 1975–2002



The different sectoral employment growth rates of women and men reflect the declining female share of employment in agriculture and the rising female employment share in the non-agriculture sector. Throughout the period 1975–2002, women have increasingly left employment in agriculture (Figure 3.6). By contrast, there has been a rapid growth in female employment in non-farm activities over the corresponding period, a growth that was especially marked during the decade of 1980–90 when the expansion of the manufacturing sector was at its peak.

Figure 3.6 Average Annual Growth Rate of Employment in Agriculture and Non-Agriculture Sector, Malaysia, Selected Periods



In general terms, the evolution of female employment has followed the structural changes in the Malaysian economy. As the economy has shifted from its reliance on agriculture to a greater emphasis on industry and services, so too has the distribution of employment shifted from the primary, agricultural sector to the secondary, industrial sector. Within sectors, the female proportion in manufacturing grew rapidly during the decade 1980–90, but has since declined (Table 3.2). Since 1990, there has been a particularly rapid increase in the share of female employment in both the wholesale and retail trade, hotels, and restaurants sector and the financial services sector (Table 3.2).

Table 3.2 Share of Females in Employed Population Within Each Industrial Sector, Malaysia, 1975–2000 (%)

Sector	1975*	1980	1990	2000
Agriculture, Forestry, Livestock & Fishing	40.5	39.3	35.0	27.0
Mining & Quarrying	12.9	12.5	13.6	11.7
Manufacturing	38.8	38.3	46.8	41.3
Construction	6.6	5.9	4.2	6.2
Electricity, Gas & Water	3.3	4.9	5.8	7.1
Transport, Storage & Communication	5.8	7.7	12.3	12.9
Wholesale & Retail Trade, Hotel & Restaurants	26.6	27.7	39.1	39.6
Finance, Insurance, Real Estate & Business Services		29.7	34.9	40.2
Other services	37.5	39.2	38.5	45.6
TOTAL	34.1	33.5	35.5	34.7

Sources of data: Malaysia, Department of Statistics, Computed from *Labour Force Survey Report*, various years.

* Data for 1975 are for Peninsular Malaysia.

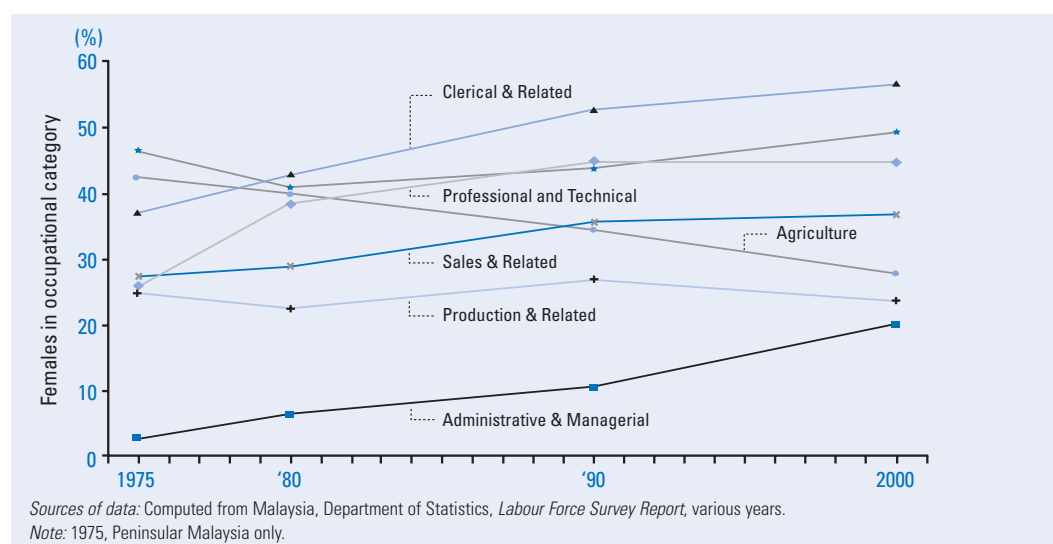
In tandem with the sectoral changes of the economy, the composition of employed females by occupation has also changed markedly (Table 3.3). By 2000, just 15 per cent of employed women had agricultural occupations, compared with 43 per cent in 1980. By contrast, the proportions in clerical and service occupations were 35 per cent in 2000, compared with 22 per cent in 1980. Among employed females, significantly higher proportions are currently in clerical and service occupations, as compared with employed males (Table 3.3). If the professional, managerial, and clerical occupations are combined, as the three groups of occupation that tend to employ the better educated workers, the proportion of females in these occupational categories rose sharply between 1980 and 2000, whereas the proportion of males did not.

Over time, although women are least represented in administrative and managerial occupations, this group of female workers is on an increasing trend (Figure 3.7). Similar trends can be seen in almost all occupational categories with the exception of the agriculture and production and related occupational categories.

Table 3.3 Distribution of Employed Females and Males of Total Female and Male Labour Force by Occupational Category, Malaysia, 1980 and 2000 (%)

Occupational Category	1980		2000	
	Females	Males	Females	Males
Professional, Technical & Related Workers	7.7	6.2	13.5	8.9
Administrative & Managerial Workers	0.4	2.6	2.2	4.7
Clerical & Related Workers	10.7	7.2	17.5	7.1
Sales & Related Workers	8.4	10.4	12.1	11.1
Service Workers	11.1	8.1	17.4	9.5
Agriculture Workers	42.5	32.4	14.8	20.4
Production & Related Workers	19.2	33.2	22.6	38.4
All categories	100	100	100	100

Sources of data: Computed from Malaysia, Department of Statistics, *Labour Force Survey Report*, various years.

Figure 3.7 Share of Females in Employed Population by Occupational Category, Malaysia, 1975–2000

From Table 3.4, the vast majority of women workers in the professional and technical occupational category are in the teaching profession. The next largest group of women workers in this category are the assistant engineers and nurses. By contrast, significantly fewer women are employed as surveyors, engineers, and scientists. There is thus considerable scope for women to be more widely represented in the higher paid professional occupations.

Gender equality in political life

The representation of women in legislative bodies is one of the indicators of society's commitment to women's empowerment in MDG 3. Strong participation of women in

political decision-making processes can enhance women's empowerment and promote gender equality. Since Independence, the number of female candidates elected to political decision-making bodies in Malaysia has increased, but only at a moderate rate. In 1990, just 5 per cent of parliamentarians were women (Table 3.5). This proportion doubled to 10 per cent in 1999 but remained at that level in the 2004 general election. While the proportion of women elected to state assemblies almost doubled between 1990 and 2004, their representation remains low at just 6 per cent. By contrast, in the Senate where members are appointed to represent various groups in the society, the proportion of female senators has increased sharply from 18 per cent in 1990 to 33 per cent in 2004.

Table 3.4 Share of Females in Employed Population in Each Group of the Professional and Technical Occupational Category, Malaysia, 2000 (%)

Professional Group	Number ('000s)	Female (%)
Engineers	57.9	10.4
Asst. Engineers	162.2	8.5
Scientists	18.9	20.9
Doctors	18.4	33.3
Architects	7.8	32.1
Surveyors	4.4	1.2
Economists	0.9	31.5
Lawyers	16.5	39.3
Accountants	35.1	48.3
Nurses	54.4	96.7
Teachers	390.7	62.1
TOTAL	767.3	45.8

Source of data: Malaysia, Department of Statistics, 2000a.

Table 3.5 Representation of Women and Men in Political Life, Malaysia, 1990–2004

	1990	1995	1999	2004
Elected Members of Parliament				
Females	9	13	20	22
Males	162	166	173	197
TOTAL	171	179	193	219
Female (%)	5.3	7.3	10.4	10.1
Appointed Members of House of Senate				
Females	10	11	14	19
Males	45	57	48	38
TOTAL	55	68	62	57
Female (%)	18.2	16.2	22.6	33.0
Elected Members of State Legislative Assembly				
Females	15	24	28	36
Males	428	474	443	531
TOTAL	443	498	504	567
Female (%)	3.4	4.8	5.6	6.3

Sources of data: Malaysian Election Commission, various years.

Enabling environment

Malaysian women's rights as citizens to participate in the political and administrative aspects of the nation are recognized and safeguarded in the Federal Constitution. Malaysian women have had the right to vote and to hold office since Independence. Table 3.6 provides an overview of relevant strategies as well as major legislation and programmes related to women's development.

The success of women-related policies is dependent on the political will and leadership of the government, as well as decision makers in the private sector, to make conscious efforts to effect change. Malaysia's successes in promoting gender equality and empowering women have involved many parties, both local and international. They include the government, private sector, civil society, and international agencies, especially within the United Nations system. During the preparatory process in the formulation of gender-related strategies in the national development plans, the views of these various partners are considered. The continued commitment to promote gender equality and empower women is evidenced by the announcement made by the government in 2004 that 30 per cent of decision making positions in the public sector are to be filled by women.

Women-related policies

Employment options. As Malaysia's economy moved from dependence on the export of primary commodities to import-substitution and export-oriented industrialization, which began in the 1970s and 1980s, more and more women were employed in labour-intensive manufacturing industries. These industries, typically located in export-processing zones, focused mainly on electronics and garments. Female labour was considered more suitable for such work that frequently required keen eyesight and manual dexterity. While, with hindsight, the working conditions at these factories were often less than optimal, they provided many women with what was often their first opportunity for paid employment, and encouraged the migration of rural women, especially Bumiputera, to urban areas.

National policies and plans. Gender as a development focus was first mentioned in the Third Malaysia Plan (1976–80), which encouraged the active participation of women in development and their contribution to the economy. Later five-year development plans gave greater prominence to gender issues and since the Sixth Malaysia Plan (1991–5), a full chapter has been devoted to policies and programmes that promote women in development.

The National Policy for Women (NPW), formulated in 1989, was a major initiative affecting gender equality and women's empowerment in Malaysia (Box 3.2). Its contents were incorporated into the Sixth Malaysia Plan and have formed the basis for many of the subsequent policies relating to women in development. The NPW's primary objectives are to ensure equitable sharing in the acquisition of resources and information, opportunities and benefits of development for men and women; to integrate

women in all sectors of national development in accordance with their capabilities and needs in order to eradicate poverty, ignorance and illiteracy, and ensure a peaceful, harmonious, and prosperous nation.

Box 3.2
MALAYSIA'S NATIONAL POLICY FOR WOMEN AND THE ACTION PLAN FOR THE ADVANCEMENT OF WOMEN

The close of the 1980s saw a major policy advance for women in development in Malaysia. This was the adoption of the National Policy for Women (NPW) in 1989, reflecting the Malaysian government's realization that women were unable to participate equally with men in the national development process, as there were constraints on their full integration into development.

Following the Declaration of the Women's Decade (1975–85), which added impetus to ongoing efforts to integrate and increase the role of women in the development process, and Malaysia's adoption of the Forward Looking Strategies of the First United Nations Conference on Women in Mexico in 1975 and the Second United Nations Meeting in 1980, both of which deliberated on the need to mainstream women into development process, the NPW was adopted in December 1989. A visible impact of the NPW was its inclusion of a chapter on Women in Development in the Sixth Malaysia Plan (1991–5). The chapter identifies constraints on women's participation and states that concerted efforts will be made to progressively reduce existing constraints and facilitate the assimilation of women into the mainstream of social and economic activities.

In support of this position, the primary objectives of the NPW are:

- to ensure equitable sharing in the acquisition of resources and information, opportunities and benefits of development for men and women. The objectives of equality and justice must be made the essence of development policies which must be people-oriented so that women, who constitute half of the nation's population, can contribute and realize their potential to the optimum; and
- to integrate women in all sectors of national development in accordance with their capabilities and needs in order to enhance the quality of life, eradicate poverty, ignorance and illiteracy, and ensure a peaceful, harmonious, and prosperous nation

These objectives provide the basis for integrating women's contributions in all national development efforts, with the aim of focusing on areas where support facilities have not yet

been adequately provided, and the role of women not yet fully acknowledged. The main areas covered in the NPW are health, education and training, law, employment, power sharing, sports, media, religion, and culture.

Following the NPW, an Action Plan for the Advancement of Women (APAW) was formulated in 1992 to operationalize the NPW. The Plan was reformulated, subsequent to the Beijing Conference, to integrate strategies and programmes contained in the Platform for Action. Under the APAW, various strategies and programmes were identified for implementation by government agencies, the private sector, and civil society. The Plan outlined critical areas of concern and proposed the following:

- strengthen the national machinery for the advancement of women
- raise public awareness and sensitize the government bureaucracy towards issues related to women
- reorientate the institutional process for planning, implementation, and monitoring of government policies and programmes to accommodate women's concerns
- activate NGOs to increase the efficiency and effectiveness of socio-economic programmes, and
- redress problems of discrimination and promote affirmative action for the advancement of women in various fields.

The progress in the implementation of the Plan is monitored by the Women's Development Department, a key department primarily responsible for integrating gender issues in development planning and policy formulation under the Ministry of Women, Family and Community Development. The process is undertaken through an Inter-Ministerial Coordinating Committee.

The NPW and the Action Plan are reviewed on a regular basis to ensure that women are provided with the necessary skills and knowledge to enhance their participation in and contribution to the social and economic development of the nation. Emphasis is also given to further improving and strengthening the national machinery for the advancement of women and ensuring greater coordination and collaboration in the implementation of activities for women.

Table 3.6 Overview of Women's Development, Malaysia, 1971–2010

1971–90	1991–2000	2001–10
New Economic Policy (NEP) OPP1	National Development Policy (NDP) OPP2	National Vision Policy (NVP) OPP3
Second Malaysia Plan (1971–5) Third Malaysia Plan (1976–80) Fourth Malaysia Plan (1981–5) Fifth Malaysia Plan (1986–90)	Sixth Malaysia Plan (1991–5) Seventh Malaysia Plan (1996–2000)	Eighth Malaysia Plan (2001–5)
Strategies Related to Women's Development		
Crucial role of women reflected in development plans (first started in the Fifth Malaysia Plan). Gender-sensitive policies and programmes to promote gender equality and women empowerment.	Identification of constraints to women's participation. Efforts to reduce existing constraints and facilitate the assimilation of women into the mainstream of social and economic activities.	Opportunities in employment, business, and social activities will be made available without gender bias. Greater access to training and retraining to promote employment opportunities and greater occupational mobility. Information pertaining to the labour market and opportunities for advancement in education and business to be made more accessible through ICT. Participation of women in the labour market to be enhanced through use of flexible working hours, provision of crèches at workplaces, and working from home.
Major Legislation and Programmes Related to Women's Development		
Legislation Women and Girls Protection Act 1973. Marriage and Divorce Act 1976. Income Tax Act 1967 (Amended 1978). Programmes National Advisory Council on the Integration of Women in Development (NACIWID) (1976). National policy for women formulated (1989).	Legislation Women and Girls Protection Act 1973 (Amended 1987). Employment Act 1955 (Amended in 1998 to encourage greater labour force participation among women). Domestic Violent Act 1994. Code of Ethics for Sexual Harassment Prevention (1999). Guardianship of Infants Act 1961 (Amended 1999). Programmes Women's Affairs Secretariat (HAWA) established (1983). Action Plan for the Advancement of Women formulated (1992).	Programmes Women Entrepreneurs Fund established. Various education and training programmes carried out—business management, marketing, sales, packaging, and labelling. Courses in good manufacturing practices and business networking conducted. <i>InfoDesa</i> programme set up to provide basic IT training to women in rural areas. A campaign entitled 'Women Against Violence' (WAVe) organized to raise awareness on domestic violence. <i>Nur Bestari</i> , a training programme to enhance the capacity of women, implemented.

Administrative and institutional framework. The implementation of policies, strategies, and programmes requires supportive institutional and administrative machinery. Significant progress has been made in identifying and establishing an appropriate machinery to plan, coordinate, implement, and monitor development programmes for women.

Ministry of Women, Family and Community Development (formerly known as the Ministry of Women and Family Development). The establishment of this ministry in February 2001 marks the culmination of efforts to assign women's development issues

to a specialized ministry. The ministry's mission is to mainstream women into national development and to strengthen the family system. To realize its vision, the ministry has adopted a two-pronged strategy, firstly it assists women and families facing pressing day-to-day problems and secondly, it identifies and implements developmental strategies that will benefit women. The major thrust in assisting women would be to disseminate information and coordinate support services provided to women and families in need, both by the public sector and NGOs.

The ministry also ensures that developmental strategies integrate gender and family perspectives into policy formulation. It also undertakes to enhance opportunities for women to improve their socio-economic status through capacity-building, motivational and entrepreneurship programmes. To improve planning, monitoring, and evaluation of the progress of women, the ministry has set up a gender disaggregated database that will assist its Research and Development Division to be more effective as a national clearing house of information on women. As data form an integral part of the gender mainstreaming effort, the ministry is working with the government machinery to ensure that all data collected are disaggregated by sex.

The National Advisory Council on the Integration of Women in Development (NACIWID) was formed in 1976 in accordance with the UN Resolution, the Declaration of the Women's Decade, (1975–85) on integrating women in the mainstream of the development process. It was set up as a multisectoral body comprising representatives from the government and non-government bodies. It functions as the main coordinating, consultative, and advisory body on women's affairs through which women's issues are channelled to policy makers. Following the establishment of NACIWID, the Women's Affairs Secretariat (HAWA) was set up in the Prime Minister's Department in 1982 to administer capacity-development programmes and projects for women, gender sensitization and awareness programmes, and planning courses for policy makers and implementers. HAWA expanded and subsequently grew into a full-fledged department that came under the purview of the Ministry of Women, Family and Community Development when it was established in 2001.

National Council of Women's Organizations (NCWO). Since 1960, the NCWO, a non-political, non-religious, and non-communal organization, has functioned as an umbrella body for non-governmental women's organizations. One of the first tasks of the NCWO was to advocate the establishment of a Women's Bureau in 1964 that would seek to improve women's status in terms of equality of opportunities for education and access to legal aid. To date, the NCWO has more than 200 welfare, political, and labour organizations affiliated to it. The NCWO's main role is to be a consultative and advisory body to women's organizations with the aim of bringing them together to raise the standard of living of women.

International Commitments for the Advancement of Women. In 1975, the UN declared a Women's Decade which was to take effect from 1976 to 1985. The main objective of this declaration was to recognize the value of the role of women and to upgrade the status of women in society. In support of the Women's Decade, Malaysia formed national institutions and allocated funds to enhance the role and status of women in national development.

In 1995, the government accepted the Convention on the Elimination of All Forms of Discrimination Against Women. Malaysia's participation at the Fourth World Conference on Women in Beijing in 1995, and its adoption of the Beijing Declaration and the Platform for Action mirrored the government's commitment to advance the status of women in the country.

Other organizations. Various major organizations implement programmes for the development of women. They include the Community Development Department (KEMAS), National Population and Family Development Board (NPFDB), Department of Agriculture (DOA), and the Federal Land Development Authority (FELDA). While KEMAS focuses on women as part of family development, NPFDB and the Federation of Family Planning Associations, Malaysia (FFPAM) focus on population and family development programmes. DOA and FELDA carry out agriculture-related programmes that enhance the financial position of families for the benefit of women.

In 1995, Malaysia was elected Chairperson of the Regional Steering Committee on Economic Advancement of Rural and Island Women for Asia Pacific for three years. The Steering Committee was responsible for, among other things, the preparation and implementation of specific regional and subregional activities, such as training for rural women, as well as research and exchange of information on rural women.

Budget allocations

With the specific integration of women issues into the five-year national development plans, an allocation of RM20 million was made under the Sixth Malaysia Plan (1991–5), to support programmes and projects to be implemented by HAWA. In the National Budget of 1999, RM50 million was allocated to HAWA. In addition, since 1997, the government has been allocating RM20 million annually to NGOs to carry out projects and programmes for women in line with the government's Vision 2020. In the National Budget of 2002, RM59 million was allocated to finance programmes: this was increased to RM105.4 million in 2004. The Ministry of Women and Family Development, was allocated RM59 million in 2002; this was increased by 68 per cent to RM99.1 million in 2003.

Measures have been undertaken to facilitate the involvement of women in business through the provision of easy access to capital. The Women Entrepreneurs' Fund, for example, was established in 1998 with an allocation of RM10 million. Another RM10 million has been allocated to this Fund under the Eighth Malaysia Plan (2001–5). In addition, various special assistance schemes for women entrepreneurs are available under the Small and Medium Industries Development Corporation (SMIDEC) such as Industrial Technical Assistance Fund (ITAF), Financial Package for SMIs (PAKSI) and E-Commerce. From August 1999 until April 2003, a total of RM7.9 million was disbursed.

In order to encourage more women to become entrepreneurs and to upgrade their skills, the Special Assistance Scheme for Women Entrepreneurs was reviewed and expanded to be more flexible and easily accessible. Under this scheme, assistance was provided for technology acquisition or upgrading, relocation of businesses, equipment purchase and training. Companies that are qualified to obtain assistance under this scheme must have a minimum of 51 per cent equity being held by women. In instances

where women do not hold the majority equity, the largest single shareholder has to be a woman or where the managing director or the chief executive officer is a woman, she has to own a minimum equity share of 10 per cent. Special preference is given to companies that are involved in the manufacturing and services sectors.

Thus far, a total of 21 companies have benefited from this scheme and successfully obtained approval for the purchase of high-technology equipment. In addition, soft loans were also provided to assist companies or enterprises owned and operated by women in modernizing and automating their operations. In this regard, both existing as well as start-up companies are eligible to apply for project, fixed assets, and working capital financing. A total of 58 companies have been successful in obtaining soft loans through this programme.

In an effort to further assist women to become entrepreneurs, various training courses have been offered. These include courses in business management, marketing, sales, packaging and labelling. In addition, courses in good manufacturing practices and business networking are conducted for women who are interested in venturing in the manufacturing sector.

To supplement the income of women, embroidery and handicraft workshops were established and training provided to assist women in setting up small businesses. A total of 362,139 women, including single mothers, have benefited from these programmes. In addition, the Micro-Credit Scheme of *Bank Simpanan Nasional* (BSN) was launched to provide training and guidance to new women entrepreneurs. A total of 1,500 women have benefited from this scheme.

Gender budgeting. To mainstream a gender perspective into the national budget, a pilot project of Gender Budget Analysis has been introduced in five key ministries, namely the Ministry of Health, Ministry of Rural and Regional Development, Ministry of Education, Ministry of Higher Education, and Ministry of Human Resources. Gender budget analysis will create awareness of gender perspectives in policies and budgets by taking into account the differences in status, role, and contribution of men and women. Its objective is to cope with the different demands of women and men, so that their respective potential can be realized. The focus of gender budget analysis is not merely on budgets. It is an analysis of policies and provides input to government policies and programmes. A Steering Committee, chaired by the Secretary-General of the Ministry of Women, Family and Community Development, was set up to monitor and co-ordinate the implementation of the pilot project (Box 3.3).

Box 3.3 NATIONAL BUDGETING: MAINSTREAMING GENDER ANALYSIS

The Ministry of Women, Family and Community Development, in partnership with UNDP, launched a pilot project on mainstreaming gender analysis in national budgets in July 2003 aimed at incorporating a gender perspective into the existing national budget. The programme will build capacity and provide support to the four pilot ministries of the Ministry of Human Resources, Ministry of Education, Ministry of Health, and Ministry of Rural and Regional Development. The project is implemented in phases with the ultimate objective of operationalizing a gender-sensitive national budget. It will build on the existing budget format and guidelines to ensure that gender issues are incorporated into both the operating and development budgets. It will also ensure that gender analysis becomes part of the existing results-oriented budget format.

Expected impact

- A report on budget submission format for the operating and development budget that provides for gender analysis with gender outputs and outcomes
- Capacity building and training in a number of pilot ministries, Ministry of Women, Family and Community Development, key implementing agencies, and sectoral gender experts.

Development of training programmes and materials for government officials on gender budget approach.

- On advocacy, the gender budget approach will be promoted to interested civil society stakeholders, the output of pilot projects will be launched, and the report will be published and distributed to share best practices within and outside Malaysia.

Status of the project

The project is ongoing and is expected to be completed in late 2004. A Gender Budget Analysis Workshop was held in January 2004 to provide comprehensive training to officials in the pilot ministries in analysing the operating and development budget. Representatives of pioneer ministries, consultative groups, and central economic agencies participated. Further workshops will be held again in the third quarter of 2004 to train more officials, in particular, trainers from the National Institute of Public Administration and the Ministry of Finance, to ensure sustainability of the project. As a start, all pioneer ministries will take the gender perspective into account when evaluating the 2005 National Budget and formulating the development budget for the Ninth Malaysia Plan (2006-10).

Programmes

Measures to promote gender equality and the empowering of women can be categorized into programmes to improve the political and legal status of women; increase their access to employment, education, and health opportunities; and improve the infrastructure to ensure that women are mainstreamed into the development process. The specific efforts include programmes to review laws affecting women; improve health care, education, and training; and improve the national machinery for incorporating women in development.

Reviewing laws affecting women

Employment rights. To provide a more conducive working environment for women, a number of new laws as well as amendments to existing laws have been made. At the workplace, women have had to overcome a number of constraints to achieve equal status with men. Women were admitted into the Malayan Civil Service, now known as

the Administrative and Diplomatic Service from 1964. Prior to 1966, women civil servants were not accorded permanent status and appointments of married women were on a monthly basis. A woman was also not eligible for pension even if she was appointed to an established post. In the early 1960s, women's groups, led by the Women Teachers' Union, began to lobby for equity at work. The government finally adopted the principle of equal pay in 1967 and in 1971, permanent employment tenure was accorded to women employees.

The Employment Act 1955, a major law which regulates all labour relations, was amended in 1998, providing, among others, flexible working hours. Women in the public sector were also accorded maternity leave up to 60 days (from 42 days) for up to a maximum of five children. In 2003, paternity leave was extended from three to seven days.

The Income Tax Act 1967 was amended in 1971 to allow women wage earners to elect for separate tax assessments, unless they chose not to be assessed separately. In addition, provisions were also made for tax deductions to be provided to employers for the purpose of establishing childcare centres near or at the workplace.

In 1999, the government launched the Code of Practice on the Prevention and Eradication of Sexual Harassment at the workplace. The Code contains guidelines to employers on the establishment and implementation of in-house preventive and redress mechanisms to prevent sexual harassment. Prior to this, women workers who faced sexual harassment at the workplace had no means of recourse under law.

Economic protection. To ensure the economic protection of women, the Pension Act was amended to allow widows of workers in the public sector to receive pensions even after they have remarried. The Land Act 1960 was also amended to entitle both husband and wife to have rights to the land in a group village development scheme like FELDA, thereby providing security to women, who have worked on the land alongside their men.

Guardianship rights. The Guardianship of Infants Act 1961 was amended in 1975 to allow both parents to be the legal guardian; previously, the law only recognized the father as the legal custodian of a minor. In 2000, the law was subsequently amended to enable mothers to sign all documents involving their under-aged children.

Protection against violence. An important legal landmark for women in Malaysia was the Domestic Violence Act 1994. What started off as a campaign to raise public awareness on violence against women in 1985 by the Association of Women Lawyers in Malaysia finally culminated a decade later in legislation which allowed for cases of domestic violence to be dealt with as criminal offences with appropriate penalties. To date, support personnel such as police and hospital staff dealing with abuse cases are being trained. One-stop crisis centres have also been set up in a number of government hospitals with the cooperation of women NGOs.

Health care for women

Women's health, in particular their reproductive health (including maternity care), has long been given priority, especially in the rural health network of clinics. The rural health service infrastructure has provided a comprehensive range of services and information for women, with a special focus on maternal and child health services. The provision of maternal health care facilities and services caters even to the more remote and disadvantaged groups. The ready access to family planning services has enabled women to choose freely the number and spacing of their children.

Health care for women has now been expanded beyond health concerns of women in the reproductive age to include broader aspects, such as early detection of cancer, menopause, health needs of working women, and environmental issues affecting women. In addition, gender-based programmes targeting women and children, in particular the Prevention of Mother-to-Child Transmission of HIV Programme, has improved the chances of HIV-positive mothers delivering healthy babies.

Gender analysis training and sensitization

Policy makers and programme implementers. Gender-sensitization training and programmes have been provided to government officers since 1990 to ensure that women are mainstreamed into development. The first gender-sensitization training was held in 1990 with the support of the Asian Development Bank. This was followed by a number of ad-hoc courses organized by HAWA for various groups of government officers at all levels of seniority. Today, the National Institute of Public Administration (INTAN), a training institute that provides training for all government officials, integrates gender perspectives into all training course modules and provides specific gender-sensitization and gender-analysis courses.

In addition, gender-awareness training today incorporates religious perspectives so as to further align it with religious beliefs. A gender expert roll has been prepared by the Ministry of Women, Family and Community Development as a reference to trainers in both public and private institutions that intend to include gender-analysis and gender-sensitization training in their courses.

Law enforcers. As violence against women increases, there is a necessity to create gender-sensitive officers of the law such as police officers and other enforcement officers. Progress has been evident in this regard with gender-sensitization courses incorporated into their training. In 2002, for example, the Judicial and Legal Training Institute started introducing gender-sensitization courses in its modules.

Bridging the digital divide

Efforts have been made to improve women's access to information and communications technology (ICT), as well as to bridge the digital divide between women and men. An ongoing Technical Working Group on Women and ICT was established to design strategies and programmes on ICT for women aimed primarily at rural women and urban poor women, single mothers, disabled and aged women, as well as women who are involved in small and medium-sized enterprises (SMEs).

Insights gained

Women's central role in development

Malaysia has acknowledged that women, who make up half the population, are central to development. Women form a distinct and important group that can have a great impact on development and should not be marginalized. Women, in many instances, have generational impact. In recognition of this, the framework for planning should cater to the specific needs of women while understanding the interaction and interdependent relationship with men's needs. Further, the provision of micro-credit has helped mainstream poor women in development (Box 3.4).

Box 3.4 EMPOWERING POOR WOMEN: AMANAH IKHTIAR MALAYSIA (AIM)

Economic empowerment of poor women through the provision of micro-credit was made possible when *Amanah Ikhtiar Malaysia* (AIM), a non-governmental trust agency, was established in 1987. AIM has emerged as one of the more successful strategies for bringing poor women, in particular those who head households, into the mainstream of economic activities. AIM provides women with the financial means to participate in non-farm activities and to start small businesses; it also affords them access to training programmes to make them more employable. Not only have household incomes increased after assistance from AIM, the project provided evidence that women was credit-worthy with loans achieving an impressive recovery rate of close to 100 per cent. As at June 2003, AIM had provided micro-credits totalling RM863 million to some 490,000 borrowers, 90 per cent of whom were women.

How does AIM work?

- AIM focuses its strategies on highly motivated individuals from hard-core poor households who are committed to earning an honest living and eventually moving out of poverty.
- It provides interest-free loans for income-generating projects, with loans being repaid on a weekly basis.
- Once fully paid, bigger loans are offered, with the first loan normally restricted to RM999 and subsequent loans provided up to a maximum of RM4,898.

- Poor borrowers form themselves into groups of five who in turn guarantee each other's loans.
- Participants undergo a one-week compulsory training of one hour per day to make them understand their rights and obligations to ensure good repayment and to promote self-esteem and self-reliance among the poor.

Why are the programmes effective and efficient?

- Exclusive focus on the very poor—household income of not more than RM251 was a criterion in the period 1986–94 increasing to RM285 (1995–2000) and RM342 since 2001.
- Specialized delivery system—no collateral, guarantor, or legal action; simple procedures; use of group-dynamics support approach in credit delivery and repayment system; small loan and weekly repayments; close supervision; availability of subsequent loan; open conduct of all business at a meeting centre.
- Rigorous practical staff training.
- Supportive national policy framework that precludes political interference.

Challenges

Creative and innovative strategies to deal with the poorest and possibly higher allocations will be necessary if AIM is to continue to play an effective role in accessing and reducing poverty in female-headed poor households.

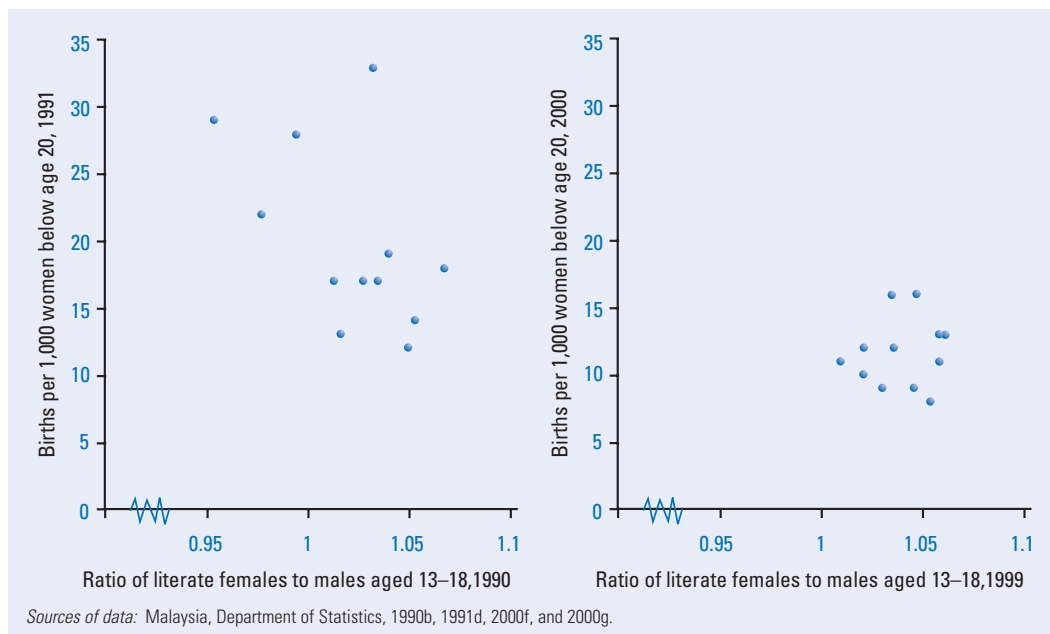
Providing access to education

From the outset of the development process, Malaysia provided access to education for all children. This enabled Malaysia to achieve gender parity, especially at the primary schooling level. As a result of this, Malaysia was also able to close the gender gap in

literacy levels among youths aged 15–24.

With better education, women tend to enter into their first marriage at a later age and have a smaller family size (Figure 3.8). With more education, young women have increasingly been attracted to, and absorbed into, the modern sector labour market.

Figure 3.8 Ratio of Literate Females to Males Aged 13–18 and Adolescent Fertility, Malaysia, 1990 and 1999



Future challenges

A number of constraints continue to inhibit women's active participation in mainstream economic activities. These include women's competing responsibilities at home and at work, the choice of courses at schools, and inadequate access to credit and market information. Some ongoing programmes, as described above, are being implemented to address these constraints, including improving education and training for women, removing discriminatory legislation, and enhancing the legal status of women.

Women's dual roles

Many women are educated and hold permanent jobs, and their monetary contribution ensures a better standard of living for their families. Yet they are expected to be primarily responsible for the reproduction and care of the next generation. The competing responsibilities of family and career restrict women's mobility and participation in the labour market. One way around the conflict for many middle-class working wives has

been to employ maids, usually foreign. But this is likely to be only a temporary solution. In addition, the working environment generally does not adequately cater for women's needs, including their reproductive and family roles.

To enable women to participate more fully in national development, existing policies should be enhanced to enable women to combine work, childcare, and household duties. These include safe, high-quality childcare facilities, along with flexible time arrangements at work. While the government has provided tax incentives for employers to provide crèches for young children of employees, few employers have complied. In addition, men should be encouraged to share family responsibilities.

Although Malaysia has 7.4 million women aged between 15 and 64, only 47 per cent are in the labour force. This problem persists despite the greater number of females compared to males enrolled in secondary and tertiary educational institutions. To address this challenge, the government is promoting "teleworking" and "home office" concepts as an alternative work option for women. This move is likely to increase the proportion of women participating in the labour force.

Professional skills and access to credit

A lack of managerial and professional skills tends to restrict women's progress to the higher professional positions. Greater education and vocational training opportunities for women are needed to encourage their participation in areas that lead to higher-paying jobs in all sectors.

Women generally lack access to credit and market information to sustain their businesses. The government, the corporate sector, and NGOs have an important role to play in providing credit and building a market information network for women.

Protection against violence

There are increasing media and anecdotal reports of gender-based abuses and violence, both physical and psychological. This suggests the need for further studies into this problem to determine its extent and causes.

Leadership role for women

With their increasing level of education, it is expected that women will participate more fully at all levels of decision making. In order to ensure their effective participation, it will be necessary to provide more opportunities for women to take up leadership positions in political, economic, and social fields.

Presently, the Ministry of Women, Family and Community Development is looking into the possibility of establishing a Unit for Women's Leadership under the Social Institute of Malaysia in Kuala Lumpur. The focus of this unit is to provide leadership training and consultations to women who want to contribute effectively to the development process. This unit will also maintain a national network of women from corporations, emerging businesses, NGOs, and the public sector.

Disaggregation of data by sex

In order to better formulate and monitor development plans and policies affecting women, greater attention needs to be given to the disaggregation of data by sex. This applies not only to government agencies but also to researchers and NGOs.



MDG 4

Reduce Child Mortality

Malaysia's infant and child mortality rates have declined dramatically over the past three and a half decades since 1970—even in that year, levels were much lower than those currently prevailing in most of South Asia and sub-Saharan Africa. Current infant and child mortality rates, at 6.2 and 8.6 respectively per 1,000 live births in 2002, are now comparable to those of highly developed countries (Box 4.1).

The improvement of child health and the reduction of child mortality have been national development goals ever since the First Malaysia Plan, and the policy vision of good health has been supported by a range of programmatic interventions. Medical advances, including vaccines and oral rehydration for the treatment of diarrhoea, have been made widely accessible, even in rural areas, through the country's primary health care system. These advances, together with progressively increased access to clean water, improved sanitation, and better child nutrition have been the key determinants. The impact of these factors has been reinforced by other public sector programmes to reduce poverty, increase literacy, and provide modern infrastructure, especially in rural areas.

In Malaysia, health sector programmes have been integrated with other sectoral programmes, in particular, rural development, infrastructure, water and sanitation, housing and agriculture. National development programmes have in turn been enhanced by the development of rural health services that have provided ever greater access to basic child health care. An extensive network of health centres and clinics was supported by trained midwives and other health workers, and delivered through an integrated maternal and child health (MCH) programme. The availability of child health services as an integral part of the MCH and rural health services, including the components of control of communicable diseases, immunization and treatment of diseases, provides for a broad package of interventions, both preventive and curative, that are essential for child health and child mortality reductions.

Trends in infant and child mortality

There has been a huge reduction in child mortality over the past three and a half decades. Malaysia's under-5 mortality rate (U5MR) declined from 57 to 17 per 1,000 live births between 1970 and 1990 and to 9 in 2000 (Table 4.1 and Figure 4.1). This represents a reduction of 85 per cent in three decades. The reduction in infant mortality over the corresponding period was of much the same magnitude.

The MDG target for child mortality is to reduce the level by two-thirds between 1990 and 2015. In Malaysia, the U5MR fell by just under one half between 1990 and 2000 (Table 4.1). Malaysia has thus achieved the low levels of most highly developed countries, and is highly likely to achieve the MDG targets well before 2015.

Box 4.1 INDICATORS FOR MONITORING INFANT AND CHILD MORTALITY

In addition to measuring children's well-being, child health and mortality indicators are key to assessments of a country's overall development. Both the under-5 mortality rate (U5MR) and the infant mortality rate (IMR), two of the three MDG indicators, are sensitive outcome indicators of the development process. Almost all deaths in childhood now occur before the age of 5, and the probability of dying by age 5 is a comparable index across population subgroups.

The *infant mortality* rate is defined here as the number of infants dying before reaching their first birthday per 1,000 live births in a given year. Infant mortality is an important component of under-5 child mortality. Not only does this indicator reflect health conditions, but also and critically, it is a robust and sensitive measure of the social, economic, and environmental conditions in which children (and others) live. One reason for this is that the post-neonatal contribution to infant mortality, that is, deaths after the first

28 days of life, is almost entirely due to exogenous socio-economic and environmental factors.

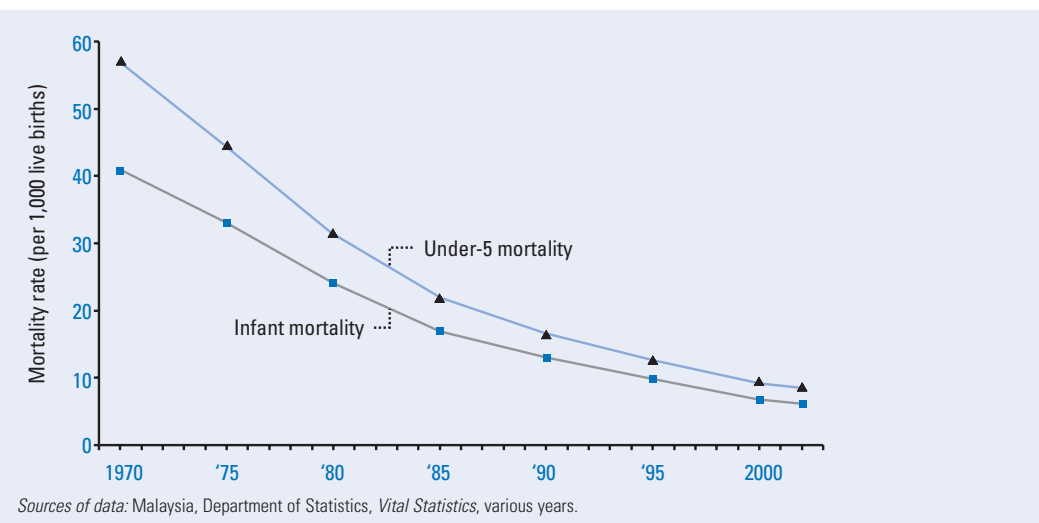
The under-5 mortality rate is the probability (expressed as a rate per 1,000 live births) of a child dying before reaching its fifth birthday. As an indicator, it provides similar insights into a broad range of development factors, and has the added advantage in that it captures almost all mortality of children below age 15.

The *proportion of 1-year-old children immunized against measles*, the third indicator used to monitor the MDG of reducing child mortality, is the percentage of children under 1 year of age who have received at least one dose of measles vaccine. This indicator provides a measure of the coverage and the quality of the child health-care system. Immunization is an essential component for reducing child mortality. Among the vaccine-preventable infectious diseases of childhood, measles is the leading cause of child mortality.

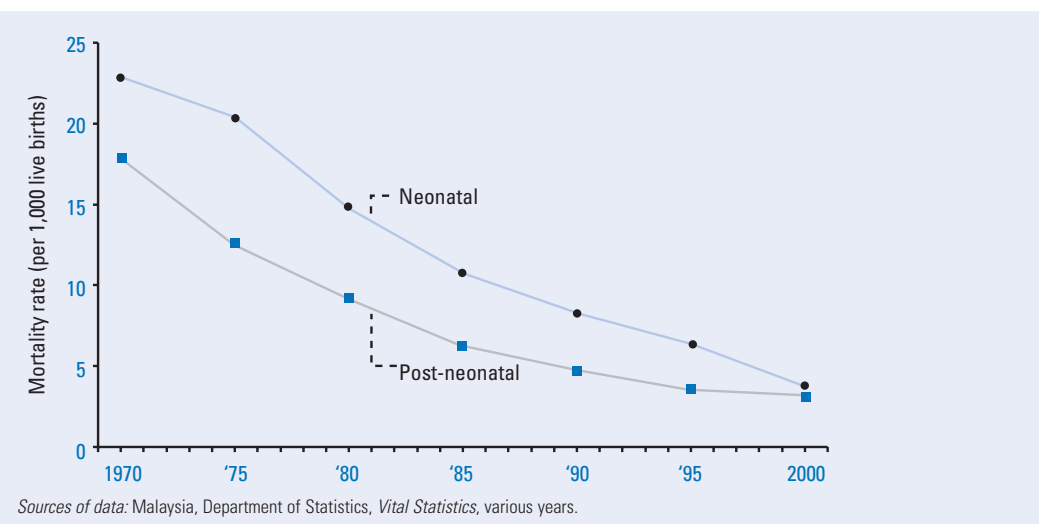
Table 4.1 Infant Mortality and Under-5 Mortality Rates, Malaysia, 1970–2002 (per 1,000 live births)

Year	Infant mortality rate	Under-5 mortality rate	Under-5 mortality (1970 = 100)	Infant mortality (1970 = 100)
1970	40.8	57.1	100	100
1980	24.0	31.4	55	59
1990	13.0	16.6	29	32
2000	6.8	9.4	16	17
2002	6.2	8.6	15	15

Sources of data: Malaysia, Department of Statistics, *Vital Statistics*, various years.

Figure 4.1 Infant and Child Mortality Rates, Malaysia, 1970–2002

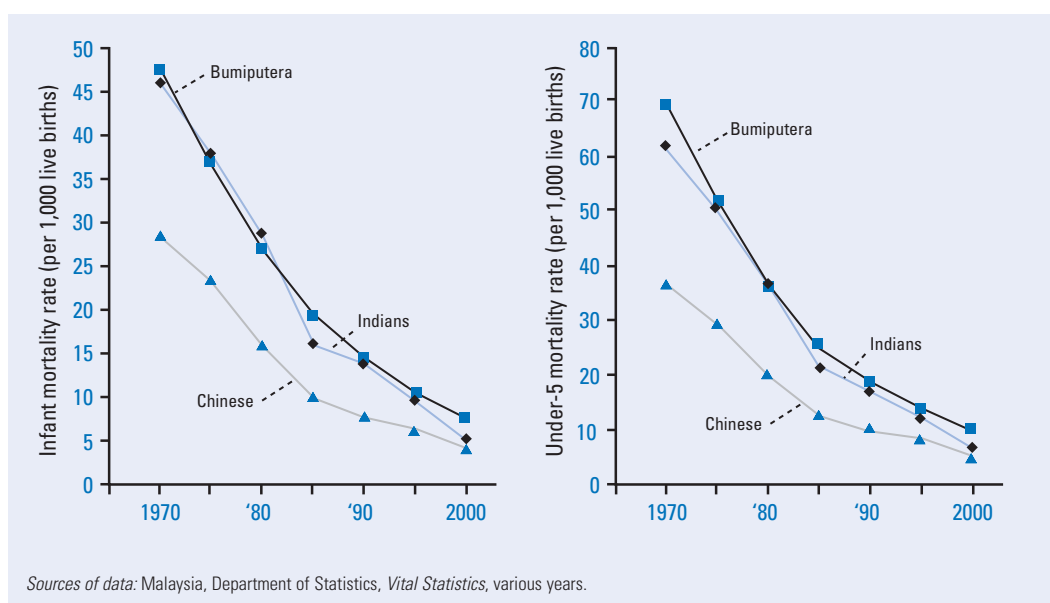
The trends in infant mortality reflect the combined influences of neonatal mortality (deaths of babies in the first 28 days of life) and post-neonatal mortality (deaths after the first 28 days of life). Neonatal deaths stem from a different cause of death pattern than do post-neonatal deaths. The former are closely related to maternal health during pregnancy and to circumstances of birth delivery (place of delivery and whether or not the baby is delivered by a skilled birth attendant). The latter are due largely to socio-economic and environmental factors that lead to the spread of infectious diseases and other poverty-related deaths. In Malaysia, there have been substantial reductions in both of these components of infant mortality, although reductions have been somewhat greater for the neonatal component. Currently, both neonatal and post-neonatal mortality account for roughly the same proportion of infant deaths (Figure 4.2).

Figure 4.2 Post-neonatal and Neonatal Mortality Rates, Malaysia, 1970–2000

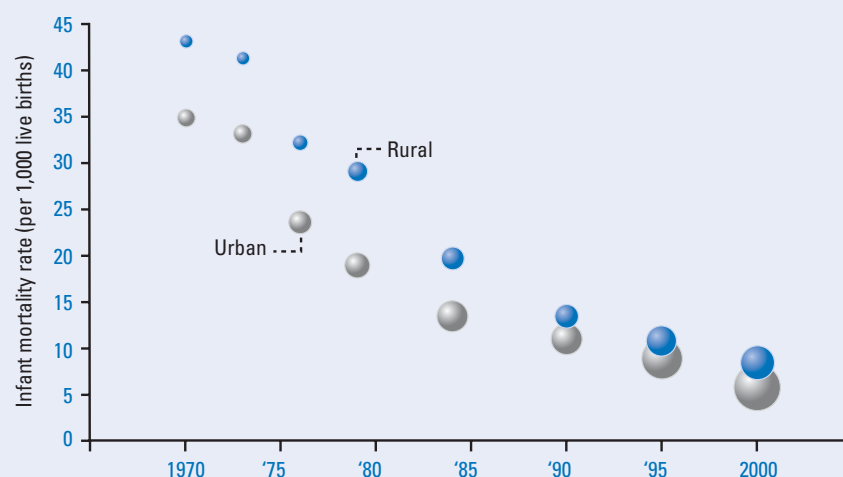
Ethnic and urban-rural differentials

In 1970, there were marked ethnic differentials in child mortality in Malaysia. Thus the level of child mortality of the *Bumiputera* and Indians, at 69.1 and 61.5 per 1,000 live births respectively, compared with a level of 36.6 for the Chinese. These differentials reflected the fact that compared with the other communities, the Chinese were much more concentrated in urban areas, which offered better medical services, and were much less likely to be living in conditions and situations of poverty. However, over the three decades since 1970, there have been spectacular reductions in child mortality for each ethnic group (Figure 4.3). By 2000, ethnic inequities in child mortality had narrowed appreciably.

Figure 4.3 Infant and Child Mortality Rates by Ethnic Group, Malaysia, 1970–2000



The spread of health improvements and broad development to both urban and rural areas is reflected in their respective trends in infant mortality (Figure 4.4). Sharp declines have occurred in both urban and rural infant mortality levels over the period 1970–2000 and absolute differentials have narrowed appreciably.

Figure 4.4 Infant Mortality Rates by Urban and Rural Areas, Malaysia, 1970–2000

Sources of data: Malaysia, Department of Statistics, *Vital Statistics*, various years; Malaysia, Economic Planning Unit, five-year plans, various years.
 Note: The size of the bubble for urban and rural areas indicates mean household income for each year.

Spatial differentials

The spatial pattern of differentials in child mortality in Malaysia relates closely to differentials in levels of development by state; that is, infant mortality rates (IMRs) and U5MRs are lowest for the west coast states and highest for the east coast states (Table 4.2).

Table 4.2 Under-5 Mortality Rates by State, Malaysia, 1970–2000 (per 1,000 live births)

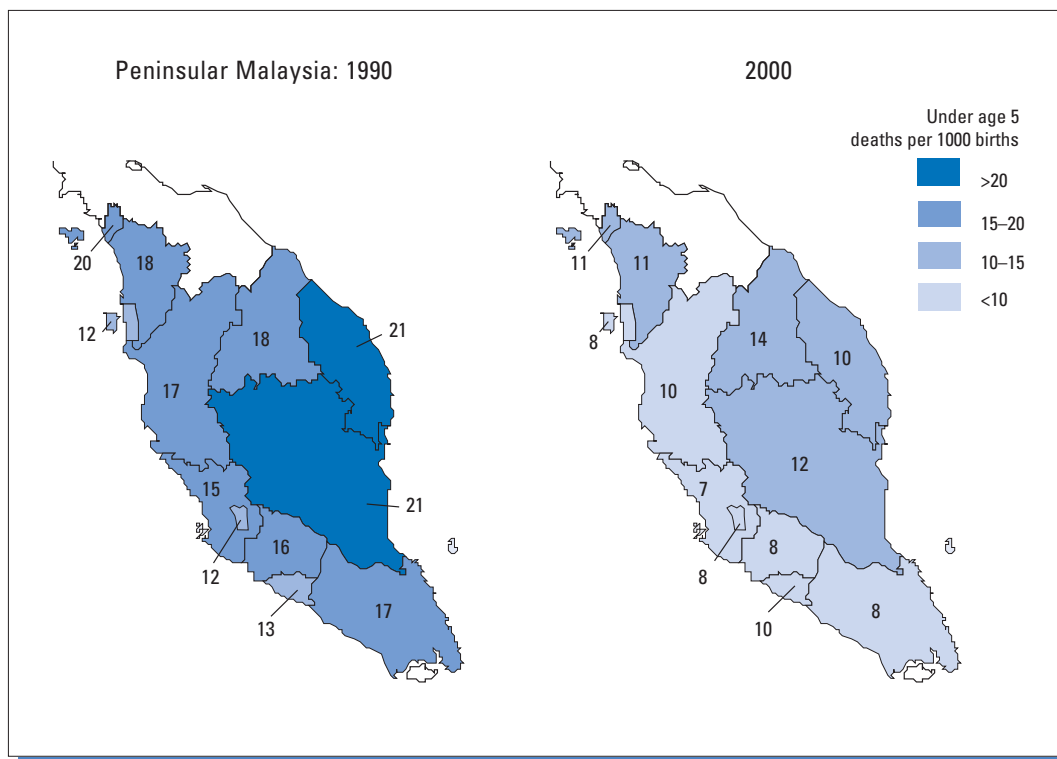
State	1970	1980	1990	2000
Selangor	39	25	15	7.0
Pulau Pinang	47	26	12	7.6
Perlis	47	32	20	11.2
Johor	50	31	17	8.2
Melaka	55	25	13	9.7
Negeri Sembilan	55	29	16	7.7
Kedah	60	38	18	11.4
Perak	60	33	17	9.6
Pahang	64	36	21	11.8
Kelantan	87	41	18	14.4
Terengganu	88	42	21	10.2
Federal Territory Kuala Lumpur	—	16	12	8.2
Malaysia*	57	31	17	9.4

Sources of data: Malaysia, Department of Statistics, *Vital Statistics*, various years.

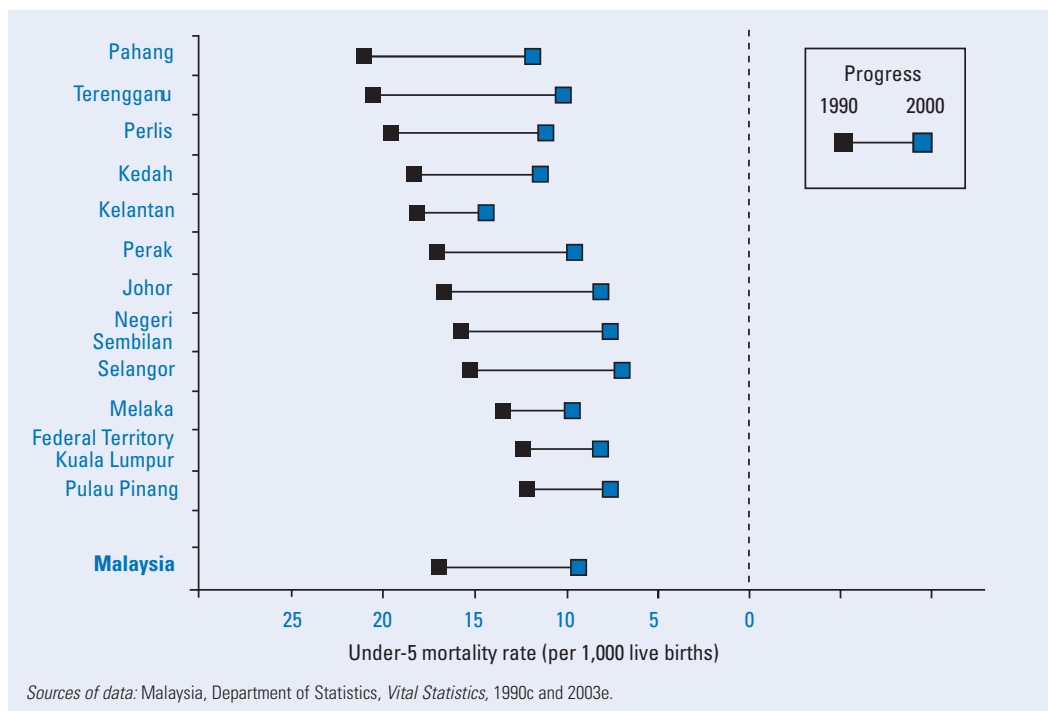
* Because of data problems, no separate estimates are given for Sabah and Sarawak.

However, while spatial differentials in child mortality still persist, all states have benefited from improvements in health services and development programmes. The pattern of improvements over the decade 1990–2000 shows that of the states in Peninsular Malaysia, absolute change was least for states with already low levels in 1990, such as Melaka, Kuala Lumpur, and Pulau Pinang (Map 4.1 and Figure 4.5). Those states with moderate levels in 1990, such as Johor, Negeri Sembilan, and Selangor, had the largest declines. In 2000, Selangor became the state with the lowest level of under-5 mortality with just 7 deaths for every 1,000 births. Child mortality is also around this level in the states of Pulau Pinang, Negeri Sembilan, Johor, and Kuala Lumpur. The north-eastern state of Kelantan stands out as having one of the highest levels of child mortality in 1990 and it made very small gains over the next decade (Figure 4.5). Its child mortality level at 14.4 in 2000 is more than double that of Selangor.

Map 4.1 Child Mortality Rates by State, Peninsular Malaysia, 1990 and 2000



Sources of data: Malaysia, Department of Statistics, *Vital Statistics*, 1990c and 2003e.

Figure 4.5 Child Mortality Rates by State, Malaysia, 1990 and 2000

Evolution of measures to reduce child mortality

The 1970s was the era where testing of the concept of an integrated multi-agency approach was put in to practice through projects such as the Applied Food and Nutrition Programme (AFNP), School Health Programme, and integration of family planning into maternal child health (MCH) services. These initiatives were subsequently integrated into rural health and rural development programmes.

The establishment of the MCH and Health Education Unit of the MOH in 1971, with maternal and child nutrition as one of the major service components, facilitated the implementation of programmes to reduce childhood malnutrition. It was also recognized that improving nutrition status and correcting pregnancy anaemia improved infant survival and prevented low birth weight babies.

The organizational and clinical aspects of the MCH services, which emphasized tools for child growth monitoring, regularizing the immunization schedules for children, and providing for nutrition education in clinics and villages, contributed to reducing child mortality. The first national advocacy campaign for breastfeeding in 1976 was another factor which improved infant survival in the decades to follow.

IMRs and U5MRs declined progressively as urban health facilities, such as hospitals, maternal and child health clinics, and dispensaries, were converted into 'infant relief and welfare centres' which provided health care for infants, and treatment and prevention of serious childhood diseases, such as tuberculosis, anaemia, parasitic and diarrhoeal as well

as nutrition deficiency diseases. Food and vitamin supplements, rolled oats, and powdered milk were distributed to needy infants and children to improve their health and nutritional status which contributed to the decline in infant and child mortality.

The government's pro-poor policies in the 1980s contributed to further reducing infant and child mortality equity gaps. The inclusion of health programmes, particularly MCH, water, sanitation, and control of communicable diseases, complemented the package of services for the poor under the Development Programme for the Hardcore Poor (PPRT).

The Nutrition Rehabilitation Programme, which was specifically undertaken as a pro-poor strategy for treatment of malnourished children under age 5, was another catalyst to improve the overall nutrition status of young children.

Health personnel were retrained in these strategies and efforts were made to reach children in the unserved, underserved, and isolated areas. It was aimed at intensifying coverage of services and giving priority to districts and communities with higher child mortality rates in efforts to reduce state and district disparities. Children under age 5 continued to receive vitamin supplements, and malnourished children, food baskets as a means of improving their nutritional and health status.

The 1990s saw the Convention on the Rights of the Child (1989) and the Declaration of the World Summit for Children (1990) as important driving forces behind the continued priority and increased emphasis on the well-being of children under age 5. Malaysia's First National Plan of Action for Children (1990–2000) led the way for further child development and protection strategies.

With the introduction of Health Information System, Quality Assurance Programme, Perinatal Surveillance, and Action Plan for HIV/AIDS, Malaysia is well placed to further reduce its IMR and U5MR, deaths arising from emerging problems such as home and road traffic accidents, rape, incest, other forms of violence, and HIV, transmitted from mother to children. Other programmes include developments in ICT applications and the upgrading of rural and urban health centres to full-fledged primary care centres offering integrated management of childhood diseases as well as training doctors as Family Medicine Practitioners.

Measles immunization

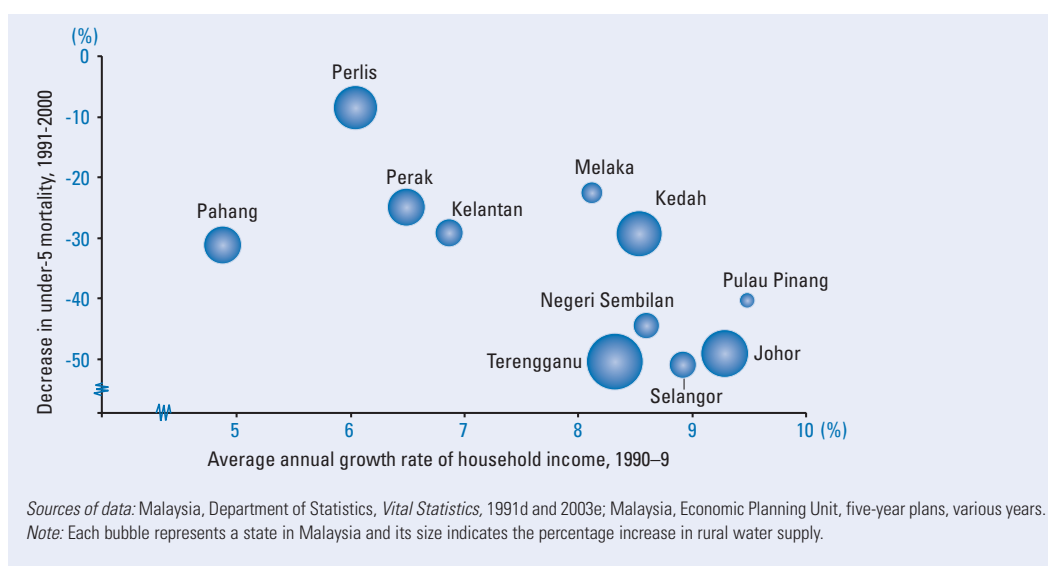
Measles immunization for infants was made a national programme from 1986, as part of the expanded programme of immunization (EPI) for children, following a trial on measles vaccines and its programme implications, conducted by the MOH and supported by the Institute for Medical Research (IMR). Measles vaccine is provided free of charge through government health facilities and is given within a standard immunization schedule specifically to reduce deaths from measles complication of pneumonia in children. Public awareness programmes were necessary in the initial stages for community acceptance of the vaccines, as measles is conceived as a normal childhood infection. The coverage of measles immunization in infants since the start of the national programme in 1986 increased from 70 per cent in 1990 to 88.4 per cent in 2000. This coverage is expected to improve further with the revision of the immunization schedule to provide for MMR vaccine (measles, mumps, and rubella) for infants introduced in 2002.

Enabling environment

Many factors have contributed to reducing child mortality in Malaysia. Declines in infant mortality are due not only to health sector interventions, but also to socio-economic development, including improved education and the empowerment of women through, *inter alia*, the provision of reproductive health services. Women are the main or primary caregivers for children and the family, and thus it is important to improve the knowledge and skills of women in monitoring the growth and development of their children, preventing communicable diseases and malnutrition, and immunizing and giving their children timely professional medical care. The health professionals have displayed high commitment and dedication over the decades with conscious attempts to upgrade health services. In addition, sufficient budgetary allocations were provided to improve infrastructure and ensure programme sustainability.

Broadly, two main groups of factors tend to have a large impact on child mortality. These are, first, general development and growth factors, and second, health intervention programmes. In Figure 4.6, household income has been used to represent the former set of factors, and increases in rural water supply are used to represent the second. The larger the growth in household income, and the larger the increases in rural water supply, the larger is the decline in child mortality.

Figure 4.6 The Larger the Growth in Household Income and Increases in Rural Water Supply, the Larger the Decline in Under-5 Mortality, Malaysia, 1990 and 2000



Multisectoral collaboration and synergies

In addition to macro socio-economic policies which have a bearing on the status of children and women in Malaysia, supportive policies, legislation, and programmes of other agencies and NGOs have supported the call for the survival and health of children, and the protection of their rights, safety, and well-being. These are contained primarily in the policies of the MOH and supported by the Ministries of Education, Women, Family and Community Development, Agriculture and Agro-Based Industries, Human Resources, and Natural Resources and Environment. NGOs and professional bodies play an important role in providing for specialized services and care for children with special needs, as well as raising public awareness about the importance of protecting children's lives.

The role of the Departments of National Unity, Social Welfare, KEMAS, and the private sector in providing for pre-school education for children around the ages of 3–5 has also been supportive. These institutions are provided with facilities to undertake programmes on monitoring children's growth, nutritional education, and supplementary feeding, with the MOH providing the necessary technical and professional support for pre-school health services.

Partnerships with international agencies

Cooperation and partnership with international organizations, in particular in the health sector—World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), and the World Bank—in supporting health and educational programmes for women and children, have facilitated the government in guiding its policies and direction based on country-specific needs and priorities. The partnership of the government with international agencies, particularly UNICEF and WHO in the case of child health and nutrition, during the early years of programme development in the 1970s and 1980, has been catalytic. Malaysia capitalized on UNICEF's call for Action for Children, International Conventions, and child survival strategy priorities, to raise awareness and advocacy for child health and survival. WHO technologies and guidance have been utilized in national capacity building and in the formulation of child health policy and programme guidelines, especially for immunization and prevention of communicable diseases. Both UNICEF and WHO have provided technical support, as well as small grants, for innovations and operational research. In addition, UNFPA has supported Malaysia's efforts to integrate Family Planning into MCH and Health Education promotion, through training and programme development assistance, while the World Bank has provided loans for upgrading rural health infrastructure.

Malaysia participated at international conventions organized by UNICEF at the highest level to monitor progress of the mid- and end-decade goals for children by countries. Hence, Malaysia has kept abreast of the latest development information and knowledge on programmes and priorities for children, and has shared its experiences on child and maternal survival with countries in Asia and the Pacific.

Participation

In conjunction with the International Year of the Child in 1979, the MCH Unit of the MOH advocated for Child Survival Strategies. New strategies were introduced with budgetary allocations, while existing strategies were streamlined. Strategies were thus formulated for oral rehydration therapy, expanded programme of immunization (measles and tetanus toxoid for pregnant mothers), screening of newborns, and the National Nutrition Surveillance System. Improved growth monitoring charts were devised which also served as a health education tool for nutrition. Emphasis was given to breastfeeding and management of diarrhoea diseases.

Malaysia was a party to the World Declaration on Child Survival, Protection, and Development in July 1991 and ratified the Convention of the Rights of the Child in 1995. This reflected the government's commitment to children and was instrumental in galvanizing the commitment and efforts of the public and private sectors, as well as NGOs, and the community at large. The convening of wide stakeholder consultations, comprising government agencies, the private sector, academicians, professional bodies, NGOs, and individuals, coordinated at the central level by the Economic Planning Unit (EPU) of the Prime Minister's Department, gave the necessary drive to the formulation of a comprehensive policy framework for children based on an integrated intersectoral approach with multi-agency participation.

A National Plan of Action for Child Survival, Protection and Development with the theme 'Caring for the Children of Malaysia' was launched. It described Malaysia's policies, priorities, and actions in promoting the best interests of the child over the period 1991–2000.

Budget allocations

The government's increasing commitment to improving health in general, and child health in particular, can be gauged by the relatively high level of the development budget spent on health (Table 4.3). A sizeable proportion of this budget has consistently been allocated to improving rural health services, especially MCH services. These services have been provided free, or at very low cost, to ensure that they are accessible to the poor.

Table 4.3 Development Budget Expenditure on Health, Malaysia, 1970–2003

	1970	1980	1990	2000	2003
% of budget for health	2.8	1.1	4.3	4.6	6.8

Sources of data: Malaysia, Ministry of Finance, various years.

Programmes

Child mortality reduction through poverty-reducing programmes

The Malaysian government took a proactive stance in promoting health as an essential component to integrate its rural development strategies and programmes, with prevention of communicable diseases, including malaria and tuberculosis, clean water and sanitation, maternal and child health, and nutrition and health education as major health elements.

These elements have also been integrated into national anti-poverty and pro-poor strategies (see Chapter 1). Nutrition education in health clinics and in the community, monitoring of children's growth, management of childhood diarrhoea with oral rehydration therapy (ORT), provision of nutrient and food supplements, and treatment of anaemia in women are some of the interventions implemented to reduce poverty-related child mortality. The lessons learned from the 1970s and 1980s of the AFNP were utilized to maximize health interventions in the planning of poverty-reduction strategies for the hard-core poor from the late 1980s. Priority was given to reducing malnutrition and nutritional deficiencies among young children and women of reproductive age. Nutrition surveillance of children under age 5 and rehabilitation of malnourished children with the provision of food supplements are direct outcomes of the effort to integrate poverty and nutrition rehabilitation.

Health care system development

Malaysia's Child Health Services have been developed as an integral component of maternal and child health to provide for the continuum of care between the mother and the child with the objective of optimizing the utilization of facilities, manpower, and other resources, and providing for a multiplicity of services at each clinic visit. The development of the health care system, in particular the rural health infrastructure, from the 1970s and through successive national five-year development plans, led to child health services being made available at health centres and health subcentres, which are staffed with staff nurses and trained assistant nurses (nurse auxiliaries).

Upgrading of health facilities (health centres) in the 1980s, with separate blocks for women and children, provided for a more woman- and child-friendly environment which eased overcrowding caused by the high MCH case load, and patients seeking outpatient as well as dental care. The revision of norms and staffing patterns of MCH clinics provided for the increase in posting of staff nurses and auxiliaries with conscious efforts to place more appropriately trained personnel at health centres. Staff nurses were replaced in health centres by postgraduate nurses/midwives. This enabled a more comprehensive range of child health services to be provided and supervised by health sisters (nurse supervisors), with medical officers attending to referrals and emergencies. The utilization of nursing manpower in the provision of child health services has been a strong enabling factor in sustaining service delivery, expanding coverage, and reaching out to underserved communities.

Bringing child care closer to communities

Starting from the mid-1970s, the upgrading of the rural health system from a three-tier to a two-tier system of full-fledged health centres and community clinics provided for expansion of coverage of child health care to the rural population and access to a wider range of services (Table 4.4). Through this two-tier system, midwife clinics were upgraded to health clinics in terms of a bigger space to accommodate the new child health services while the existing midwives underwent retraining to equip themselves for their new role as community nurses. This midwife to community nurse conversion programme paved the way for the creation of a new category of auxiliary nurses, and eventually replaced single-purpose midwives and assistant nurses at health facilities.

Community nurses have been equipped with training and skills in basic health care—newborn screening and care, immunization, growth monitoring, treatment of common ailments of childhood, such as oral rehydration for diarrhoea; and providing mothers and families with child health education, including breastfeeding and nutrition. This has been one of the major factors in bringing child health services nearer to homes and communities, and increasing service utilization and acceptability. Providing mothers with a supportive environment to carry out their roles effectively and efficiently, that is with adequate equipment, drugs, supplies and living quarters, as well as supervision by nurses, is one of the key enabling factors.

Table 4.4 Structure of Primary Health Care, Malaysia

	Level of Service	Staff	Services
Three-tier system (1956–66)	Main health centre (1:50,000 population)	Doctor and dental officer	Priority outpatient care and dental care
	Health sub-centre (1:10,000)	Medical assistants and staff nurses	Outpatient screening and MCH care
	Midwife clinics (1:2,000)	Midwife	Home delivery and home visiting
Two-tier system (1966–present)	Health centre (1:20,000)	Doctor, dental officer, medical assistants, and public health nurses	Outpatient care, MCH care, environmental health, food quality demonstration, health education, family planning, and dispensary
	Community clinics (1:4,000)	Community nurse, midwife, or midwives	MCH care, home delivery, home-visiting, minor ailments, and family planning

Comprehensive package of child health services with MCH programme

Child health services have been carefully developed since 1970, with the establishment of the MCH and Health Education Units in the MOH. These units have been responsible for establishing service norms, standards, and procedures, as well as the delegation of roles and responsibilities of manpower for service delivery. The integrated maternal and child health programme approach aimed to synergize efforts to reduce child mortality. Leading causes of child mortality were identified, and strategies for action formulated that included a package of priority services for reducing infant mortality.

These measures were in line with WHO and UNICEF child health priorities in the 1970s and 1980s that focused on growth monitoring, ORT, breastfeeding, immunization, and child nutrition. In the later part of the 1980s and 1990s, strategies were expanded to include an expanded programme of immunization (EPI), management of acute respiratory infections (ARI), integrated management of childhood diseases, and management of specific nutrition deficiency diseases (iron, vitamin A, and iodine).

The implementation of these child survival strategies over the past two decades led to a significant reduction in post-neonatal mortality. Declines in perinatal and neonatal mortality were initially less marked. These are more complex to manage, particularly perinatal deaths that are closely associated with maternal factors, the condition of the mother during pregnancy, and factors surrounding delivery and immediately after delivery. Strategies were hence planned from the mid-1980s onwards to address the urgent and major causes of perinatal deaths, especially from birth injuries, asphyxia, and low birth weight.

Growth monitoring

Monitoring of growth and development of young children provides for a systematic assessment of health and nutrition status and for early action or intervention. Focused and participatory discussions to ascertain slow, or no, weight gain provide the entry point for health education and advice on simple life-saving measures, such as breastfeeding, balanced diets, and oral rehydration for diarrhoea, as well as the opportunity for instituting early management of impending problems and referrals. Growth Curve Charts, introduced in the mid-1970s with further improvements in the 1980s, and made available as home-based child health cards in the 1990s, have been a vital tool for the introduction and acceptance of child survival strategies, including prevention and management of chronic malnutrition, thus facilitating efforts to reduce infant and child mortality.

Oral rehydration therapy (ORT)

Diarrhoeal diseases were one of the leading causes of child mortality in Malaysia up to the 1980s. Through various child health programmes, concerted efforts were made to prevent and reduce diarrhoea-related diseases through advice on breastfeeding, hygiene and cleanliness, food safety, clean water, and sanitation. Recognizing that child deaths as a result of dehydration due to diarrhoeal diseases could be averted with the introduction of ORT, Malaysia became one of the first countries to test its use in the mid-

1980s with the support of WHO/UNICEF. Subsequently with the support of paediatricians and training of doctors, nurses, and community nurses on ORT, it became a basic programme for child health care and reduction of mortality. Oral rehydration salts are manufactured locally in Malaysia in accordance with WHO specifications. Guidelines for clinical management are available for doctors and nurses to ensure their correct usage for rehydration and to overcome any constraints or barriers to their use. Deaths from diarrhoeal dehydration have been reduced significantly since the beginning of the 1990s with the introduction of oral therapy combined with education on the need for early introduction of solids for such children.

Promotion of breastfeeding and code of ethics for infant formula products

The MOH embarked on a national Breastfeeding Campaign in 1976 to promote a culture of breastfeeding, especially to prevent declines in breastfeeding practice. Women and families, in both urban and rural areas, were provided information and educated on the benefits and advantages of breastfeeding, prevention of diarrhoeal diseases from contaminated milk bottles and water, and cleanliness and hygiene. Health education and awareness campaigns were conducted in communities and clinics, as well as through the media. With the introduction of the Baby Friendly Initiative by UNICEF and WHO in the late 1980s, Malaysia extended the promotion of breastfeeding to hospitals. Nurses and doctors actively advocated breastfeeding, discontinued the routine practice of giving bottle feeds to newborns, and made possible the rooming in of mothers and newborns. In addition, a Code of Ethics for Marketing and Distribution of Infant Formula Products was drawn up. First introduced in 1979 as a voluntary code among health professionals and the milk industry, the code has undergone several revisions to improve cooperation among them and to maintain voluntary compliance based on ethics for child health and survival. Difficult decisions were made: for example, the stopping of free milk formulae supplies to hospitals and the distribution of free samples to mothers and health personnel. Malaysia has continued to sustain the Baby Friendly Initiative, which has evolved to Hospital Friendly Initiatives, with certification given to public and private hospitals. Greater involvement of NGOs and women's support groups on breastfeeding continues to raise awareness and practice among rural and urban women.

Nutrition surveillance and nutrition rehabilitation programme for children

In line with the government's thrust to eradicate poverty and to improve the quality of life and health, and in order to plan for more targeted nutrition interventions to reduce poverty-related malnutrition, the MOH undertook a Nutrition Surveillance exercise from 1986 to 1987. Weights and heights of children under 7 were obtained in clinics and community sessions. Clinical examinations for signs and symptoms of chronic malnutrition and nutritional deficiencies were recorded and details of such children kept.

The nutritional surveillance exercise resulted in data on results for age of children, incidence of low birth weight, and incidence of malnutrition of children below age 7. A

report encompassing the major contributory factors and causes of malnutrition also identified 12,000 children under age 5 who needed urgent nutrition and health rehabilitation. With an initial special grant of RM12 million, a Nutrition Rehabilitation Strategy was drawn up, which included the monthly provision of food and nutrient supplements, popularly known as the 'Food Basket' programme. Beneficiaries (children) of this programme were also given regular follow-up checks with basic health care, and their physical and mental development was monitored. This programme, implemented since 1989, is currently made available as part of the nutrition intervention programmes of the MOH.

Acute Respiratory Infection (ARI)

Recognizing that ARI is a leading cause of morbidity and ranks among the six highest causes of death in children under age 5, especially from pneumonia complications, a National ARI Programme was introduced in 1991. The objective was to improve case management of ARI and reduce the resulting mortality. ARI and many other communicable diseases are to a large extent dependent on the health and nutrition status of the child, as well as their immunization status. The total health status of the child was considered and holistic care provided, including immunization and nutrition. This improved case management of current infections led to improvements in the child's overall health status.

The concept of integrated management of childhood illness (IMCI) was implemented in the 1990s by the MOH, with the support of WHO/UNICEF, to further reduce child mortality. IMCI is an integrated approach to child health that focuses on the well-being of the whole child. It aims to reduce death, illness, and disability and to promote improved growth and development among children under 5 years of age.

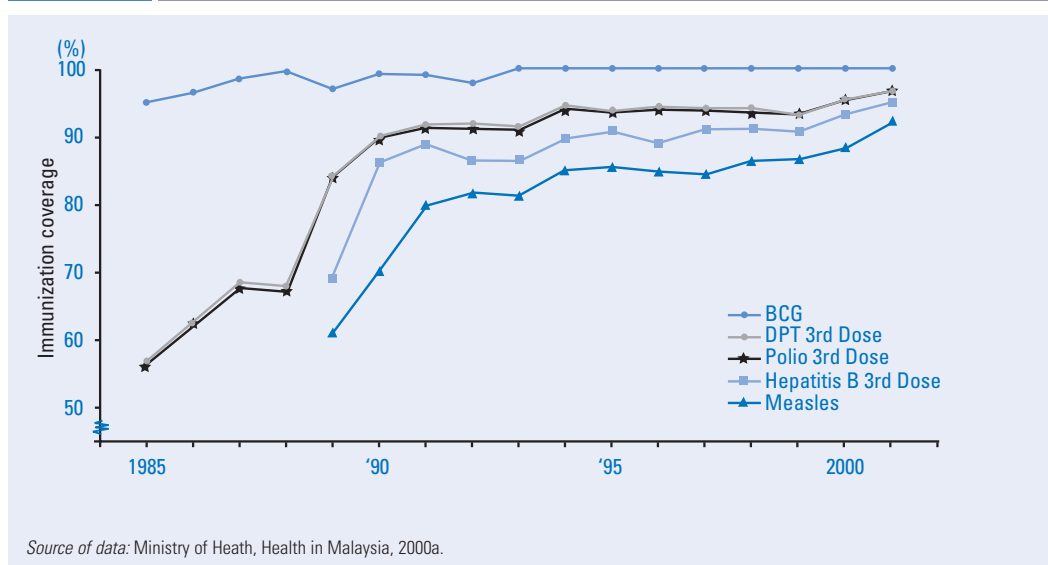
Expanded programme of immunization (EPI)

Malaysia introduced child immunization programmes in a phased and sustainable manner, thus integrating them into existing child health services. With every vaccine introduced, health personnel were trained, a plan of action was drawn up for targeting coverage and purchase of vaccines, and the community was informed and educated on the need for, and benefits of, the vaccine. The programme began with DPT (Triple Antigen) and BCG in the 1960s and expanded to include polio vaccine in 1974, tetanus toxoid for pregnant women in the mid-1970s, measles vaccine in the mid-1980s, rubella for school children in 1987, and Hepatitis B for newborns in 1989. During the 1980s, support for immunization was intensified with public education campaigns and involvement of NGOs and service organizations and participation by the private health sector. The MOH, in partnership with UNICEF, strengthened and improved the storage and distribution systems for vaccines, conducted in-service training for health personnel, and justified sufficient budgetary allocations for purchase of the new vaccines and for widening coverage in low-coverage areas.

From 1990, the expanded programme of immunization was intensified at all levels—national, state, and district—to achieve the goal of universal child immunization.

By 1993, BCG vaccination coverage of infants reached 100 per cent (Figure 4.7). Efforts were also geared to achieving the mid-decade goal of the World Plan of Action for Children for the elimination of neonatal tetanus. Coverage of pregnant women with tetanus toxoid was strengthened and deliveries by trained health personnel increased to eliminate neonatal tetanus from unclean deliveries. The coverage of immunization through routine child health service delivery has been sustained at about 90 per cent in the early years of the new millennium.

Figure 4.7 Immunization Coverage of Infants, Malaysia, 1985–2001



Insights gained

Commitment to long-term investment

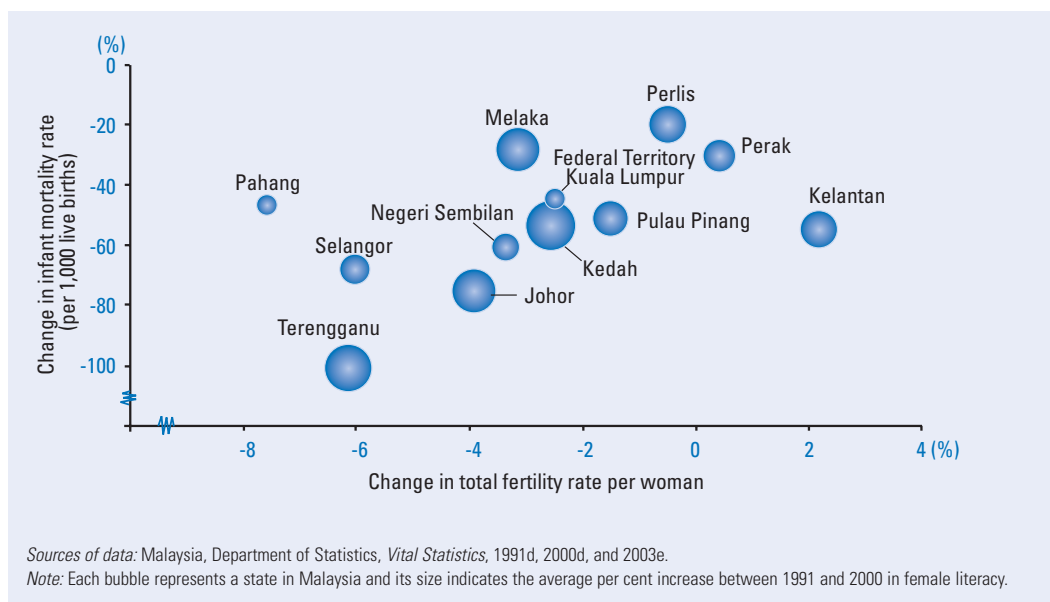
Reductions in child mortality require long-term investments. Continued efforts in all aspects of health-service delivery are essential to ensure health personnel have the necessary training and skills, and access to appropriate drugs, supplies, equipment, referrals, and other support.

Malaysia has invested in upgrading pre-service training of auxiliary nurses, midwives, and community nurses with skills in giving immunization, growth monitoring, treatment of minor childhood ailments, and basic newborn care. This has enabled basic childcare to be made available at the peripheral level nearest to families and communities—a service which was not available prior to the mid-1970s. Similarly, investments have been made in providing postgraduate public health training to nurses and midwives to enable them to provide a higher level of service for children as well as to supervise nurses.

Ensuring universal primary health care coverage and the enrolment of all girls and boys in school, coupled with targeted nutritional programmes for the poor, has reduced infant and child mortality. Investments in maternal education have affected nutritional status and led to full use of the available health-care services. This has been reinforced by better educated mothers, who typically take care of the health and nutrition of their children, having greater awareness of the importance of health-care services and making more demands for them.

Improved education (see Chapter 2), coupled with higher female labour force participation, has led to changes in demographic behaviour that have been conducive to lowering child mortality. In particular, Malaysian women now marry at much later ages than in the past, and have fewer and less closely spaced births. The Malaysian evidence shows that the larger the decline in fertility (total fertility rate), the larger the decline in infant mortality, taking into account increases in female literacy (Figure 4.8).

Figure 4.8 The Larger the Decline in Fertility Levels and Increases in Female Literacy, the Larger the Decline in Infant Mortality, 1991 and 2000



Systematic implementation

Malaysia's approach to reducing child mortality has been done in a purposeful and systematic manner. Initially, this involved identifying specific strategies to effectively reduce a major cause of infant or child mortality, and subsequently implementing them within the existing health system. This was done utilizing the available human resources, who were provided with specific training and support. The first approach adopted was to implement the child survival strategies which would lead to a reduction of post-neonatal deaths—from immunizable diseases (diphtheria, whooping cough, tuberculosis, polio and later on measles), and from diarrhoea diseases for which oral rehydration and breastfeeding are life savers. At the same time, concerted efforts were made to reduce childhood malnutrition and nutrition-deficiency diseases, for which a multisectoral integrated approach was utilized. This was followed by strategies to reduce specific nutritional deficiencies, such as iodine and iron deficiency.

Future challenges

Sustaining reductions in child mortality

In the context of relatively low levels of infant and child mortality, strong advocacy must be continued to keep issues of child health on the national agenda. The primary focus needs to be on further reductions of perinatal and neonatal mortality, while trying to eliminate the remaining post-neonatal deaths. The former requires increased collaboration and teamwork between obstetric and paediatric units and more sophisticated technology and equipment for intensive newborn care. Further reductions in perinatal mortality will require greater budgetary and other resources. Improved use needs to be made of data from the prenatal audits, linking them to improving the care of women, particularly during delivery.

Increased efforts in intersectoral participation and collaboration are required at all levels, especially in strengthening linkages between poverty reduction, child malnutrition, and infection. Health personnel have to review their strategies to cover hard-to-reach disadvantaged target groups. Identification of poor and underserved households needs to be made.

Reducing inequities

Though infant and under-5 child mortality rates have declined markedly, some sharp disparities still exist among states and the major ethnic groups. These differentials reflect differences in the levels of development, coupled with differentials in access to health services between urban and rural areas. Reducing the disparities remains a challenge. Equity in access to services is dependent on the availability of health infrastructure; trained and skilled manpower; adequate vehicles, equipment, drugs, and logistic support; and above all, financial resources. Even more complex will be issues of access related to

socio-cultural, religious, and traditional constraints that require sensitive and more client-oriented and friendly approaches.

International migration

The effects of in-migration, and the influx of foreign workers and their families to Malaysia, on health patterns, need to be carefully monitored. Migrants, often coming from neighbouring countries with less developed health systems, may bring with them diseases that can easily spread to children, such as tuberculosis and malaria. In addition, birth deliveries conducted by unskilled birth attendants run the risk of increasing infant (and maternal) mortality among migrant communities. The issue of providing health services and programmes to targeted groups including migrant communities, especially in the relatively higher mortality states of Sabah and Sarawak, needs to be addressed.

Financial resources and health care costs

Malaysians currently enjoy public sector health care, which is heavily subsidized, especially for government servants, and almost free for those with limited means. With the rapid growth of the private health sector, particularly in urban areas, people have been able to exercise their choice of health care. Only those who can afford, or are covered by health insurance schemes, utilize the private sector. Rising expectations and the greater demand for specialist services, even for primary care, will lead to increased costs for, and a heavier burden on, the public health sector. For the future, the private sector needs to consider cost-sharing schemes, or models for a shared responsibility for health care. Some private hospitals have already begun to collaborate in national initiatives, such as the Hospital Baby Friendly Initiative. Cost-sharing mechanisms can also be implemented for a win-win situation. A start was made with the Hepatitis B immunization for newborns and such schemes can be explored for other services.

Improving the quality of care

Further upgrading of health centres and district hospitals from the 1990s in terms of physical infrastructure; diagnostic and laboratory facilities; equipment; drugs and supplies, as well as transportation and telecommunication facilities in health clinics, will improve the quality of services at the primary level. Monitoring through the Health Management Information Systems and specific mechanisms, such as perinatal audits and the quality assurance programme, will provide for refinements of strategies to further reduce perinatal and neonatal mortality and nutritional deficiencies.

Improving child mortality statistics for Sabah and Sarawak

While civil registration statistics for Peninsular Malaysia are complete and reliable, those for the more sparsely populated states of Sabah and Sarawak, especially of child deaths, are incomplete. Despite the fact that civil registration of births and deaths is compulsory, deaths of Malaysians occurring outside of the urban and semi-urban areas are incompletely reported.

There is a need for more systematic and sustained reporting in the states of Sabah and Sarawak, especially for the indigenous communities whose levels of mortality are likely to be the highest in Malaysia. Regular household surveys should be conducted to determine the levels of under-reporting of deaths in civil registration, and to estimate infant and child mortality rates and their correlates. Furthermore, there is also a need to implement measures to ensure the complete coverage of vital events in these two states.



MDG 5

Improve Maternal Health

Ever since the Safe Motherhood Initiative was launched by the World Health Organization (WHO) in 1987, with the aim of reducing the unacceptably high levels of maternal mortality evidenced in many developing countries, there has been heightened national and international concern to improve maternal health—MDG 5. This goal, which evolved out of the Programme of Action of the 1994 United Nations International Conference on Population and Development (ICPD), and subsequently the Fourth World Conference on Women in Beijing in 1995, has led to a much sharper focus on providing increased access to public health interventions that result in better maternal health.

Malaysia has experienced dramatic improvements in health in general, and maternal and child health in particular, throughout the post-Independence era. Well before the Safe Motherhood Initiative, the reported maternal mortality ratio (MMR) had halved between 1957 and 1970, when it fell from around 280 to 141 per 100,000 live births. By 1990 it was below 20 per 100,000 live births—a level close to that of most advanced countries. Subsequently, the MMR has remained around this low level, such that maternal deaths have become relatively rare events: less than two in every 10,000 deliveries.

Malaysia's remarkable experience in reducing maternal mortality reflects a comprehensive strategic approach to improving maternal health. The six key elements of this approach are as follows: (i) improve access to, and quality of care of, maternal health services, including family planning, by expanding health care facilities in rural and urban areas; (ii) invest in upgrading the quality of essential obstetric care in district hospitals, with a focus on emergency obstetric care services; (iii) streamline and improve the efficiency of referral and feedback systems to prevent delays in service delivery; (iv) increase the professional skills of trained delivery attendants to manage pregnancy and delivery complications; (v) implement a monitoring system with periodical reviews of the system of investigation, including reporting of maternal deaths through a confidential enquiry system; and (vi) work closely with communities to remove social and cultural constraints and improve acceptability of modern maternal health services.

This chapter begins by reviewing trends and differences in indicators of maternal health in Malaysia (Box 5.1). It next considers the policies, strategies, and programmes that were implemented to improve maternal health, including a summary of the insights gained in implementing a flexible approach which encouraged local initiatives that are sensitive to the socio-cultural, religious, and traditional environment of women and the community. The chapter concludes with some pointers on future challenges.

Box 5.1 INDICATORS FOR MONITORING MATERNAL HEALTH

Two indicators are recommended for monitoring progress towards MDG5 to improve maternal health and its related target of reducing by three quarters, between 1990 and 2015, the maternal mortality ratio (MMR). These are the MMR and the proportion of births attended by skilled health personnel.

The MMR is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration of pregnancy, per 100,000 births. Such deaths are affected by various factors, especially general health status, nutrition, education, and all

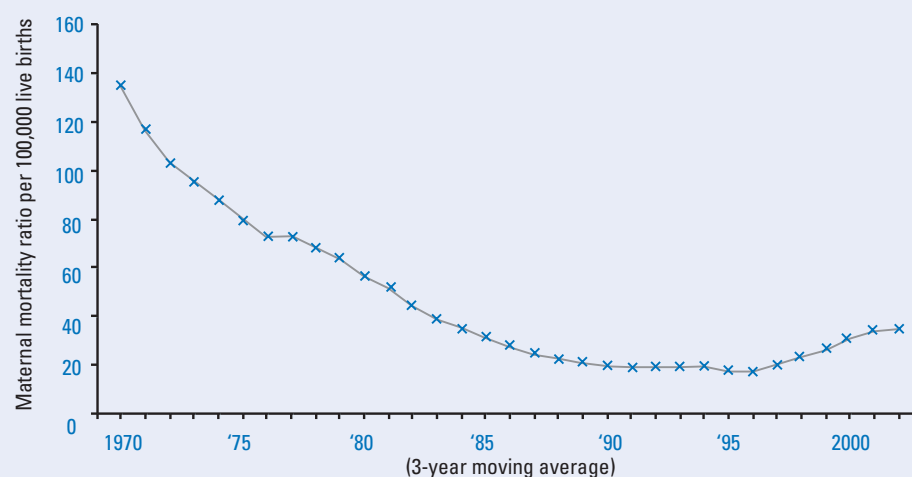
obstetrics services and care, during pregnancy and childbirth.

The *proportion of births attended by skilled health personnel* is the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labour, and the post-partum period; to conduct deliveries on their own; and to care for newborns. Skilled health personnel include only those who are properly trained and who have appropriate equipment and drugs. This indicator focuses on access to professional care during pregnancy and childbirth, particularly for the management of complications. It has a strong inverse relationship with the MMR.

Trends in maternal mortality

Malaysia has demonstrated progress in its steady and sustained decline in maternal mortality (Figure 5.1). A steep decline occurred in the MMR in the decade between 1970 and 1980 when it fell from 141 to 56 per 100,000 live births, a decline of 40 per cent. The rapid decline continued throughout the 1980s such that by 1990 the MMR was just 19 per 100,000 births.

Among several factors that were responsible for this dramatic decline in the MMR include (i) the national commitment to improve maternal health which enabled the MOH to obtain adequate allocation of resources; (ii) access to professional care during pregnancies and childbirth; and (iii) increasing access to quality family planning services and information. During the 1990s the MMR has hovered around this low level, except for a temporary rise in 1998 and 1999. This increase was due to adjustments in the recorded numbers of maternal deaths to take account of cause-of-death misclassifications. Further declines in the MMR will be slow as indirect causes of maternal mortality are more complex to manage and will need support of other disciplines for specialized skills, multidisciplinary case management, and prevention of pregnancies of known high-risk factors.

Figure 5.1 Maternal Mortality Ratios, Malaysia, 1970–2002

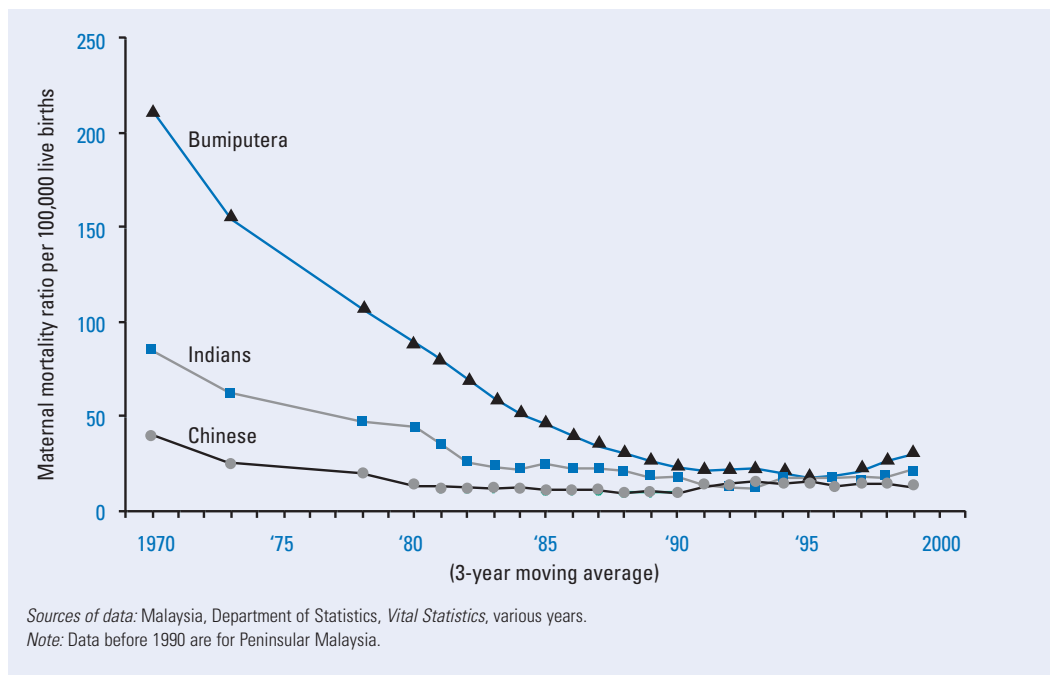
Sources of data: Malaysia, Department of Statistics, *Vital Statistics*, 2000g, 2001c, and 2003e.

Note: Since 1998 numbers of maternal deaths have been adjusted to take account of cause of death misclassifications—see text below.

Ethnic and state differentials

Since the initiation of the Confidential Enquiry into Maternal Deaths (CEMD) in 1991, with active case detection of maternal mortality, the number of maternal deaths as recorded through the vital registration system has been shown to be an underestimate. From 1998 onwards, the decision was taken to publish only data on maternal deaths that also include those identified through the CEMD.

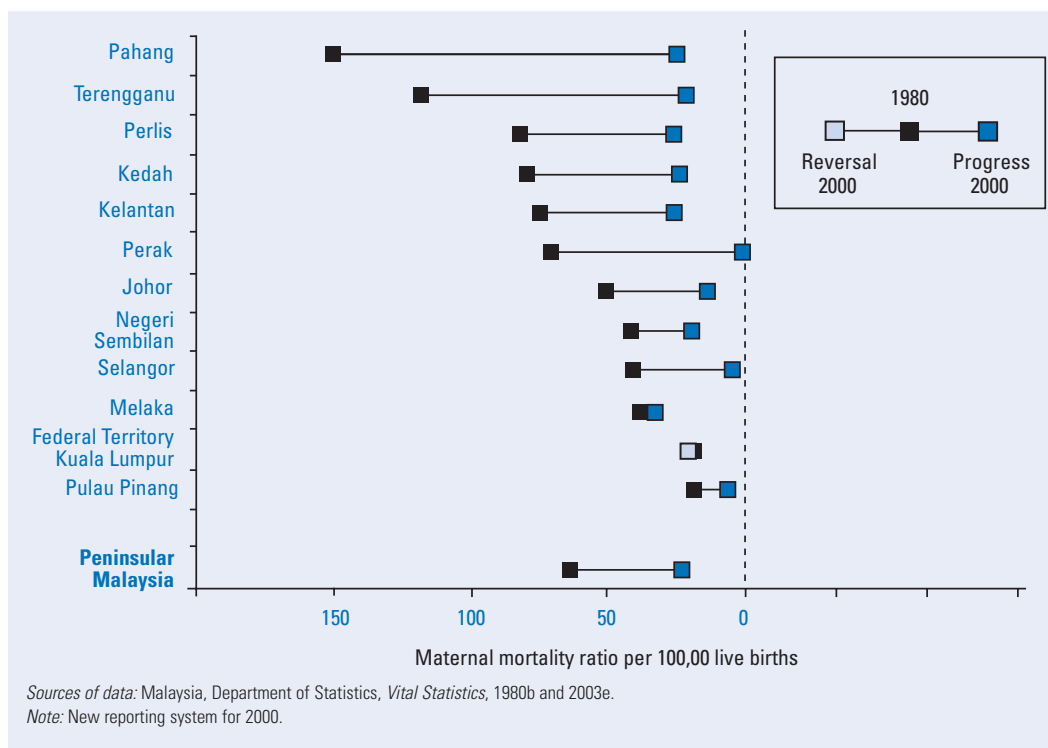
A conspicuous feature of the pattern of maternal mortality at the beginning of the 1970s was the marked disparities in the MMR levels of the different ethnic communities. Thus in 1970, the *Bumiputera* MMR, at 211 per 100,000 births, was more than five times higher than that of the Chinese, at 49 per 100,000 births, and nearly two and a half times that of the Indians, at 100 per 100,000 births (Figure 5.2). At that time, the *Bumiputera* were a much more rural community, the vast majority of whom were living below the poverty line with limited access to maternal health services. Most of their births were delivered at home without the benefit of skilled birth attendants. Conversely, the Chinese, being more affluent and more urbanized, had much more ready access to hospitals and medical centres. Since the 1970s, as the factors leading to the high level of MMR among the *Bumiputera* have been ameliorated, the ethnic differentials have narrowed but the more urbanized Chinese, with significantly higher levels of contraceptive use and lower levels of fertility, still have MMR levels that are less than half those of the *Bumiputera*.

Figure 5.2 Maternal Mortality Ratios by Ethnic Group, Malaysia, 1970–2000

Substantial reductions in maternal mortality in the immediate post-Independence period up to the 1980s were mainly attributed to overall socio-economic development, especially improved access to health-care services. The early development of the rural health infrastructure through a three-tier system of midwife clinics, health subcentres, and main centres brought basic maternal and child health care services to the rural community. The building of hospitals in the lesser developed state capitals and districts, together with the establishment of nursing and midwifery training schools, also helped in providing for professional midwifery and maternal care to the rural population. Efforts made by health personnel to mobilize and educate rural families and the community on services available at health centres; the need for prenatal care, delivery, and postnatal care by government-trained midwives; and better hygiene and nutrition were factors that contributed to utilization of modern health care and maternal mortality decline.

Not surprisingly, in the 1970s and 1980s, maternal mortality was highest in the most rural states and lowest in those that were most urbanized. However, over the two decades between 1980 and 2000, there were major improvements in all states and a significant narrowing of state differentials. Thus, the MMR in the predominantly rural east coast states of Pahang and Terengganu fell from 151 and 118 per 100,000 live births in 1980, to just 24 and 21 per 100,000 live births in 2000—much the same level as for Peninsular Malaysia (Figure 5.3).

Figure 5.3 Changes in Maternal Mortality Ratios by State, Peninsular Malaysia, 1980–2000



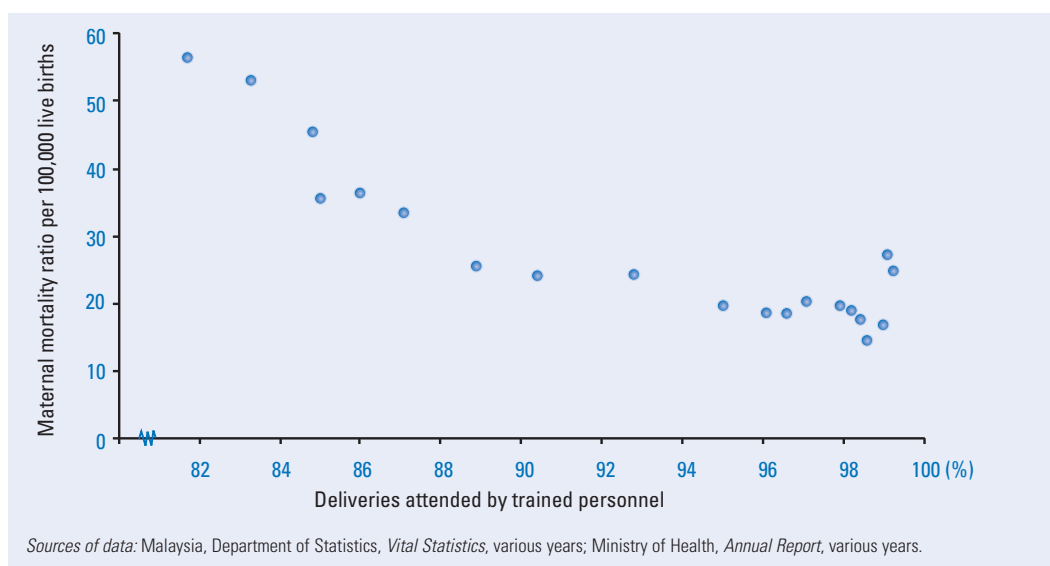
Births attended by skilled health personnel

Access to professional care during pregnancy and childbirth, particularly for the management of complications, is strongly associated with MMR levels. In Malaysia, as the proportion of births attended by trained health personnel increased markedly during the 1980s, the MMR decreased sharply (Figure 5.4). However, by the late 1980s, when the proportion of births attended by skilled health attendants had already reached above 90 per cent, the rate of decline in the MMR moderated. A key strategic element in Malaysia's approach towards reducing MMR levels has been to increase the professional midwifery skills of birth attendants so that all women have access to high-quality delivery care, while simultaneously strengthening national health systems, particularly in rural areas.

The rapid development and upgrading of health-care services over the past three decades, including the establishment of nursing and midwifery schools, led to both an increase in the number of trained health personnel and improved midwifery and obstetric skills through postgraduate (midwifery) and in-service training as well as family planning. The proportion of births attended by skilled health personnel increased significantly from 20 per cent in 1970, to 96.1 per cent in 1990 and to 99.2 per cent in 2000. The training of Traditional Birth Attendants (TBAs) as partners in health care with government-trained

midwives, and the utilization of TBAs to promote the use of health facilities to women for antenatal care and delivery, was another factor that led to an increase in the proportion of deliveries attended by trained personnel.

Figure 5.4 Maternal Mortality Ratio and Deliveries Attended by Trained Health Personnel, Peninsular Malaysia, 1980–2000



In the mid-1980s and 1990s, Malaysian women were encouraged to deliver in hospitals, especially those with pregnancy complications, who were assigned red and yellow colour codes during prenatal assessment. This shift to institutional deliveries, in urban and rural areas, resulted in the need for the establishment of low-risk delivery centres in urban and peri-urban areas and alternate birthing centres in rural areas to prevent overcrowding of hospitals. These alternate birthing centres were organized to provide a supportive environment for safe delivery and management of pregnancy and delivery complications to reduce maternal deaths.

The proportion of births delivered in hospitals, clinics, and maternity homes is shown to have risen sharply such that in 2000, the figure was above 97 per cent in Peninsular Malaysia and Sarawak, and 74 per cent in Sabah (Table 5.1). The quality of nursing and midwifery curriculum, training, and practice is regularly reviewed and governed by the Board of Nurses and Board of Midwives. Malaysia has utilized nurses and midwives as the main providers of the maternal and child health (MCH) programme, with regulatory standards and practices ensuring quality maternal care. Expectant mothers were advised about the importance of skilled attendance for delivery and discouraged from the traditional custom of delivering at home with the support of TBAs.

Table 5.1 Institutional Deliveries of Births, Malaysia, 1985, 1990, and 2000

Place of Delivery	1985	1990	2000
Peninsular Malaysia			
Government hospitals and clinics	151,140	222,441	304,589
Private hospitals/ Maternity homes	23,743	57,916	85,889
TOTAL*	175,208	280,566	390,587
As % of all deliveries	53.6	75.5	97.5
Home deliveries (%)	46.4	24.5	2.5
Sabah			
Government hospitals and clinics	22,643	34,831	43,906
Private hospitals/ Maternity homes	1,462	1,981	1,642
TOTAL*	24,105	36,936	45,579
As % of all deliveries	53.8	61.6	73.8
Home deliveries (%)	46.2	38.4	26.2
Sarawak			
Government hospitals and clinics	24,362	37,616	39,707
Private hospitals/Maternity homes	1,816	2,778	4,749
TOTAL*	26,178	40,394	44,456
As % of all deliveries	67.1	90.3	97.7
Home deliveries (%)	32.9	9.7	2.3
Malaysia			
Government hospitals and clinics	198,145	294,888	388,202
Private hospitals/Maternity homes	27,021	62,675	92,280
TOTAL*	225,491	357,896	480,622
As % of all deliveries	54.9	75.2	94.6
Home deliveries (%)	45.1	24.8	5.4

Sources of data: Malaysia, Ministry of Health, *Annual Report*, 1985, 1990, and 2000.

* Includes other places such as estates.

Enabling environment

Family planning and maternal health

Increasing access to quality family planning services and information has been an important factor in improving maternal health in Malaysia. It has, for example, been a factor in lowering fertility levels among women at the youngest and oldest childbearing ages, as well as among those of high parity—groups known to have relatively higher risks of maternal mortality.

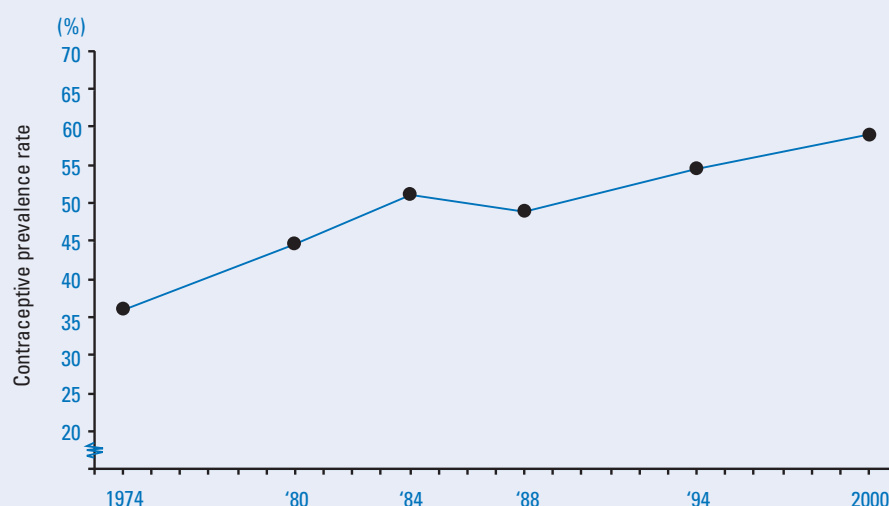
Pioneer efforts for organized family planning activities were first initiated by civil society through the state Family Planning Associations (FPAs), the first of which was established in Selangor in 1953, followed by those in three other states. The formation of the Federation of Family Planning Associations, Malaysia (FFPAM) in 1958, facilitated the

formation of FPAs in all other states in Malaysia. In 1966, the Family Planning Act was enacted leading to the establishment of a National Family Planning Board, renamed as the National Population and Family Development Board in 1988, to oversee a national programme in family planning. The National Family Planning Programme (NFPP), which was implemented as an integral component of the First Outline Perspective Plan (OPP1), 1971–90, has been guided by economic, social, and health reasons. Family planning services, based on voluntary acceptance, were initially actively promoted, thereby enabling couples to decide responsibly and freely the number and spacing of their children.

Over time, the NFPP has undergone several phases of development, involving expansion of approaches used, areas covered, and agencies involved in the support and provision of family planning information and services. Since 1971, family planning services have been progressively integrated into the Rural Health Services run by the Ministry of Health (MOH). The purpose of integration was to ensure that family planning could be provided under the total family health programme, which was more acceptable to the predominantly Bumiputera rural population. The integration of family planning into Rural Health Services helped overcome many inherent socio-cultural and religious barriers. Currently, all rural health facilities provide family planning services as part of an integrated MCH/FP programme.

The NFPP has reached almost all eligible couples for family planning services and information, education, and communication-related activities, through a network of service outlets run by the MOH, NPFDB, and FFPAM, and the private sector, with support provided by the United Nations Population Fund (UNFPA). Contraceptive prevalence rates (CPR) have increased progressively and have had a marked impact on levels of childbearing. The CPR, which was just 8 per cent in 1966, rose from 37 per cent in 1974, to 52 per cent in 1984, reaching around 58 per cent in 2000 (Figure 5.5). During these three decades, the total fertility rate per woman fell from 4.9 in 1970, to 3.3 in 1990 and to 3.0 in 2000.

There is scope for further improving maternal health by expanding access to reproductive health services and information to all who need them, especially the poorer communities. Furthermore, because gender relations affect reproductive health, men will need to take greater responsibility for their own sexual behaviour as well as respect and support their partners' right and health. Especially in the context of rising levels of HIV/AIDS, the reproductive health needs of adolescents and youths require particular attention. This requires gender-sensitive education and information programmes at various levels.

Figure 5.5 Estimated Contraceptive Prevalence Rates, Malaysia, 1974–2000

Sources of data: Data for 1974, 1984, and 1988: Malaysia, National Population and Family Development Board, 1994; data for 1994: Malaysia, National Population and Family Development Board, 1999.

Note: Data for 2000 estimated.

Government commitment

The national commitment to improve maternal health was implemented by the MOH with adequate allocation of resources, including financial, manpower, and physical infrastructure. This has nurtured sustained commitment from health professionals leading to improved maternal health. One key factor that has enabled the MOH to gain and sustain government support was through the use and sharing of data on high maternal mortality with key decision makers at all levels and at appropriate times to influence attitudes and to obtain support for new policies.

Sustained commitment to human resources

Malaysia's commitment to continuous improvement and strengthening of maternal and child health care is evident from the growth and upgrading of the health infrastructure, manpower, and logistic support, including communication and transport facilities. The MOH has provided sufficient numbers and categories of human resources, according to service norms and standards, to upgrade the skills and proficiency of birth attendants, especially with regard to the management of obstetric emergencies and pregnancy complications. Training in communication skills and supportive supervision with in-service training of doctors in obstetrics, paediatrics, and anaesthetic skills before district hospital postings are factors that have led to better maternal health care. Attention has been given to staff welfare and well-being. Staff in rural postings are provided with staff quarters, while vehicle loans are available to all staff, including motorcycle loans for community nurses and midwives. These have enabled the retention and motivation of trained and skilled personnel, especially those at primary-level facilities. In the mid-1980s, the

government reviewed the civil service salary structure whereby specific categories of health personnel, including doctors, nurses and midwives were classified as critical personnel and given a 'critical allowance'.

Partnership initiatives

One initiative, supported by WHO and UNICEF (United Nations Children's Fund), was the 'Primary Health Care' approach to reach out to underserved and unserved groups in remote areas, and to socially excluded groups, such as the poor, the indigenous, and the estate population. Specific strategies for these hard-to-reach groups were carried out through mobile teams and village health workers, with basic health care provided, including antenatal care, delivery, postnatal care, and family planning. UNICEF and WHO, through the Alma Ata Declaration for Primary Health Care in 1978, supported these outreach strategies, while the World Bank and UNFPA helped support better health facilities (separate MCH/FP block) and training of MCH personnel (doctors, nurses, and midwives) in specialized areas of maternal and child health and health education.

Other supportive factors

Planning and implementation of health policies and programmes in Malaysia has been multi-agency and multisectoral with coordination by the Economic Planning Unit (EPU). Health policies and strategies within national developmental plans have been based on a broad stakeholder consultation, that includes NGOs and relevant communities. An integrated approach has enabled synergies among sectoral programmes, such as the prevention of diseases, provision of water and environmental sanitation, and better nutrition, to benefit the overall health status.

The conscious effort to promote the advancement of women in formal and informal education, skills training, and micro-credit facilities, has empowered women to make decisions regarding their personal and family matters, including health care and use of health facilities.

The support from professional health associations and medical schools has facilitated the incorporation of new policies and technology into the medical and nursing curricula and in-service training, while the growth of the private health sector has afforded women more choices for maternal care and delivery.

Programmes

Development of a comprehensive and systematic health delivery system

Malaysia's investments in its health delivery system have been systematic and based on community needs with the aim of ensuring that basic health services are available, accessible, and affordable to all. The development of basic health infrastructure through the rural health service programme during the 1960s and 1970s, with links to district hospitals, provided for the availability of basic health care to the rural population of which

maternal and child health care was the major component. The conversion of the three-tier to the two-tier system in the mid-1970s improved availability and coverage, increased accessibility to a broader range of health services, including curative care, and improved quality of MCH services provided by higher trained personnel at the first level of contact. The conversion of the midwife to the community nurse from 1975 illustrates this.

Subsequent upgrading of the health delivery system from the 1980s includes measures such as creating separate blocks for maternal and child health services; upgrading human resources; expanding the scope of maternal and child health services, with specific strategies to reduce maternal mortality; building nucleus concept district hospitals; implementing flexible referrals and availability for emergency obstetric care; increasing accessibility to remote areas and underserved population groups through outreach services; developing the Health Management Information System and Quality Assurance programmes to improve data collection and utilization; and monitoring and upgrading quality of care.

Malaysia has progressed in the 1990s with further upgrading of physical infrastructure of health centres, *klinik desa* (rural health clinics), and district hospitals to allow for wider coverage in urban and rural areas; expanding the scope of services in curative and diagnostic aspects; and development of new programmes for health promotion for all women, the elderly, and adolescents. In the 1990s, low-risk maternity centres were established in urban areas in response to women's preference for institutional delivery, as a result of efforts to provide safe deliveries closer to communities.

Skilled birth attendants and professionalization of midwifery

Access to skilled birth attendance is one of the most important interventions for reducing maternal mortality. This relates both to the availability of sufficient numbers of skilled health personnel, as well as the availability of an enabling environment, such as provision of adequate drugs, supplies, transportation, referral facilities, and supportive management and supervision.

Professional midwifery, with the training and registration of midwives, began in the pre-Independence era. The establishment of midwifery schools and the subsequent upgrading of midwives to community nurses has been a vital factor in the steady increase in 'safe deliveries'. This has been further strengthened by support and supervision of the community nurse by a trained nurse/midwife and public health nurse at the health centre, who attended to referrals. Improved proficiency of midwifery skills and management of pregnancy and delivery complications through updating training curricula, in-service training, standardization of service protocols for management of major causes of maternal mortality, and allowing midwives and nurses to undertake lifesaving emergency procedures strengthened the capacity and capability of nurses and midwives to serve as effective frontline health professionals.

Underutilization of primary health care facilities was overcome by removing traditional social and cultural barriers, personal beliefs, and preferences of the communities through extensive efforts in health education in clinics, at home, in the villages, and among

influential persons in the community to improve 'acceptability' of services. Formerly in Malaysia, pregnancy and delivery were markedly affected by traditional and socio-cultural practices, beliefs, and taboos. Studies on preferences for place of delivery provided data for improvements to in-service training and to the managerial and organizational aspects of services. Reducing waiting time, improving patient flow, timely referrals, and appropriate management of pregnant women with complications, as well as providing more friendly client-oriented services, were among the measures undertaken.

Partnerships between TBAs and skilled birth attendants

Whether countries should invest in training TBAs or whether professional midwives and community nurses should replace TBAs is a controversial topic. Malaysia adopted both options. Realizing that TBAs were actively conducting deliveries in the 1960s and 1970s and that the majority of maternal deaths were among women who delivered at home with TBAs, the MOH began to register TBAs in 1974 and provided training on hygiene. In the late 1960s, the Family Planning Board had enrolled TBAs as community motivators and distributors for family planning products, such as pills and condoms. The continuing popularity of TBAs and the underutilization of peripheral health facilities (midwife clinics and community clinics) called for strategizing of efforts to provide for home deliveries by skilled birth attendants. A study on the practices of, and preferences for, TBAs, as well as reasons for underutilization of government midwives, was undertaken in 1984/5, and the findings were used to draw up a strategy for a more effective utilization of TBAs. This entailed serving the personal needs of the mother and family; mobilizing community and family support for pregnant women to utilize midwife clinics for antenatal care; avoiding harmful traditional practices carried out during pregnancy and delivery; and supporting government midwives during home deliveries and accompanying women to hospitals when referred for pregnancy checks or delivery.

TBAs were also taught to recognize the danger signs of pregnancy and delivery, to inform women and families on the colour coding system, and to encourage them to come to clinics monthly for updates and social visits. They were also allowed to carry on harmless traditional practices, such as reciting prayers and postnatal massage. Conversely, government midwives were given in-service updates on the colour coding management guidelines, management of complications of pregnancy and delivery, emergency procedures for maternal and newborn survival, and techniques to improve their communication, cordiality, and friendliness with TBAs, families, and the community. This partnership strategy was successful, as evidenced by the rapid decline of deliveries conducted by TBAs, the rise in hospital deliveries, and the acceptance of TBAs by professional midwives and nurses. By 2000, just 4,500 out of the 530,000 deliveries were carried out with the assistance of TBAs, compared with 20,000 of the 501,000 births in 1985.

Risk approach in maternal health care

Maternal death investigations in the mid-1970s revealed that the majority of deaths occurred at home, and involved delivery by TBAs, and that more than 80 per cent were

due to delay in seeking professional help and to improper management of deliveries resulting in post-partum haemorrhage, eclampsia, trauma/injury, and infection. Poor acceptance of government midwives, especially in traditional *Bumiputera* communities, and lack of competence in lifesaving skills to deal with emergency situations and serious complications of pregnancy and delivery were major constraints. Hence from 1979, Malaysia took steps to work on maternal mortality reduction strategies systematically through the 'Risk Approach', which began as a partnership initiative with WHO.

Krian district in Perak, the district with the highest reported maternal mortality in Peninsular Malaysia in 1979, was chosen as the 'field laboratory'. Baseline studies were carried out to identify the causes and contributory factors of maternal deaths cutting across individual and personal factors, health services, and community factors, to obtain reasons for delays. Based on the findings, a detailed problem analysis and prioritization of problems where interventions could be of most help was done. This was followed by the formulation of appropriate intervention strategies.

In order to plan for a more organized and effective management of prenatal care, a system was devised, listing the most commonly occurring risk factors underlying the identified problems. This evolved into a colour coding system for prenatal assessment which defined the level of care and category of health personnel required for each pregnancy. Cut-off points were determined for triggering off action and service protocols drawn up for management of major causes of mortality. Doctors, nurses, and midwives or community nurses from hospital and community health facilities were provided in-service training to improve their midwifery life skills while a more systematic and flexible referral system was put into practice to avoid delays in referrals and to cater for cases of complications and emergencies.

Community education and advocacy were strong elements of this approach as it was recognized that pregnancy and delivery are inextricably linked to the socio-cultural and traditional environment of the family and community. These included: (i) focused health education to women and their families to seek early care and to recognize the danger signs of pregnancy and delivery; (ii) appointing women who had undergone serious pregnancy or delivery complications as community motivators; (iii) mobilization of community resources for emergency transport; (iv) home help and financial assistance for needy families; and (v) advocacy by influential persons in the community, including district and village religious leaders.

A National Seminar on Risk Approach in 1987 resulted in many of the strategies being adopted into the national programme. The 'Risk Approach' in maternal health in the Malaysian context thus became a system designed for the early identification, appropriate management, and timely referral of pregnant women according to their assigned colour codes. This colour coding system devised for prenatal risk assessment is done in full recognition of the fact that all pregnant women are at risk, that it is not possible to accurately predict risk, and that predicting risk does not necessarily lead to the desired outcome. In the Malaysian context, however, this system is designed to 'activate' care for pregnant women, especially those with pregnancy complications and to maintain an alert system for preventing and avoiding possible causes of maternal mortality that may arise,

especially from delays. The Risk Approach hence aims to give care to all pregnant women but more to those in need. It was further augmented through insights gained from the methodology arising out of WHO's District Team Problem-Solving Approach (Box 5.2).

Box 5.2 DISTRICT TEAM PROBLEM-SOLVING APPROACH

Before the 1980s, collaboration between the hospital and health units had been unsatisfactory. Hospital staff did not think that they were part of the maternal mortality problem, because most deaths occurred at home and health units (community clinics and health centres) were blamed for not taking appropriate action. As more women were referred to hospitals and deaths were occurring in the hospitals as well, the staff had to acknowledge that they too had some deficiencies.

In 1989, WHO approached Malaysia to test the methodology for the District Team Problem-Solving (DTPS) Approach. This methodology was aimed at promoting better collaboration between the health and hospital units, and to foster a culture of teamwork in implementing the 'risk approach' strategies. District teams from hospital and community health units were formed and actions were taken based on problems faced by the district. The team approach first started with reassessing the situation of maternal deaths following each death, through the 'road to death approach', to identify problems and avoidable factors.

Five districts which had some of the highest MMRs were selected and a workshop for members of the hospital and health

units (at the national, state, and district levels) was held to train the team members on this new approach. These teams underwent systematic steps using their case profiles of maternal deaths:

- situational analysis
- problem statement and analysis
- problem analysis
- solutions identification and prioritization
- interventions design, and
- development of an action plan with monitoring indicators.

The teams then returned to their districts and implemented their action plans for nine months to a year after which they then came together again to review their progress and challenges and to refine their plans. This process provided a forum for the hospital and health staff to meet as a team and to discuss common problems and solutions. The teams also became more aware of the factors that influenced maternal deaths, some of which had not been adequately addressed.

About 30 districts in Malaysia have since used this approach and have reported better teamwork and collaboration between the health and hospital units.

Quality Assurance Programme

In the mid-1980s, the MOH began to work on the quality of care, as part of the Quality Assurance Programme and Quality Management System by tracking indicators of quality of care (outcomes) at the national level. These indicators were selected to identify priority areas of health care and services to track their progress, to standardize care, and to identify outliers which may need more targeted efforts for improvements. Although the system was aimed primarily at improving the quality of health care and not maternal mortality per se, they contributed indirectly to improving services provided to pregnant women. Selection of quality indicators was a two-step process of first identifying the indicators and then determining the standard for the indicators. Standards of care were then developed to enable investigation of any outliers. For example, if a district had an incidence rate of eclampsia of 25 per 10,000 total deliveries, which is above the selected standard, an investigation process of all eclampsia cases would have to be done, comparing them to the standards of care and patient factors to determine where the problem lies and what actions need to be taken. This reinforces the remedial or corrective

action, as outcomes of confidential enquiries of maternal deaths are linked to this system.

In the early 1990s, the government introduced a Total Quality Management (TQM) system. The MOH expanded its quality assurance programme to incorporate the key principles of TQM, including developing a mission and vision statement, emphasizing accountability (hands-on approach) for performance, fostering positive provider attitudes, improving client satisfaction, supporting continuous improvement, creating core values (teamwork, professionalism, and a caring attitude), and developing a client charter.

In 1999, the set of national indicators was expanded to include process indicators to enable programme managers to intervene at an earlier point in time to prevent an unwanted outcome. All states have developed a supervisory checklist for these indicators. The process indicators are used as a guide to facilitate feedback and programme refinement. Monitoring and use of the indicators for improving quality of care is done through approaches which include creating functional district planning teams; conducting training to enhance the health staff's ability to review the data in a non-judgmental manner; facilitating the development of local action plans to solve their own problems; and instituting confidential enquiry at the district, state, and national level.

Confidential Enquiry into Maternal Deaths (CEMD)

In order to obtain a profile of the causes and contributory factors of maternal deaths, a system of investigation of maternal deaths was instituted in the mid-1970s. Deaths among women who delivered at home and in government hospitals were investigated by midwives and nurses through a maternal death investigation format and the findings were discussed by the district health officer and the state MCH Committee. However, this information was not gathered systematically and in a uniform manner and the data collected were often not used to make programmatic decisions.

As a result in 1991, the CEMD system was introduced. A National Technical Committee, consisting of obstetricians and gynaecologists, anaesthesiologists, paediatricians, pharmacists, and nurses, was established to provide leadership, along with the support of state and district committees. The CEMD process is designed to ensure a timely examination of every maternal death; use an integrated approach that looks at both social and medical causes; review the roles of all personnel involved in the care of the woman; identify preventable factors present in the management of the cases and the constraints encountered; and identify measures to be taken at all levels to address deficiencies in standards of care. The names of patients and service providers are kept confidential, and the CEMD system is seen as a learning process and not a fault-finding or punitive process.

Some of the challenges of implementing the CEMD have included identifying the most important cause of death (both medical and social causes), particularly when death certificates are given by the police for home deliveries; approval for post-mortems which are not culturally acceptable to enhance clinical diagnosis; and getting adequate numbers of trained staff to conduct investigations, particularly in private hospitals.

In 1996, a Knowledge, Attitudes, and Practice Survey indicated that health managers had utilized the CEMD findings to improve the quality of care. For example, 68 per cent of

public facilities and 72 per cent of private institutions changed their practices to enhance communication and transport more effectively through the referral system (Table 5.2). As a consequence of the CEMD findings, an incremental budget was provided for establishing alternative birthing centres and improving facilities in existing health centres; improving communication to facilitate referral and retrieval of obstetric emergencies; conducting national and state training; and improving work processes, including the use of partogram for home deliveries, the maintenance of home-based maternal health records, and the development of clinical protocols. Furthermore, in the early 1990s, many of the maternal deaths that occurred in private facilities were due to insufficient trained staff, or lack of access to blood supply. After reviewing the death audits, the public and private hospitals reached an agreement for private hospitals to move emergency maternal cases to government hospitals. This agreement allowed the private sector to maintain its client base and income while ensuring proper care for patients.

Table 5.2 Service Changes Made by Government and Private Facilities Due to CEMD Findings, Malaysia, 1996

Category of Change	Government Facilities (%)	Private Facilities (%)	Action Taken
Change in practices	68	72	Improved communications, telephones, transport
Training	67	–	Training to address remedial problems
Changes in protocols	61	77	Adjusted in clinical protocols to better fit the local situation
Staffing	44	–	More staff added
Infrastructure	40	68	Equipment upgraded
Budget	30	–	Budget increased to support activities

Insights gained

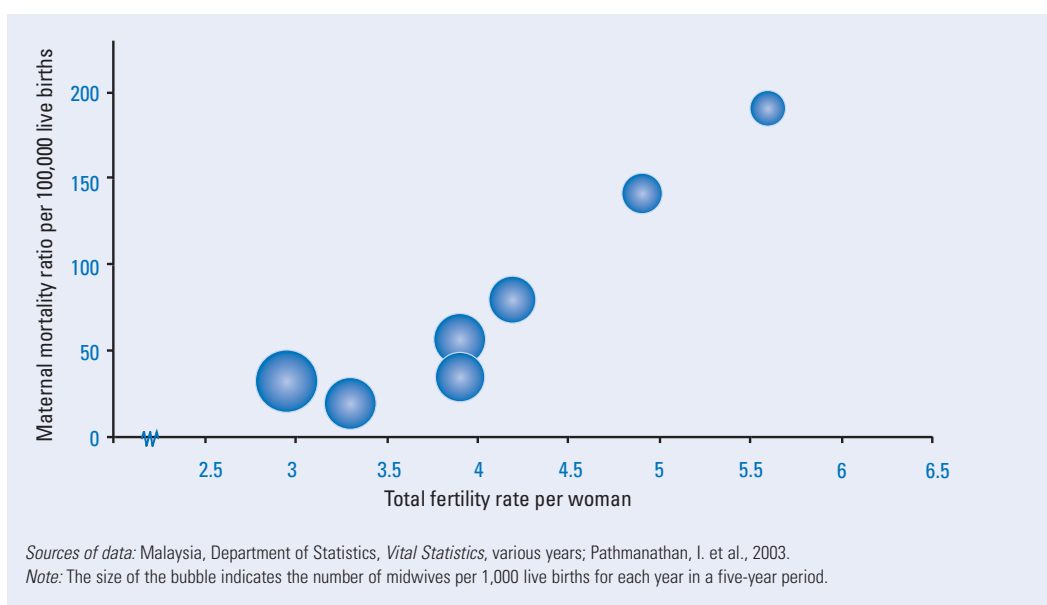
Maternal mortality declined dramatically in post-Independence Malaysia through the formulation of coordinated and targeted strategies that have been implemented in a phased manner with sustained professional commitment at national, state, and district levels. Malaysia has utilized a flexible approach, encouraging local initiatives that are sensitive to the socio-cultural, religious, and traditional environment of women and the community.

An integrated approach

This integration of maternal health into the overall health system, rather than as a vertical programme, has helped to ensure continuity and allowed it to remain high on the national health agenda. The contributory factors of maternal mortality extend beyond health and health-care factors and hence maternal health benefits from multisectoral synergies.

Improved individual welfare and quality of life, as a result of poverty eradication and education programmes, as well as the empowerment of women, have been factors in improving maternal health and lowering maternal mortality in Malaysia. For example, as the total fertility rate decreased over time, the maternal mortality ratio also decreased. During the same period, the increase in the number of midwives per 1,000 live births was also related to the decline in MMR levels (Figure 5.6).

Figure 5.6 As Total Fertility Rates Decrease and the Number of Midwives per 1,000 Live Births Rises, the Maternal Mortality Ratios Decline, Peninsular Malaysia, 1965–2000



Malaysia adopted a systems approach in the design of its maternal mortality reduction strategies for Safe Motherhood. The systems approach was implemented in a phased and continuous manner. This approach has enabled a combination of several reinforcing interventions which have led to changes in policy, clinical practice, community mobilization and education, organizational management, and capacity building. These changes have benefited the whole health system, which in turn provided gains to maternal health.

Enabling skilled attendance at birth at the community level

The initial programme approach for increasing skilled attendance at birth focused on the community level, rather than on institutional deliveries at hospitals. A primary focus was on the poor and underserved rural areas. As a result, public sector investments were made at the community clinics and health centres in order to bring a comprehensive range of services that were provided for the most part without charge, closer to the

community. Upgrading the skills of the community nurses was a key strategy, particularly in conducting home deliveries.

From the mid-1980s, the programme emphasis shifted to a more selective approach. Efforts were made to promote institutional deliveries for pregnant women with identified high-risk factors so that they could access emergency obstetric care, and to prevent delays in referrals and transportation. As a result, institutional deliveries rose dramatically to 95 per cent in 2000, compared with 55 per cent in 1985 (Table 5.1).

The health facilities, particularly community clinics, developed close relationships with the community. These facilities involved community groups and individuals, religious leaders, and key decision makers to mobilize community awareness and support, especially for women and families in need. Mobilizing TBAs and community motivators has enhanced awareness that appropriate measures taken can prevent maternal death.

Innovative programme approaches

Continual improvements to enhance quality through innovation underpins Malaysia's programme success in maternal health. Innovation is supported by regular reviews of progress and refinements of interventions as needed through the processes of quality assurance and confidential enquiry. Maternal deaths are openly discussed in a non-judgmental environment and remedial action taken to address weaknesses. To improve client friendliness, emphasis is also given to enhancing clinical and communication skills. The strong commitment of health professionals, who took ownership of the problems, has contributed to sustaining a quality monitoring system.

Regular monitoring of factors affecting maternal health takes place through the Health Management Information System. At the national and state levels, trend analysis is conducted twice a year through the CEMD to review progress and to make necessary adjustments. In addition, each district has specific indicators for quality that are being tracked and supplemented with ad hoc and special studies.

Future challenges

Sustaining maternal mortality at Malaysia's current low level, and reducing it even further, requires strong commitment, human and financial resources, and innovative programme strategies. Every pregnancy faces risk, thus necessitating continuous alertness and responsiveness on the part of the health system. Continued monitoring of maternal deaths, coupled with improvements in access and quality of care, is essential to further reduce maternal mortality. The shift from direct to indirect causes of maternal deaths requires greater involvement of multidisciplinary professionals and sectors (including NGOs, and religious leaders) to address these more complex factors of maternal mortality.

Malaysia's success in reducing maternal mortality has been the result of a synergy of a wide range of policies, strategies, and programmes. These have addressed the crucial

determinants of maternal mortality, from access to services through socio-economic, cultural, educational, gender, and poverty dimensions. The ability to sustain multi-agency support and to keep maternal health high on the policy agenda will require continued advocacy.

Target groups

Addressing ethnic group disparities in maternal mortality levels is a continuing challenge for health policy-makers. Increased efforts are required to reduce the level of the MMRs of the *Bumiputera* and Indians to that of the Chinese.

Similarly, the high MMR level of migrant women is a continuing challenge. In 2000, some 42 per cent of maternal deaths were to non-Malaysian women. Migrants, especially those lacking proper documentation, often have limited access to maternal health services. Unwanted pregnancies, especially among migrants, have resulted in attempts to abort pregnancies through medication or traditional means, self-conducted deliveries with no prenatal care, and abandonment of newborns. There is a need to target those in need with a full range of reproductive services and information, and there is also a responsibility to provide for pregnancy and delivery care for migrants and other high-risk vulnerable women in a humane and acceptable manner.

Implications of delivery trends

Over time, preferences have changed markedly from home to institutional deliveries in government and private health facilities. There is a need for establishing more alternative birthing centres, whether as separate facilities, or as an expanded concept of health centres, to provide for safe deliveries closer to communities and to prevent overcrowding of maternity wards/units of hospitals. These facilities will need to deliver the full range of maternal and perinatal services, including family planning, management of abortion complications, and counselling. They should be staffed by skilled professionals, be adequately equipped for basic essential obstetric care, and have provision for referrals.

A comprehensive maternal and newborn services package

The close relationship between maternal and newborn health calls for the development of a comprehensive maternal and newborn package of services for continuity of care and the facilitation of appropriate interventions for the survival of women and their newborns. Health professionals, such as midwives, nurses, and doctors, must be equipped with the knowledge and skills for emergency care of newborns, and all health facilities should be provided with the necessary equipment and drugs.

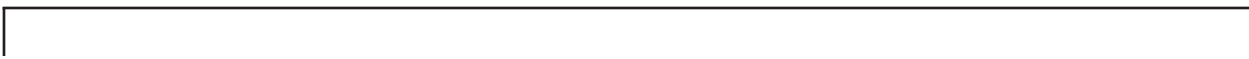
Enhancing informed decision making

The rise in educational levels of Malaysian women, together with their improved socio-economic status, has empowered them to make their own decisions and choices regarding health care, delivery, and family planning. Hence the health sector has to be prepared to meet clients' expectations and provide them with information necessary for

informed decision making. The initiatives of the 1990s in strengthening primary care, training specialist doctors for family planning, and promoting telehealth and telemedicine applications were efforts geared towards the preparation of an informed and knowledgeable society. Good use of information and communications technology, and sharing of its benefits with others, can lead to changes in health-seeking behaviour and healthier lifestyles.

Improving maternal health indicators

Maternal deaths have become relatively rare events in Malaysia. However, there is a need to ensure the quality, accuracy, and reconciliation of data obtained from the civil registration system, including conciliation of the data with those from CEMD. For analytical purposes, it would be helpful for both the adjusted and unadjusted annual maternal death figures to be made readily available. Moreover, regular and detailed reporting of contraceptive prevalence rates, including by method of contraception used and population subgroups, would provide a more comprehensive profile of maternal health.





MDG 6

Combat HIV / AIDS, Malaria, and Other Diseases

Malaysia has achieved considerable success in controlling many infectious diseases over time. A shift in disease pattern from a preponderance of communicable to non-communicable diseases tends to occur as a nation progresses from a developing to developed status. This changing disease pattern has occurred in Malaysia. Since 1970, infectious and parasitic diseases, such as tuberculosis (TB) and malaria, have declined sharply and smallpox has been eradicated. Conversely, non-communicable diseases, namely cardiovascular diseases and cancers, have markedly increased in relative proportion, rising from 24 per cent of all medically certified and inspected deaths in 1970 to around 40 per cent in 2000.

Infectious diseases have been controlled through public health measures, such as provision of safe drinking water, child immunization programmes, proper sanitation and waste disposal, improved nutrition and food quality control, as well as improved health services, in particular through a widespread network of community-based primary health care facilities. General health measures have been supported by a range of poverty-reducing programmes. While acknowledging the successes in infectious disease control thus far, there is reason to be ever cautious of the threat of emerging infectious diseases, such as the Nipah viral encephalitis outbreak, as well as the re-emergence of previously well-controlled infectious diseases, such as tuberculosis. Infectious diseases do not recognize national boundaries, as evidenced by the rapid spread in 2003 of the Sudden Acute Respiratory Syndrome (SARS).

To combat HIV/AIDS, malaria, and other diseases, the target set for MDG 6 is to have halted by 2015 and begun to reverse the spread of HIV/AIDS, and to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases, in particular tuberculosis'. These diseases have tremendous potential impact to undermine development, not least because of the rapidity with which they can spread, their multidimensional impact, and the challenges they pose towards prevention and treatment.

This chapter reviews the trends and patterns in these three infectious diseases, together with the policies, strategies, and programmes that have been used to control them. Each section concludes with some pointers to future challenges that will need to be met if MDG 6 is to be achieved in Malaysia.

Trends and patterns in HIV/AIDS

AIDS, or the Acquired Immune Deficiency Syndrome, is an infection caused by the human immunodeficiency virus (HIV). Sometime after the middle of the twentieth century, HIV infection developed into a series of epidemics in a number of countries, mainly in Africa. By 1985, HIV/AIDS had developed into a full-scale pandemic around the world with a significant presence in every continent, and by 2002, some 3 million people had died of AIDS (Box 6.1).

Box 6.1 INCIDENCE/PREVALENCE AND EPIDEMICS/PANDEMICS DEFINED

Incidence is the rate at which new cases occur in a population in a specified period (e.g. a calendar year).

Prevalence is the proportion of a population identified as cases at a particular point in time.

Epidemics occur when an infectious disease spreads progressively through and beyond a local population,

persists over a lengthy period, and reaches people throughout a country or wider region.

Pandemics are deemed to occur when such a disease expands even more widely, often through the occurrence of a series of epidemics across regions and continents eventually reaching worldwide proportions.

Source of data: UNFPA, 2003.

The first case of HIV infection diagnosed in Malaysia was reported late in 1986. By 2003, the reported cumulative number of cases amounted to some 58,000. Of these, slightly more than 6,000 persons, 11 per cent, had died of AIDS (Table 6.1). The numbers presented in Table 6.1 reflect only those who have been reported. About 80 per cent of reported HIV/AIDS cases occur among those aged 20-39, the younger and potentially more productive segment of the nation's population.

Table 6.1 Cumulative Number of Reported HIV and AIDS Cases, Malaysia, 1990–2003

Year	HIV*			AIDS			Deaths		
	Male	Female	% Female	Male	Female	% Female	Male	Female	% Female
1990	978	14	1.4	23	0	0.0	14	0	0.0
1991	2,719	67	2.4	81	2	2.4	24	9	27.3
1992	5,162	136	2.6	151	5	3.2	68	11	13.9
1993	7,603	202	2.6	215	12	5.3	118	16	11.9
1994	10,892	306	2.7	313	19	5.7	192	22	10.3
1995	14,929	467	3.0	531	34	6.0	342	37	9.8
1996	19,335	658	3.3	858	54	5.9	601	49	7.5
1997	23,062	855	3.6	1,396	84	5.7	1,050	73	6.5
1998	27,389	1,152	4.0	2,214	141	6.0	1,705	107	5.9
1999	31,701	1,532	4.6	3,328	227	6.4	2,529	157	5.8
2000	36,327	2,013	5.3	4,399	324	6.9	3,354	214	6.0
2001	41,799	2,479	5.6	5,587	438	7.3	4,254	289	6.4
2002	48,148	3,108	6.1	6,655	563	7.8	5,077	353	6.5
2003	54,231	3,781	6.5	7,594	700	8.4	5,710	420	6.9

Sources of data: Malaysia, Ministry of Health, 2003; Malaysia, Ministry of Health, *Annual Report*, various years.

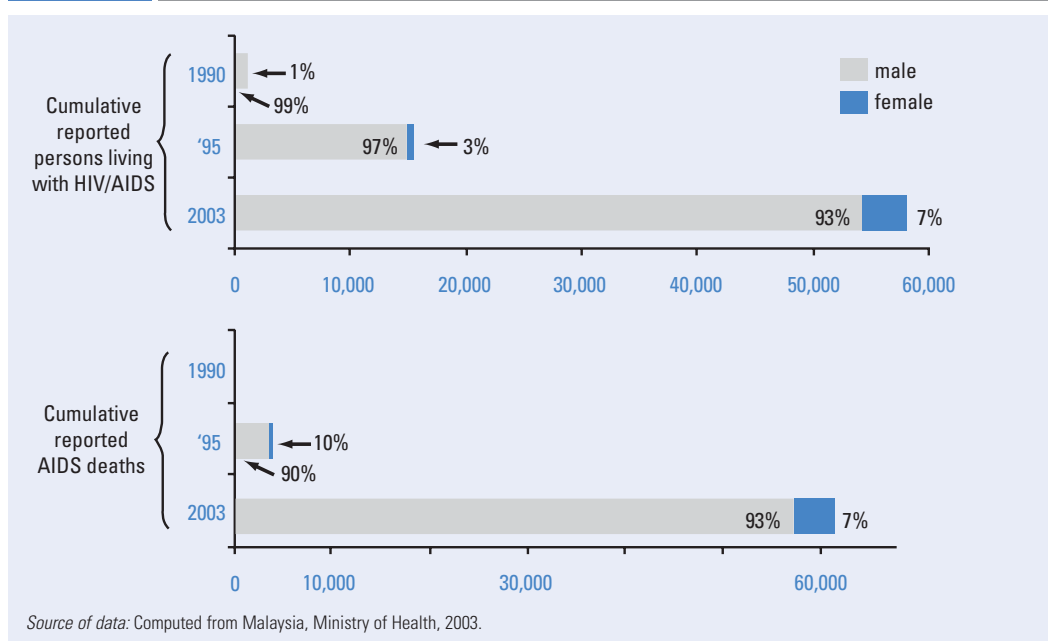
* Inclusive of AIDS cases.

The detection of HIV infection in the country may be affected by the policy on HIV screening which requires testing for eight groups: (i) women receiving antenatal care in government facilities, (private practitioners are encouraged to carry out HIV testing on the

small proportion of antenatal patients using private facilities, but this is not a universal practice); (ii) blood donors; (iii) inmates of drug rehabilitation centres; (iv) high-risk prison inmates (viz., substance abusers, drug dealers, and sex workers); (v) confirmed TB cases; (vi) STD cases; (vii) patients with suspected clinical symptoms, and (viii) traced contacts of HIV infected persons. Routine screening was implemented for selected target groups in 1989 and expanded over a period of time to cover the eight groups above. Moreover, there is an increase in the number of centres providing avenues for voluntary counselling testing.

The rise in number of AIDS deaths has been even more dramatic from 14 in 1990 to 6,130 in 2003 (Table 6.1 and Figure 6.1). Based on the World Health Organization (WHO) classification, the record to date classifies Malaysia as a country experiencing a concentrated epidemic, since HIV prevalence has been less than 1 per cent among the general population, but consistently higher than 5 per cent among injecting drug users (IDUs) over the past 10 years. In Malaysia the HIV/AIDS epidemic is at an early stage and may not have peaked. Low prevalence may be a poor indicator of future prevalence and impact owing to the long wave nature of the disease, in terms of its biological spectrum and, even more so, its social and economic sequelae.

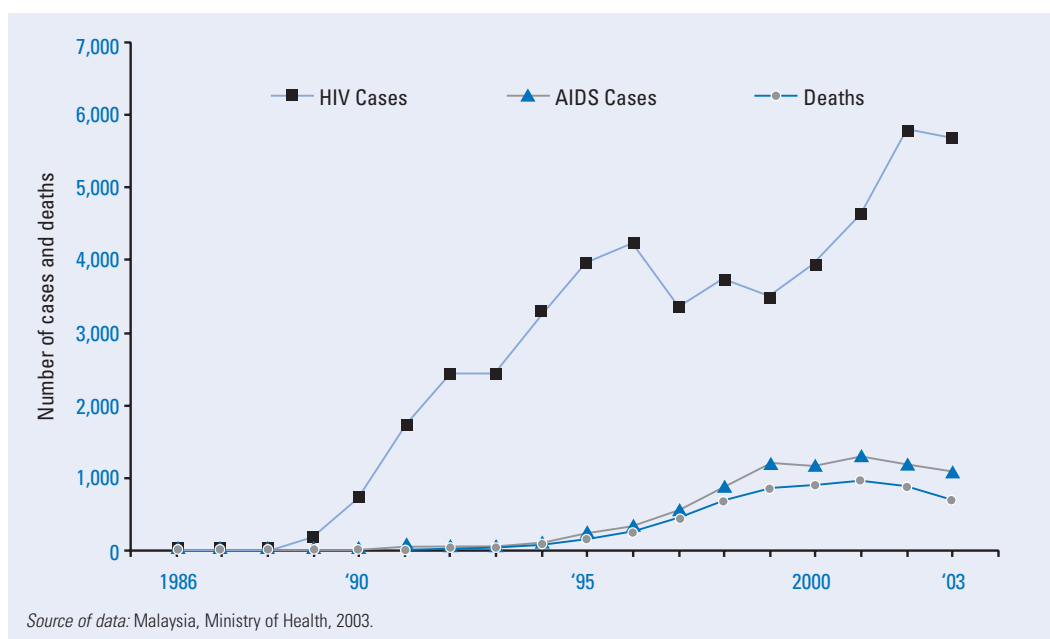
Figure 6.1 HIV/AIDS, Malaysia, 1990, 1995, and 2003



In terms of new reported HIV infections, the number diagnosed per year rose sharply throughout the 1990s, reaching some 7,000 in 2002 (Figure 6.2). The number declined by 3 per cent in 2003 (Figure 6.2). After a lag of approximately five years, the increase in AIDS cases and deaths followed suit from 1995, but the level seems to have stabilized from

about the year 2000. From the trends in reported new HIV and AIDS cases shown in Figure 6.2, it appears that the rate of increase that was very rapid up until 1996 has moderated somewhat in the subsequent period.

Figure 6.2 Reported New HIV Infections, AIDS Cases, and AIDS Deaths, Malaysia, 1986–2002

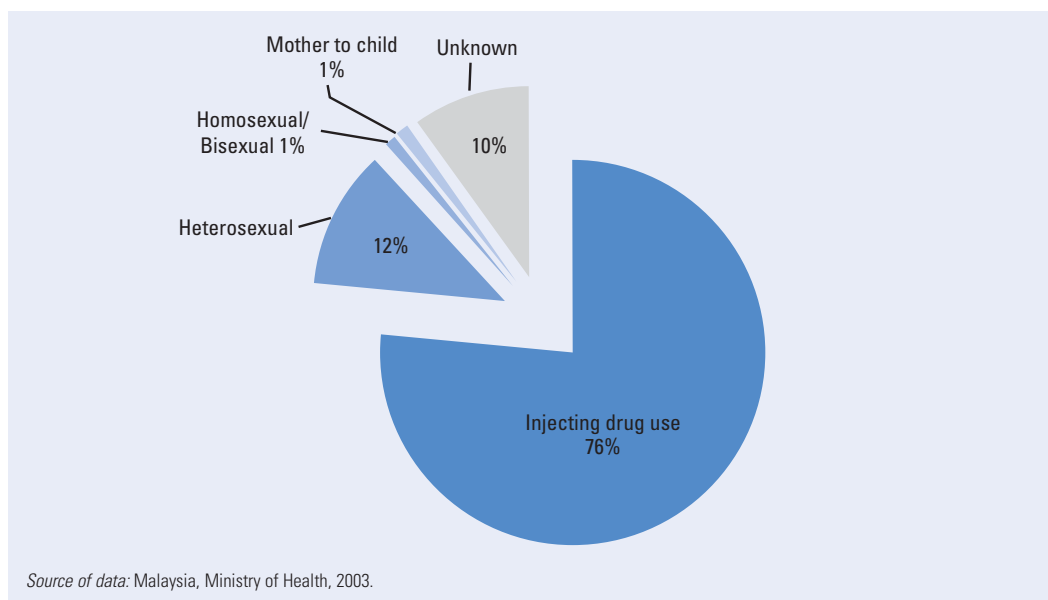


HIV by mode of transmission

WHO classifies Malaysia as having a concentrated epidemic of HIV/AIDS since the problem affects certain population groups and is not yet well established in the general population. Of a total of 58,000 HIV/AIDS cases reported by 2003, some three-quarters comprised IDUs (Figure 6.3). Hence, the likely mode of transmission is through the sharing of needles. Another 12 per cent were categorized under heterosexual activity and just 1 per cent under homosexual/bisexual behaviour. Vertical transmission from mother-to-child and blood transfusions have constituted relatively low-risk categories thus far (Figure 6.3).

While these categories serve as a simplified means of identifying risk groups, it is recognized that they are not mutually exclusive. In particular, IDUs are also likely to be sexually active and engage in high-risk sexual behaviours, such as unprotected sex and sex for drugs. Interestingly, the proportion of reported HIV/AIDS among IDU categories for the recent past has remained stable at around 80 per cent of total cases, while the proportion of detection rate of infection among drug users in rehabilitation centres and prisons has shown a declining trend.

Figure 6.3 Reported Cumulative HIV Cases by Risk Categories, Malaysia, 1986–2002 (%)



HIV cases by sex

In Malaysia, the bulk of infected cases are males who accounted for more than 90 per cent of those living with HIV and AIDS in 2003. As noted, most infections are among IDUs of whom only a small fraction are female. However, the proportion of women with HIV has increased over time, rising from 1.4 per cent in 1990 to 3.4 per cent in 1995, and reaching almost 7 per cent of cumulative cases in 2003 (Figure 6.1). One factor in this rise may be the increased coverage and accessibility to HIV testing for women. The number of women living with AIDS increased from zero in 1990 to 700 in 2003.

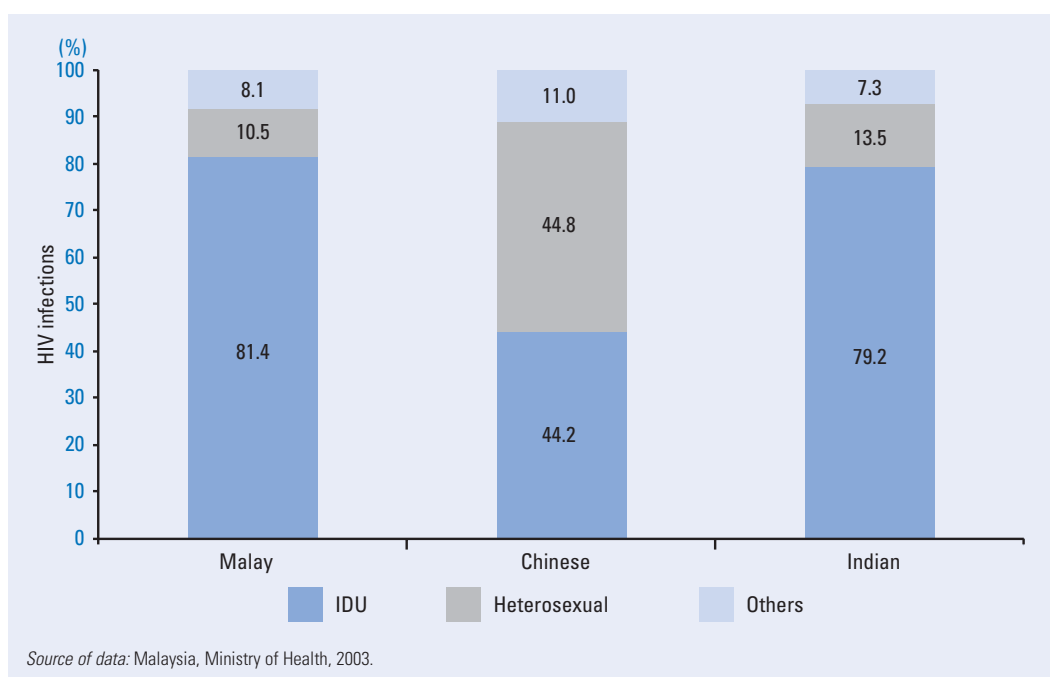
In 2002, 64 per cent of women living with HIV/AIDS were categorized as sexually transmitted and 20 per cent as IDUs. Thus, unlike the case for men, the main risk for Malaysian women is through unprotected sex, either from a regular sex partner, or from multiple partners. Globally, the special vulnerability of women and girls stemming from gender inequalities, socially and economically, is recognized as a major issue in HIV/AIDS prevention. Similar to men, however, women living with HIV/AIDS tend to be young adults. Thus the added burden of HIV/AIDS infection in women is the issue of direct social implications for the family since women are generally the main care providers for both the young and the aged.

HIV by ethnicity

By ethnicity, the cumulative number of reported HIV cases up to 2002 comprised a majority of Malays, primarily young men. This may to some extent reflect a bias because of a focus on the testing of drug users, the majority of whom are Malays, particularly IDUs. Drug dependence is a social problem that has persisted in Malaysia since the 1970s, and even before. Comparing the three major ethnic groups, there is an obvious difference in

the distribution of HIV cases by probable mode of transmission or risk groups. While the majority of Malays and Indians living with HIV are categorized under IDU, a substantially larger proportion of infected Chinese Malaysians fall under the heterosexual risk group (Figure 6.4). Only about 40 per cent of Chinese HIV cases were IDUs, compared with twice as many among Malays and Indians. Thus, the most likely risk behaviours among Chinese Malaysians are unprotected sex with multiple sex partners or a high-risk partner. These ethnic differentials in risk categories reflect underlying differences in the socio-economic conditions driving the infection within each ethnic community.

Figure 6.4 Reported HIV Infections by Ethnicity and Risk Factors, Malaysia, 2002 (%)



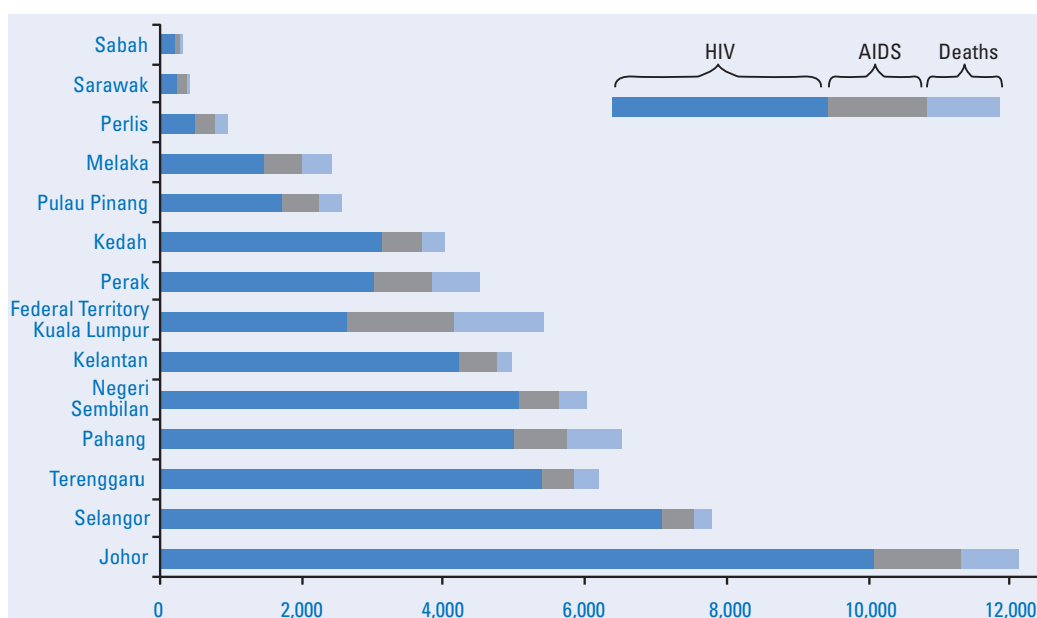
State differentials

The geographic distribution of cumulative HIV/AIDS cases in Malaysia show that the majority, by far, were reported in Johor, followed by Selangor (Figure 6.5). The statistics on HIV/AIDS by state reflect the place where the infection has been diagnosed and not the place of birth of the person or usual residence. In most cases, it is likely that the state of diagnosis will correspond to the state of usual residence. A possible reason for the larger number of reported cases in Johor and Selangor is the high detection rate from their relatively large prisons and drug rehabilitation centres, as compared with other states in Peninsular Malaysia, as well as the relatively greater number of persons coming to hospitals in these two states for treatment. The frequency distribution pattern by state generally follows that of registered substance abusers. The apparently very low levels of HIV/AIDS in Sabah and Sarawak may partly reflect the very low

population of IDUs in these states, as compared with Peninsular Malaysia. Testing facilities in health clinics and hospitals are increasingly available in these two states.

The highest number of AIDS cases and AIDS deaths was reported in Kuala Lumpur. This is due to the availability of medical treatment, referral, and support facilities in this large urban centre. Hardly any AIDS deaths have been reported in Sabah and Sarawak.

Figure 6.5 Cumulative Number of HIV Infections, AIDS Cases, and AIDS Deaths by State, Malaysia, 1986–2003



Source of data: Malaysia, Ministry of Health, 2003.

Children orphaned by HIV/AIDS

By the end of 2001, there were an estimated 5,500 Malaysian children under age 15 orphaned by HIV/AIDS. UNAIDS and WHO global surveillance of HIV/AIDS and sexually transmitted infections estimated that the figure could be as high as 14,000 children who have lost their mother or father or both parents to AIDS. The fate of these children, whether they face discrimination from, or are stigmatized by their circumstances, merits concern. At present, beyond the work of a few NGOs, there are no specific programmes for children orphaned by AIDS.

HIV management and primary care

Since the service was made available in 2000, the number of people who have come or have been referred to health clinics that provide HIV management at primary care level has increased annually. In 2002, 5,800 cases have been managed at 208 health clinics compared to 3,200 cases in 2001, representing an increase of 83 per cent. About 82 per cent of the HIV patients received counselling and supportive therapy, while 15 per cent

were given chemoprophylaxis for opportunistic infection and only 3 per cent received anti-retroviral therapy (ART). The proportion of HIV/AIDS patients under ART is relatively small because most eligible cases are followed up at hospitals. In order to increase coverage of ART in primary health care settings in line with WHO's 3 x 5 initiative, the MOH has increased the number of Family Medicine Specialists.

Enabling environment

Government engagement

The Malaysian government has adopted a multisectoral approach in its efforts to control HIV/AIDS and has increasingly supported measures to respond to the pandemic. This includes involving sectors other than health, such as education, information, and drug agency, as well as NGOs, in the many aspects of AIDS prevention, treatment, care, and support. A Taskforce on AIDS was set up before an AIDS case was first detected in the country in 1986.

In order to provide a more comprehensive response, an Inter-Ministerial Committee chaired by the MOH was established in 1992 to advise the Cabinet on policies, issues and strategic plans. A National Technical Committee was set up to streamline patient care, prevention and control, surveillance, laboratory services, training, and research. In addition, a multisectoral National Coordinating Committee on AIDS (NCCA) chaired by the Secretary-General of MOH was established to facilitate collaborative inter-sectoral actions on HIV/AIDS. The MOH has also facilitated the formation of the Malaysian AIDS Council (MAC) in 1993, an umbrella body of multisectoral NGOs involved in HIV/AIDS activities, in order to coordinate various outreach activities. The NCCA is supported by a state coordinating committee, with AIDS action teams being responsible for the programme at the district level.

AIDS was gazetted as a notifiable disease in 1985. Under the Prevention and Control of Infectious Diseases Act 1988, all forms of HIV infections must be notified to the nearest district health authority. In 1993, a Disease Control Division was created in the Public Health Department of the MOH which included an AIDS/STD (sexually transmitted diseases) section. Consultation and collaboration on HIV/AIDS are also maintained with international organizations such as WHO, United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), and UNAIDS. The government has recognized the NGOs in HIV prevention and has, since 2002, allocated RM4 million annually for 10 years to the Malaysian AIDS Council (MAC), which coordinates NGOs working on AIDS. MAC provides funding, technical support, and resources, and has taken a visible advocacy and leadership role. NGOs, some of which are supported through funding from government and international agencies, such as UNFPA, play a lead role in addressing sensitive aspects of AIDS prevention, which includes encouraging, as may be appropriate, the use of condoms and clean syringes.

National policies

The objectives of the national AIDS programme in Malaysia are consistent with WHO's Global Programme on AIDS, namely: (i) to prevent HIV transmission and to control its spread; (ii) to reduce the morbidity and suffering associated with HIV infection; (iii) to mobilize national resources within the government and non-government sectors to achieve the above objectives; and (iv) to promote international collaboration and cooperation among the nations of the world to prevent and control AIDS.

The MOH works with other ministries in the fight against HIV/AIDS through the National Committee on AIDS and the National Strategic Plan. Inter-agency and intersectoral collaboration is emphasized in recognition of the fact that AIDS is not just a health issue. Relevant ministries are represented in various programmes. For example, the AIDS education programme in schools is a joint collaboration between the MOH and the Ministry of Education. The Ministry of Information supports the MOH in the dissemination of information and health education messages on AIDS through the radio, television, and mobile information units.

Raising public awareness and knowledge on HIV/AIDS has been a focus of the MOH since it formulated its Plan of Action in 1988. In collaboration with the Department of Religious Affairs, MAC, and UNDP, the MOH has been seeking the involvement of religious leaders, and their participation in joint efforts to educate and to initiate or support community programmes related to HIV/AIDS (Box 6.2). Other targeted interventions are carried out by relevant NGOs and international organizations.

Box 6.2 SEEKING SUPPORT FROM MUSLIM LEADERSHIP

To prevent the spread of HIV/AIDS and reduce its impact, the mobilization and involvement of all in society is crucial. UNDP in Malaysia has been a strong advocate of the involvement of religious leaders, in particular, Muslim religious leaders. In June 2001, UNDP, in partnership with the MOH, the Department of Islamic Religious Affairs, and the Malaysian AIDS Council (MAC), initiated a three-year project to involve Islamic religious leaders in the response to HIV/AIDS.

Objectives

The primary objectives are: (i) to develop a methodology for increasing awareness of HIV/AIDS among religious leaders and within Muslim communities; (ii) to enhance the knowledge of the disease and to promote appropriate action for prevention, care, and support; (iii) to develop a strategy for the involvement and commitment of Islamic religious leaders—a process that focuses on building commitment and increased involvement.

A comprehensive training manual has been developed through the project to help achieve these objectives.

Challenges

Convincing Muslim religious leaders at community, as well as government level was challenging for several reasons: (i) they don't want a special focus on Islam and HIV; (ii) they don't see HIV/AIDS as a health issue; (iii) they are wary of the sensitivity attached to the topic of HIV/AIDS; and (iv) religious leaders were unaware that HIV/AIDS is a growing problem in Malaysia.

Lessons Learned

The process of finding key partners in the Department of Religious Affairs and finding a key spokesperson, as well as trusted trainers, turned out to be the key ingredient for the success of the project. Building partnerships has also been of crucial importance for upscaling activities. These partnerships helped to build a consensus on the content of the training manual and of the organization of national workshops. This manual has subsequently been used for training at all levels, with all partners taking ownership of it. It will also be used as a resource in the Department's training programmes.

Programmes

HIV/AIDS prevention, control and treatment programmes in Malaysia, including surveillance, are driven through multi-stakeholder interventions, especially by the government, but also by NGOs, civil society, and international agencies. Programmes range from activities in prevention to treatment and care, and include fund-raising.

HIV/AIDS data collection

Under the Prevention and Control of Infectious Diseases Act 1988, all forms of HIV infections must be notified to the nearest district health authority. In addition, various surveillance strategies have been initiated, including routine screening, HIV sentinel surveillance, and *ad hoc* studies, such as those on commercial sex workers. Surveillance is carried out to obtain data on the epidemiological characteristics and profile of the disease, including risk factors, age, sex, ethnicity, and emerging groups at risk.

Routine screening has been carried out on all blood donors since 1986. Since 1989, routine screening has also been carried out among injecting drug users and sex workers in correctional institutions and at all drug treatment and rehabilitation centres. This has been expanded to prisons and homes for female delinquents. Malaysia had a well-developed HIV sentinel surveillance system in place which started in 1994 to screen women attending antenatal clinics (ANC), patients with sexually transmitted infections, and patients with tuberculosis. Sentinel surveillance was discontinued at the end of 1997 as these target sentinel groups were included in routine screening activities. HIV screening is now an institutionalized programme and is carried out nationwide in both government and private medical facilities using WHO-recommended strategies.

At the district level, reports (from the government and private sector) on HIV/AIDS cases are submitted to the state AIDS/STD unit which then compiles reports from the districts before submitting them to the national AIDS/STD unit of the MOH's Department of Public Health, Disease Control Division. Information collected includes age, sex, date, and place of occurrence, associated risk factors, and actions taken against the spread of the disease. HIV/AIDS surveillance in Malaysia is based on nominal (with name) notification. All reporting of confirmed cases is done using a format that requires such information as the name, socio-demographic data, address, date of confirmation, risk factors, contact information and so on.

Malaysia's experience shows that a strong surveillance system is integral to efforts to combat the HIV/AIDS epidemic. The availability of data helps decision makers and health professionals to understand the diseases better and to plan intervention strategies and actions. While institutionalizing surveillance is important, experience in carrying out special *ad hoc* evaluations is equally important to respond to rapid changes in the epidemic and enable more relevant and appropriate interventions.

Safe blood

One of the earliest measures taken to control the spread of AIDS in the country was to prevent the transmission of HIV through donated blood. A safe blood programme was proposed in early 1986 and routine screening of donated blood was started in six states in April that year. This was extended to all states nationwide by the end of that year. By 2003, 52 designated screening centres in all general hospitals and most district hospitals throughout the country routinely screen all donated blood for HIV. Each centre then files regular reports to the HIV/AIDS section on the results of tests done.

Positive results are confirmed by the Institute for Medical Research, a key medical research centre in the country, which has been designated the National AIDS Reference Laboratory. A follow-up investigation is then carried out for every HIV-positive blood donor. Donor referral is also carried out using questionnaires to eliminate donors with high-risk behaviour, such as those who have or engaged in multiple sex partners, homosexual activities, or who are intravenous drug users. Donors are also required to sign a declaration that he/she is free from the risk of HIV infection.

Various rules were put in place to ensure safe donors and safe blood for transfusions, such as having voluntary, regular blood donors who do not receive payment. Replacement donors were phased out and blood banks ensured adequate blood supplies to meet the demands of hospitals so that paid donors and those with high-risk behaviours, for example, injecting drug users, do not donate blood for financial reasons. Donors are encouraged to donate blood regularly, that is, at least once or twice a year. The MOH also issued directives to the medical fraternity on the judicious use of blood transfusion for patients, including using alternatives to blood.

Every donation is screened for anti-HIV, using reliable, quality-controlled tests carried out by well-trained staff. Blood is quarantined until the anti-HIV results are available and released only after the test results are ready. Quality assurance measures include Standard Operating Procedure, documentation, regular servicing of machines, stable electrical supply, staff training, continued medical education, and computerizing of data to reduce mistakes.

The efficacy of the safe blood programme is reflected in the low number of infections from blood transfusion: 19 cases over 14 years. Nevertheless, besides clerical mistakes, HIV-infected blood can escape detection during screening due to the 'window period' of the viral infection. To reduce this possibility, alternate sites were made available for voluntary HIV testing. Yet, in 2002, five cases of infected blood were reported despite various criteria for eligibility of blood donation. This calls for an urgent need to look into procedures and other quality control measures at blood donation centres. The MOH also controls the import of blood products by centralizing procurement and importing only products that have been tested using approved methods and certified.

Prevention of mother-to-child transmission

HIV testing is carried out on all women attending government antenatal clinics after a group information and education session by a nurse or from a video presentation. Women found to be HIV-positive are given post-test counselling and free anti-retroviral treatment.

Drugs are given throughout the antenatal and intra-partum period. Infants are given drugs for the first 6 weeks of life. The HIV antibody test is done on infants at regular intervals until they are confirmed negative at 2 years of age. Follow-up is carried out on HIV-positive mothers who are also advised not to breastfeed their infants.

Since the programme first started in 1998, the percentage of antenatal mothers screened for HIV has been increasing every year. Table 6.2 shows that 93 per cent of antenatal mothers who attended government antenatal clinics throughout the country were screened for HIV in 2002, compared with about 50 per cent in 1998. Prevalence of HIV-positive mothers (pregnant women) in Malaysia has been consistently below 0.04 per cent since 1998. Considering HIV prevalence among pregnant women as a proxy, this indicates that HIV prevalence amongst the Malaysian general population is still very low. In 2002, with 92.8 per cent of mothers screened, the percentage of positive babies born to positive mothers was 4.55 per cent, which is very much lower than the estimated rate of vertical transmission—about 30 per cent without AZT (zidovudine) prophylaxis. This reduction in transmission rate is laudable in terms of clinical management.

Table 6.2 Prevention of Mother-to-Child Transmission Programme, Malaysia, 1998–2002

Year	1998	1999	2000	2001	2002
Total no. of pregnant women attending government ANC clinics	323,902	416,400	347,979	392,139	387,208
No. of pregnant women screened for HIV	161,087	276,000	286,390	343,030	359,411
Percentage	49.7	66.2	82.3	87.5	92.8
No. of pregnant women detected HIV-positive	56	89	85	79	141
Percentage	0.035	0.032	0.029	0.023	0.039
Total no. of babies delivered	56	89	85	79	110
No. of babies HIV-positive	3	5	3	1	5

Sources of data: Malaysia, Ministry of Health, *Annual Report*, various years.

With a 5.3 per cent increase in the proportion of antenatal women screened in 2002 compared to 2001, the number of HIV-infected women detected almost doubled from 79 to 141 cases among those screened under the Mother-to-Child Transmission (MTCT) Programme. The almost 80 per cent increase in 2002 from the previous year is cause for concern. Further data are required to show whether the trend continues. Heterosexual transmission was the main reported risk factor associated with HIV-infected mothers.

Education and awareness

Health education is an important part of the government's strategy towards promoting a healthy nation and is conducted on a regular basis nationwide on various health issues.

Information is disseminated through the mass media, health care facilities, schools, NGOs, and community groups.

In collaboration with the MOH and UNICEF, the government has implemented a large-scale education programme on HIV/AIDS for youths known as PROSTAR (Program Sihat Tanpa AIDS untuk Remaja) in 1996. PROSTAR, or the AIDS prevention health programme for youths, is targeted at those aged 13-25 years. The programme, which has the theme, 'Action by Youth, for Youth and Through Youth', uses peer education to disseminate messages. Activities under PROSTAR clubs include counselling, exhibitions, health camps, and economic ventures. By the end of 2003, 1,099 PROSTAR clubs had been established throughout the country and training provided to 64,000 peer counsellors, reaching out to more than 600,000 youths.

The 13-25 age group is considered a priority as about 36 per cent of HIV cases in the past few years were among those below 29 years. This corresponds with data from the National Drug Agency, under the Ministry of Home Affairs, which reported 36,996 drug addicts, new and recurring, in 2003, 45 per cent of whom were under 30 years of age, and 24 per cent, below 25 years. There is also evidence from various surveys that Malaysian youths are sexually active, without protection. For example, one study in 1994 found more than 18 per cent to be sexually active. Furthermore, a 1996 study on youths and AIDS showed a strong linkage between smoking and substance abuse, as well as, with sexual experimentation.

An intervention study was conducted to determine the efficacy of the PROSTAR programme. The study revealed a significant increase of awareness among those surveyed on the use of condoms as a prevention measure, HIV infections through injecting drug use, and the transmission of HIV infection from mother to child. However, there were still some misconceptions, including the belief that only drug addicts, prostitutes, and homosexuals were those infected. Nevertheless, the level of awareness among PROSTAR club members was higher than among non-members. Non-members were also more likely to perceive those with HIV/AIDS negatively. Based on these findings, the study made some recommendations, including simplifying messages and delivering messages through channels to which youths respond; ensuring that selected facilitators remain actively involved; and encouraging increased participation in PROSTAR clubs. Related to this, the 1996 study on youth and AIDS mentioned above also concluded that exposure to messages on AIDS does not necessarily increase awareness of AIDS among youths. The medium of AIDS education needs to be studied to ensure that messages get across to youths and that these messages result in behavioural change.

The PROSTAR evaluation shows that prejudices and misconceptions on who gets infected with HIV/AIDS remain entrenched, even after focused small-group training programmes. These misconceptions remain a barrier to HIV/AIDS prevention among the general public.

There have been mass media campaigns in the past decade aimed at raising awareness on HIV/AIDS. These have been broadcast through television and radio, as well as through posters and booklets distributed through various channels. The government, NGOs, and the private sector are involved in these efforts which have

yielded positive outcomes. Thus surveys show a growing awareness of HIV/AIDS among Malaysians but whether behavioural changes have followed suit, and have been sustained, remains to be determined.

Treatment, care, and support of HIV-infected persons

Considerable progress has been made in the area of clinical treatment in recent years. The number of people on highly active anti-retroviral therapy (HAART) has increased considerably, jumping fourfold in the last two years to about 1,500 persons. Almost all general hospitals offer treatment, with special HIV/AIDS clinics having assigned physicians in five major hospitals.

HIV-infected patients are required to attend regular follow-up treatments every three to six months. Treatment is available for all those who are compliant. About one-fifth of all people with AIDS receive HAART. The government currently subsidizes two drugs while patients pay for one. All drugs are free for pregnant women, children, government servants, and those infected from blood products. There are some efforts to import cheaper drugs. Treatment for opportunistic infections is available in all hospitals and subsidized by the government. In many state hospitals, some full-time nurse counsellors are available, based in clinics. Nationwide, there are now 10 specialists in infectious diseases (although some are under training), whereas in 1998, there were only two.

The MOH has taken measures to make ART accessible and affordable by importing cheaper generic ART drugs from India. The cost of treatment is no longer a serious issue. The MOH has also started a programme to provide ART to IDUs in closed settings through a project in Pusat Serenti Serendah, Selangor. However, seeking treatment also involves associated costs of time off work, transport, and lodging.

Role of NGOs

NGOs play a critical role in HIV/AIDS programmes and advocacy in Malaysia. Several NGOs focus on differing and complementary HIV/AIDS activities which form the main contribution to the HIV/AIDS programme in Malaysia. Many, but not all, are affiliated to the MAC, which plays a leadership and coordinating role in NGO work on HIV/AIDS. There are currently in excess of 30 organizations under the MAC's umbrella.

Notable among NGOs involved with HIV/AIDS is the long-established Federation of Family Planning Associations of Malaysia (FFPAM). This parent body of state-level organizations has a more comprehensive and widespread prevention programme through its nationwide network of 42 reproductive health clinics. Working with its state associations, it has set up youth clubs and peer groups in schools, and organized skills-building workshops with a reproductive health module that have reached thousands of youths.

The Community AIDS Service Penang (CASP) supports awareness-raising, counselling, outreach with marginalized groups, such as sex workers, and psychosocial support to people with HIV/AIDS, focusing on northern Peninsular Malaysia. Other organizations doing similar work include the Pink Triangle Foundation, the first AIDS NGO, based in Kuala Lumpur. Programmes targeted at marginalized groups include

information and counselling, referrals, shelter, basic medical treatment, care and support. About 10 NGOs offer some shelter or day care and support for people with HIV/AIDS, such as *Pelangi*, Bread of Life, Shekinah Home, Women and Health Association of Kuala Lumpur (WAKE), *Persatuan Perantaraan Pesakit Pesakit Kelantan* (SAHABAT) in Kota Bharu, Kelantan, and Intan Drop-In Society in Teluk Intan, Perak. Most shelters house less than 10 people and are urban-based. *Rumah Solehah* in Cheras, Kuala Lumpur, provides care and support, including treatment, to HIV-positive women and children. Welcome Home Community in Batu Arang, Selangor, provides shelter and half-way houses for more than 100 persons.

Support networks for people affected by HIV/AIDS are limited. Several NGOs offer a secure environment for affected women to support each other and share experiences. A few NGOs offer peer-based treatment models in working with drug addicts. *Persatuan PENGASIH Malaysia* (PENGASIH) in Kuala Lumpur uses the 'therapeutic community' approach for its drug-dependent clients. PENGASIH also offers a drop-in centre for street-based drug users, individual and group counselling, and some outreach. Another drop-in centre is *Ikhlash*, also based in Kuala Lumpur which offers basic services, such as cleaning wounds and offering free meals. A significant number of prisoners are infected with HIV/AIDS, for which Malaysian Care, an NGO, offers an awareness programme, peer counselling, and simple nursing care. There are a few other NGOs not affiliated to MAC that provide support networks for people living with HIV/AIDS (PLWHA).

Future challenges

For Malaysia to halt and reverse the spread of HIV/AIDS, considerable challenges lie ahead. So far, prevalence among the general population is still low and the epidemic is concentrated. This means that there is much potential for containment provided concerted actions are taken.

Policy and strategy guidance

The National Strategic Plan, formulated in the early 1990s, will be reviewed and updated to comply with current national priorities related to HIV/AIDS as well as to meet the United Nations General Assembly Special Session (UNGASS) prevention and care targets. This process of revision will involve all key stakeholders to ensure a coordinated, multisectoral, and effective response. Implementation will also require the mobilization of additional resources to upscale many ongoing programmes and projects.

Focusing prevention

In many countries, including Malaysia, injecting drug users and sex workers remain the most important focal points for effective HIV prevention. Therefore, there is a need to implement a basic package of HIV prevention services and ensure access to vulnerable

groups, especially women and girls. The relatively high prevalence among young people and substance abusers necessitates programmes that target these groups to change their behavioural patterns.

Injecting drug users. Injecting drug users account for some 75 per cent of HIV/AIDS cases. The government takes a very strong stance against illicit drug use and aims to have a drug-free society by 2015. However, severe penalties have not curtailed substance abuse and dependence in Malaysia. In 2003 alone, 20,200 new substance abusers were documented by the National Drug Agency, plus another 16,800 relapse cases. Suspected drug users are detained and tested and, if certified positive, are admitted to a rehabilitation centre for 18 months to 2 years. However, the relapse rate from such centres, estimated to be around 75 per cent is high. There may be a case for considering harm reduction programmes, such as substitution therapies or needle syringe programmes.

A few NGOs are working with injecting drug users, including providing halfway houses for HIV-positive discharged prisoners, as well as with drug users in the community. Consistent follow-up and support is important to ensure that rehabilitated drug users do not revert to their habits. These NGOs have reported some successes but their funding and manpower continue to be limited. In addition, work with drug users is not considered part of the national HIV prevention strategy.

Sex workers. The sex industry in Malaysia is illegal and clandestine. Many sex workers operate part-time, freelance, or through entertainment outlets, such as karaoke bars and massage parlours. Among the general population, the concept of commercial sex tends to be confined to sex for money. Knowledge of commercial sex workers on HIV needs to be improved, given that it can spread rapidly from a small pool of infected sex workers to the general population. An NGO, WAKE, works directly with sex workers. WAKE's outreach workers see about 200 women every week in four localities in Kuala Lumpur, offering HIV education, counselling, and free condoms as well as providing a drop-in centre and a halfway house.

STI patients. Patients with sexually transmitted infections (STIs) serve as a good proxy indicator for risk of HIV infection as some STIs greatly facilitate the risk of HIV transmission. STI treatment is thus critical in HIV prevention. The government has stepped up STI treatment through a programme called Modified Syndromic Approach to STI patients started in 2000. By 2003, there were more than 120 health clinics with trained staff and laboratory support throughout the country, as well as providing STI management and HIV/AIDS education, counselling, and information.

Correcting misconceptions

Leadership at all levels is essential to address social issues arising from HIV/AIDS. The current statistics on risk groups publicized in mass media campaigns may have the undesirable effect of implanting in the public the belief that HIV/AIDS is a problem only amongst certain groups, namely, substance abusers and sex workers. The national AIDS prevention strategy will continue to give greater emphasis to project HIV/AIDS in the context of national development, and the insidious ways the disease can impede

development progress if not checked. There is a need to promote multisectoral responses to HIV/AIDS, by investing in effective prevention technologies, and increasing capacity through better training of health and community workers.

Religion and culture. Religious leaders can contribute much towards correcting public misperceptions. MAC and other NGOs are making some progress. Representatives from religious bodies have been invited to participate in various seminars/conferences and dialogues. As all religions encourage love and compassion, continued multireligious dialogue could be a starting point to correct misconceptions and discriminations of those infected with, and affected by, HIV/AIDS. Strengthening inter-faith networks could be another strategy to overcome prejudice and to provide help and care to those in need.

Counselling

Counselling, pre-tests, and post-tests for HIV-infection are an integral part of prevention and care. Counselling of people with positive test results facilitates acceptance of the results and prevention of transmission to partners; it also serves as an entry point for timely HIV/AIDS treatment, as well as a referral point for social and peer support. Counselling of people with negative test results opens the way for behavioural change to remain negative. The lack of health-related human resources and trained volunteers to provide counselling continues to be a challenge in Malaysia.

Behavioural surveys, impact studies, and data management

Experience in many countries has shown that once HIV infection enters a population subgroup, it can spread rapidly to the rest of the population. Current HIV surveillance on a population sub-group provides useful information on new cases but does not adequately explain the nature and evolution of the epidemic. Second-generation HIV surveillance systems have been developed to integrate such information with 'behavioural surveillance'. These include ongoing monitoring of HIV risk behaviour among population subgroups to determine the potential for spread within that group and to other population subgroups. They can also inform and assess HIV prevention programmes.

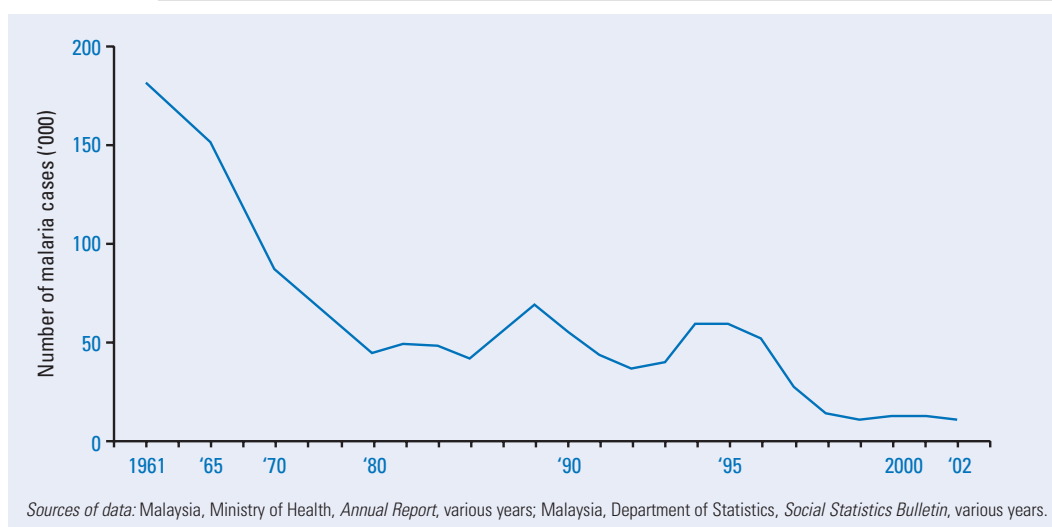
The MOH, together with WHO and local NGOs, has implemented the Behavioural Surveillance Surveys (BSS) in 2003/4. The surveys involve commercial sex workers and IDUs in five states, namely the Federal Territory of Kuala Lumpur, Johor, Sarawak, Pulau Pinang, and Kelantan.

In addition, there is a need to conduct surveys to monitor the impact of HIV/AIDS at individual, family, and community levels to gauge the level of awareness of policies and programmes. Surveys, however, can be costly, and thus resources will need to be mobilized. Ways need to be found to include relevant questions in existing routine data collection protocols, so that HIV/AIDS can be monitored through a wider range of indicators. Equally important, a data collection system should be established that ensures easy retrieval and utilization, with due attention given to the quality of the data, as well as their evaluation and analysis.

Trends and patterns in malaria

Malaysia has achieved major success in virtually eliminating malaria from urban and other densely populated areas. Before 1960, there were about 300,000 cases per year. However, the number was reduced to about 181,000 cases per annum by 1961, and major reductions continued in the following decades, dropping below 50,000 in the early 1980s to 11,000 cases in 2002 (Figure 6.6).

Figure 6.6 Number of Malaria Cases, Malaysia, 1960–2002



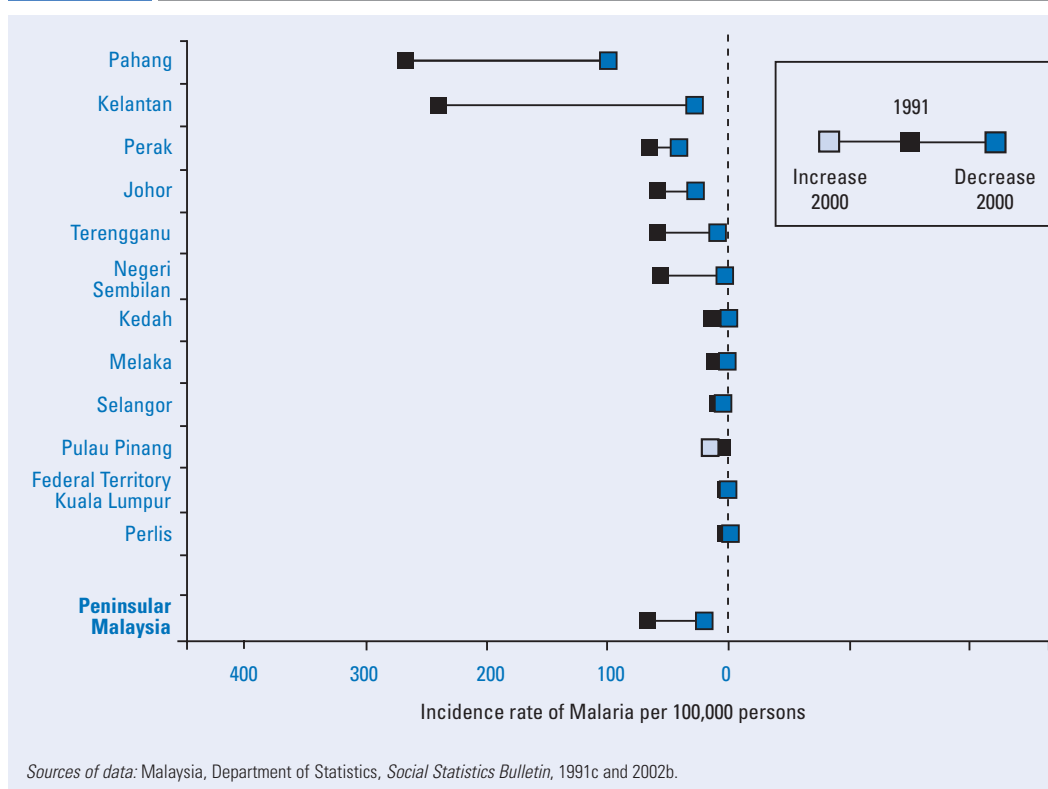
Generally, the incidence of malaria has declined from as high as 1,400 cases per 100,000 persons three decades ago to 45.2 per 100,000 persons in 2002. The number of medically inspected and certified deaths from malaria also declined from 62 cases in 1991 to 20 in 1998 (Malaysia, Department of Statistics, 2000_a). In terms of vector-borne diseases, Vital Statistics figures on notifiable cases available for 2001 showed that there were more cases of dengue and dengue haemorrhagic fever (16,400) than malaria (12,800) in the country.

In Peninsular Malaysia, the greatest declines in malaria during the 1990s have been in those states with the highest rates, namely, Pahang and Kelantan (Figure 6.7). These states are also among the less developed and least urbanized areas of Peninsular Malaysia. Figure 6.7 further shows that certain areas in Peninsular Malaysia, namely Perlis, the Federal Territory of Kuala Lumpur, Selangor, Melaka, and Kedah, had virtually eliminated malaria by year 2000. However, the number of cases in the less developed and more rural East Malaysian states of Sabah and Sarawak (approximately 216 and 142 per 100,000 respectively in 2001) remain far higher than those in the states in the Peninsula.

In addition, the risk of malaria is high among the *Orang Asli*, who live in the rural interior regions. Malaria control in these groups is beset by poverty and its social

correlated factors, such as poor housing and environmental conditions as well as poor access to health care. However, if the decreasing trend achieved in Peninsular Malaysia continues nationwide, it is anticipated that local transmission of malaria would be halted with effective elimination of the endemic by the year 2015.

Figure 6.7 Incidence of Malaria, Peninsular Malaysia, 1991 and 2000



Programmes

In 1967, following a successful pilot study carried out by WHO during its Global Eradication Campaign (1955 to 1969), Malaysia embarked on a Malaria Eradication Programme (MEP) with the aim of eradicating the disease by 1982. Although it did not achieve this goal, the MEP laid a foundation in terms of infrastructure and control strategies for the subsequent Anti-Malaria Programme (AMP). Restructuring of health services saw the AMP expanded into the Vector-Borne Diseases Control Programme in 1985 and fully integrated into the public health programme in 1990. District health managers were given financial flexibility in implementing policy and managing funds. Six-monthly indoor spraying of houses in malarious areas with insecticides is still carried out

but the number of houses being sprayed has declined progressively over the years as areas are declared malaria-free.

Vector-Borne Diseases Control Programme and strategies

The MOH has long focused efforts on the control of vector-borne diseases, a major source of health burden for the country. At the national level, the Vector-Borne Diseases Control Programme (VBDCP) is a dedicated section under the Disease Control Division of the Public Health Department, MOH. It is a policy-making body that oversees the overall budgetary and human resource requirements, coordination, implementation, and monitoring of the control programme. At the state level, the VBDCP Section coordinates and monitors the implementation of control activities. The specific objectives of the national malaria control programme are (i) to reduce malaria morbidity and mortality, and (ii) to prevent re-establishment of malaria in areas with no indigenous cases

To achieve these objectives, the VBDCP formulated a series of integrated, multi-pronged control strategies that include:

- stratification and mapping of malaria risk areas
 - identifications of malarious, malaria-prone, and malaria-free areas
- early case detection
- parasite control: early and appropriate treatment
- effective and sustainable mosquito vector control
- protecting the human host
 - protection from and prevention of infection: bed-nets are distributed and treated free-of-charge in malarious areas
 - promotion of early treatment seeking behaviour if infected
- surveillance activities
 - early and quick case registration, notification, and recording by the reporting system
 - immediate case investigation
 - monitoring of process and impact indicators
- implementation of the quality assurance programme procedures
- research contributing to the formulation and evaluation of health programmes.

Insights gained

The success Malaysia has achieved in combating malaria is the product of several factors: an understanding of the location-specific epidemiology of malaria throughout the country; the adoption of a combination of strategies targeting the host, parasite, mosquito, and environment; the integration and coordination of infrastructural resources with good collaboration between key players; and the formulation of a clear policy, with defined targets and legislative support.

The reorganization of the public health care system from a three-tier to a two-tier system in the 1990s, comprising a widespread distribution of rural health clinics (*klinik desa*) and the better equipped community clinics (*klinik kesihatan*) in the ratio of 2.3:1, makes primary health care accessible to a majority of the population. This has contributed to the early detection and treatment of malaria cases, distribution of prophylaxis, as well as dissemination of information, through educational and communication activities.

That malaria has persisted in rural, more isolated areas, primarily in Sabah and the interior regions of Sarawak and Pahang merits attention. Travel advisories still include malaria prophylaxis for these areas which include national parks, now popular tour destinations, and interior areas with development projects, such as highway and dam construction. Furthermore, as the incidence of malaria declines in the country, the pool of non-immune groups within the population is expected to increase. This group will be exposed to risk as domestic travel becomes more feasible, particularly for nature or adventure forays into the undeveloped hinterland. There is thus a need to identify in greater detail and address the barriers to effective malaria control in the persistent malaria regions in the country as they bear the potential of an epidemic or re-establishment of the disease.

Future challenges

Malaysia has been successful in controlling malaria in the most endemic areas and increasingly extensive areas have been declared malaria-free. The main challenges now relate to sustaining these achievements. They include (i) overcoming the danger of complacency, that is, maintaining pressure on the host-vector-environment transmission dynamics, and maintaining active surveillance and early warning systems; (ii) preventing the re-introduction of malaria in malaria-prone areas; (iii) ensuring the early detection and effective management of a malaria epidemic, that is, people no longer exposed to infection gradually lose their general immunity, and outbreaks can still occur if changes to the environment facilitate proliferation of the mosquito vector; (iv) dealing with the problems of drug-resistant strains of malaria; and (v) declining diagnostic and management skills among clinicians—malaria is rare in urban areas and is essentially a rural health problem.

Trends and patterns in tuberculosis

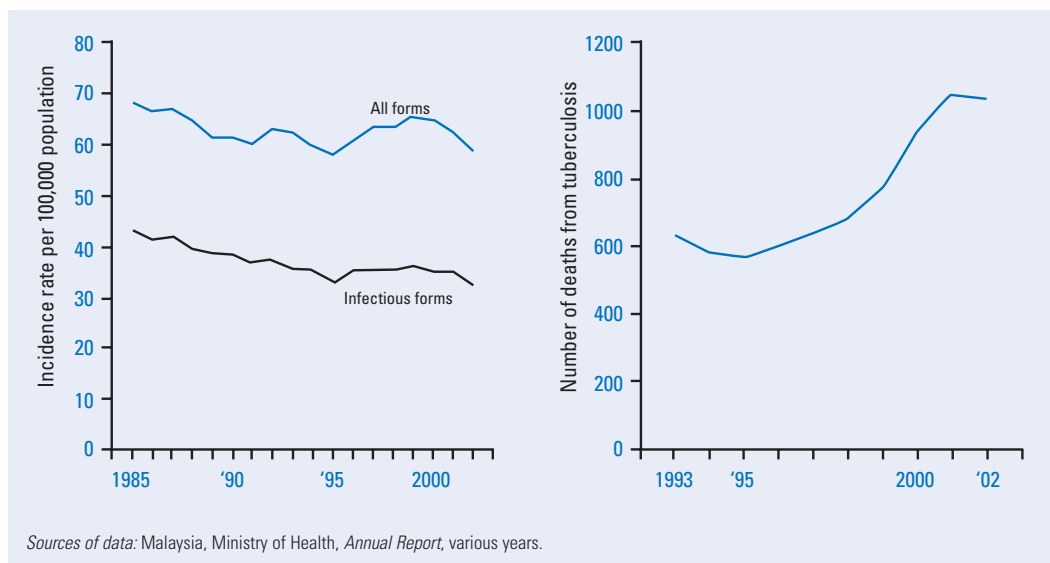
While the occurrence of Tuberculosis (TB) has historically been associated with weak health systems, poverty, and overcrowding, additional contemporary phenomena, such as human mobility, multi-drug resistant TB, and co-infection with HIV/AIDS, are raising new issues and difficulties in treating the disease and controlling its spread.

Half a century ago, TB was a leading cause of death in Malaysia. Now, early in the twenty-first century, despite reductions in poverty and improvements in the control and treatment of the disease, TB remains a significant health issue with more deaths each year than from any other notifiable infectious disease, including AIDS and malaria. Indeed, there were more new TB cases (14,400) notified in 2002 than for any other infectious disease apart from dengue fever. TB also had the highest number of deaths (1,300) among infectious diseases in 2002, far exceeding those from dengue or malaria, which recorded around 50 deaths each. Only the toll from AIDS, with 881 deaths, approached this figure and the recent emergence of TB as a co-infection with HIV/AIDS is a matter of growing concern.

Significant progress was made in the 1980s in reducing the incidence of all forms of TB, with notified cases dropping from 68 per 100,000 in 1985, to about 58 per 100,000 in 1995. However, notification rates followed an upward curve peaking around 65 per 100,000 in 1999 before reverting to about 59 per 100,000 by 2002 (Figure 6.8). The upward trend observed in the latter half of the 1990s was less obvious for infectious forms of TB, suggesting that non-infectious forms may be contributing to the (possibly temporary) change in trend. Although the incidence rate in the population has decreased over the past 15 years as shown in Figure 6.8, the number of TB deaths has continued to increase (Figure 6.9).

Figure 6.8 Incidence Rate of Tuberculosis, Malaysia, 1985–2002

Figure 6.9 Number of Tuberculosis Deaths, Malaysia, 1993–2002



Following the implementation of the WHO-recommended DOTS (directly observed treatment, short course) strategy in 1999, the TB incidence rate started to decline from the year 2000 onwards, albeit at a rate of less than five points annually (Figure 6.8). A somewhat similar pattern appears to have occurred in the number of TB deaths which it rose through the mid-1990s but declined in 2002 (Figure 6.9). If the post-2000 decline were to continue at an average rate of four points per year, Malaysia will likely achieve the

2010 target in TB control set by the MOH (Table 6.3) and the MDG target of halting and beginning to reverse the incidence of TB by 2015.

Table 6.3 Incidence Rate of TB (Based on Case Notification), Malaysia, 2002

New cases detected	2010 target	2002 status
TB (All forms)	40/100,000 population	58.7/100,000 population
TB (Infectious forms)	20/100,000 population	32.4/100,000 population

Sources of data: Malaysia, Ministry of Health, Annual Report, various years.

However, at present, WHO ranks Malaysia as a country with an 'intermediate burden' of TB. WHO describes the country's TB notification rate as 'high relative to its level of development' and warns that, given favourable conditions, an escalation in incidence in TB could readily surge to epidemic proportions, implying that a sustained and effective TB control programme is essential.

State differentials

Among the states and federal territories, Sabah and Kuala Lumpur have recorded incidence (notification) rates for TB above 100 per 100,000 persons. Four other states in the country have recorded incidence rates of 50 to 100 cases per 100,000 persons, namely Sarawak, Kelantan, Perlis, and Pulau Pinang. The distribution of these rates shows that there is still a strong association between TB and rural poverty (in Perlis, Kelantan, Sarawak, and Sabah), size and mobility of migrants/migrant worker populations, especially in Kuala Lumpur and Sabah, and urban poverty and overcrowding in Kuala Lumpur and urban areas in Sabah. The rates in Kuala Lumpur tend to be inflated due to out-of-state patients being referred to or seeking treatment in the city.

Unlike malaria, the TB incidence rates increased in all states in Peninsular Malaysia over the past 10 years up to 2000, except in the north-eastern state of Kelantan (Figure 6.10). The increases in each state coincide with the rising trend in incidence observed in the latter half of the 1990s for Malaysia generally, as described above.

Tuberculosis by age

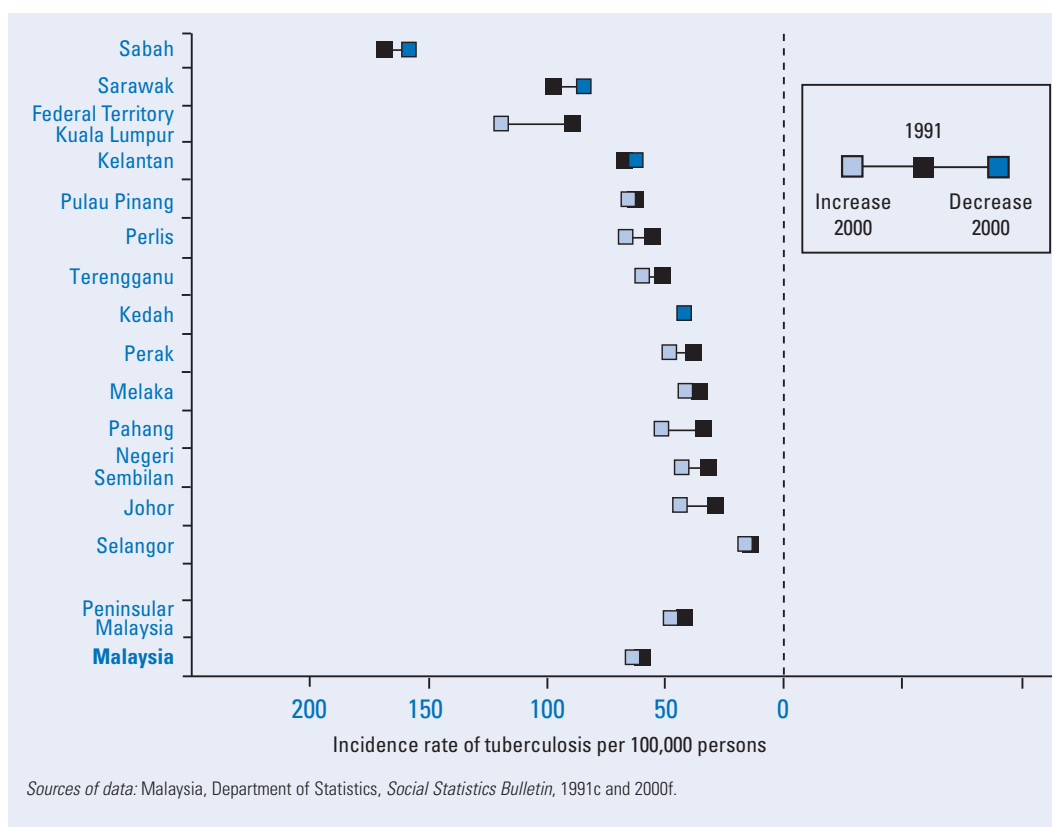
The incidence of TB is low amongst children, but is much higher for young adults and those over 60 years of age. In 2002, over three-quarters of those infected with TB were aged between 15 and 59 years and about one-fifth were over 60 years of age. Only 3 per cent were under the age of 15.

Tuberculosis among immigrants

The inflows of foreign workers pose some risk in raising TB rates, as the incidence of tuberculosis is much higher in neighbouring countries, such as Indonesia (about five times) and the Philippines (about four times), than in Malaysia. Migrant workers are also sourced from other South-East Asian nations, as well as the Indian subcontinent. Although medical

fitness examinations are a mandatory prerequisite to obtaining work permits, there is the possibility of latent infection. In addition, the presence of a substantial number of illegal migrants, who are highly mobile within the country as well as across borders, and who do not undergo any health screening, further complicates effective control of the disease.

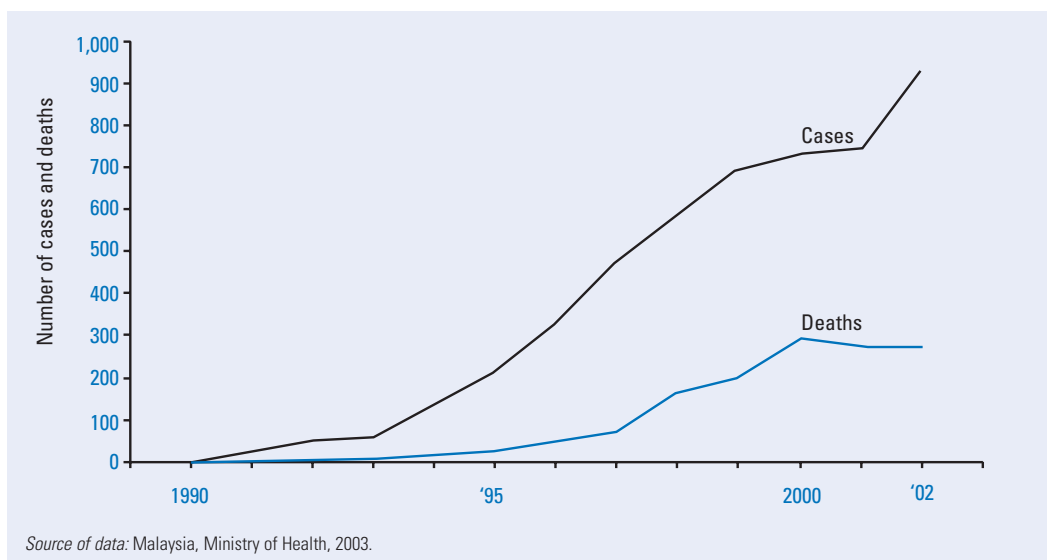
Figure 6.10 Incidence Rate of Tuberculosis, Malaysia, 1991 and 2000



TB with HIV

In 1990, only six cases of TB with HIV co-infection were reported out of the total 11,000 TB cases notified. However, TB co-infection with HIV rose steadily and steeply in the 1990s, alongside the escalating HIV/AIDS epidemic reaching 750 TB-with-HIV cases reported in 2001 and 900 cases in 2002 (Figure 6.11). The number of deaths attributable to TB with HIV did not show a comparable increase, registering less than 300 deaths in 2002 (Figure 6.11) compared to a total of 5,400 AIDS-related deaths in that year. This may be due to the long incubation period and long-wave nature of these illnesses. Globally, tuberculosis is a significant cause of death among AIDS patients. Nonetheless, the magnitude of TB co-infection in this country is expected to continue to increase with that of HIV infections. There is cause for concern in the light of the highly infectious nature of active TB and evidence that TB can accelerate the development of AIDS in HIV-infected persons.

Figure 6.11 Number of TB with HIV Cases and Number of Deaths, Malaysia, 1990–2002



Programmes

National TB control programme and strategies

The National TB Control Programme was set up in 1961 to control and reduce the prevalence of TB throughout the country. The programme, now under the Section of Communicable Diseases, Disease Control Division of the Department of Public Health, MOH, was decentralized in 1995 so that states are responsible for their own TB control and prevention measures. The objectives of the Malaysian TB Control Programme, consistent with WHO objectives, are (i) to reduce the prevalence rate by half by 2010; (ii) to ensure an 85 per cent cure rate among newly detected smear-positive cases; (iii) to ensure that 100 per cent of smear-positive cases are on DOTS by 2005; and (iv) to detect at least 70 per cent of estimated smear-positive cases.

Strategies towards attaining the objectives of the TB Control Programme include (i) BCG vaccination for all newborn babies; (ii) screening of symptomatic cases and high-risk groups, including mandatory screening of foreign workers and HIV patients in prisons and drug rehabilitation centres; (iii) raising awareness of the disease through the mass media; (iv) training health staff about the disease; and (v) conducting research related to TB epidemiology and treatment outcomes, including a national TB prevalence study and a multi-drug resistance survey.

Detection and treatment

Early case detection and prompt treatment are essential to reduce transmission of TB in the community. As with malaria control, the widespread network of community-based primary health care facilities throughout Malaysia facilitates early case detection. However, TB, a highly contagious disease, is more likely to miss detection for a longer period because of its asymptomatic stage and late health-care seeking behaviour. Once detected, cases are registered at the district health office and followed up at health clinics. Contact tracing is done for all those living under the same roof as the TB patient, as well as for co-workers in all occupations. The comprehensiveness of contact tracing depends on the resources available. Moreover, compliance with the protracted treatment regimens is a well-recognized problem worldwide. The WHO recommends DOTS, an effective strategy for TB treatment whereby patients are observed taking their drugs so as to ensure that they are maintaining their regimen. Cure rates reach 95 per cent—double that of non-DOTS regimens—for a modest cost. With the implementation of the DOTS strategy since 1999, all government health facilities offer free treatment to all TB patients. The procedure involves a supervised treatment for 6-8 months under direct observation by trained supervisors followed by, regular, uninterrupted supplies of anti-TB drugs. A standardized recording and reporting system that allows assessment and audit of the efficacy of the strategy is then implemented.

By implementing the DOTS strategy nationally, the government has demonstrated its commitment to sustained TB control activities. However, despite the relatively high prevalence of TB there is little information on public knowledge and perceptions of the disease in Malaysia. There is probably a measure of stigma attached to TB since it tends to be associated with poverty and unhealthy living conditions. This lack of knowledge and stereotyping may be obstacles to TB control.

Future challenges

Although there are well-established control strategies and treatments for TB, it still remains the most serious infectious disease in Malaysia, in terms of incidence and deaths. The key challenges that remain in combating TB in Malaysia include (i) increasing awareness of the disease among clinicians and medical personnel, as well as among the public; (ii) reducing poverty and optimizing access to medical facilities, especially in rural and remote areas; (iii) ensuring 100 per cent of identified cases are incorporated in the DOTS programme; (iv) achieving more effective follow-up of patients who are defaulting on their treatment regime; (v) improving the screening and routine monitoring of infected migrant workers to increase treatment and reduce infection; (vi) curbing the accelerating occurrence of co-infection with HIV; and (vii) pre-empting and/or dealing with the rise of multi-drug resistant TB.

Future directions for HIV/AIDS, malaria, and tuberculosis

The magnitude and health burden of HIV/AIDS, malaria, and tuberculosis on a global scale have warranted their inclusion as specific MDG targets by year 2015. Over the past 50 years, infectious diseases have assumed a lesser significance in Malaysia relative to non-communicable diseases, along with development progress and spectacular reductions in poverty. The trends in absolute numbers, as well as incidence rates, have declined appreciably for malaria, but continue to rise in numbers for HIV/AIDS and TB. TB and AIDS are the leading causes of death from infectious diseases in the country. Both diseases are related to social problems, namely, rural and urban poverty, and intravenous drug use. There is no room for complacency in malaria control vis-à-vis existing areas where malaria persists, increasing drug resistance, loss of natural immunity, and population mobility within and between national borders. Increased efforts and resources will be put in place to eradicate and prevent the re-establishment of this disease.

Strategies in disease control need to be evidence-based with in-built operations research to evaluate outcomes and respond efficiently to changes in disease epidemiology. This is critical where resources are limited by increasingly higher programme costs and competing priorities. Implicit within this is the development of appropriate indicators by which to measure the attainment of objectives.

Several obstacles and challenges have been identified that need continued committed action, from policy to implementation and operations, applying multisectoral and intersectoral approaches and collaborations, as well as community participation and mobilization. The private sector, particularly the pharmaceutical industry, can contribute towards achieving the MDG targets through its research development on new drugs, pricing, and licensing policies. Besides this, religious leaders and institutions, have also been called upon to assist in the fight against HIV/AIDS in Malaysia. This includes the battle against substance dependence, particularly injecting drug use, thus far the primary source of HIV infection.

To be successful, experience has shown that such collaborative efforts need strong leadership, access to resources, institutional commitment, and recognition. The human factors in all approaches have to be given due regard. Disease prevention involves identifying not only the biological agents but also the social, economic, and cultural factors that enable or hinder health-promoting conditions and behaviours. To achieve the MDG targets, it is imperative that HIV/AIDS, malaria, and other diseases are firmly placed within a national multisectoral development framework.



MDG 7

Ensure Environmental Sustainability

Environmental sustainability is necessary to achieve and sustain economic growth, poverty eradication, and social development. Achieving sustainability requires systematic effort to avoid undesirable environmental impacts and enhance ecosystem management. There are numerous challenges, including minimizing the effects of pollutants; ensuring efficient utilization of land and consumption of natural resources; and containing congestion in urban areas and the associated problems of transportation, waste disposal, and provision of social services. Reconciling environmental sustainability and rapid economic development that reduces poverty calls for informed policies and strategies that achieve designated goals and minimize unfavourable trade-offs.

Like all countries, Malaysia has had to grapple with environmental degradation issues. For example, urban-based economic growth has led to increased potential for pollution of the environment. However, the need to balance environmental and developmental demands to ensure that the benefits of development are not negated by the costs of environmental change has been recognized in Malaysia since the 1970s. The principles of sustainable development have progressively been integrated into national development plans and policy making. These include sector-specific policies, legislation, and obtaining approval to proceed on the basis of environmental impact assessments for major projects. Malaysia is also an active participant in reviewing environmental issues at the regional and international level and has ratified most major multilateral environment agreements.

MDG 7, on ensuring environmental sustainability, sets three targets, namely to (i) integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources; (ii) halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation; and (iii) by 2020, have achieved a significant improvement in the lives of slum dwellers. To measure progress towards these three targets, a set of indicators have been proposed; they are defined and explained in Box 7.1.

This chapter first outlines current sustainable development trends that are related to the MDG 7 targets, and then reviews the programmes that have been formulated to help achieve these targets. It concludes by pointing to some of the continuing challenges that Malaysia faces in achieving sustainable development.

Box 7.1 INDICATORS FOR MONITORING ENVIRONMENTAL SUSTAINABILITY

Six key indicators are used here to monitor the progress of the MDG to ensure environmental sustainability. These are (i) proportion of land area covered by forest; (ii) ratio of area protected to maintain biological diversity to surface area; (iii) energy use (kg oil equivalent) per \$ GDP (PPP); (iv) carbon dioxide emissions (per capita) and consumption of ozone-depleting CFCs (ODP tons); (v) proportion of population with sustainable access to an improved water source, urban and rural and (vi) proportion of urban and rural population with access to improved sanitation.

The [proportion of land area covered by forest](#) is defined as a share of total land area, where land area is the total surface area of the country less the area covered by inland waters, such as major rivers and lakes. Changes in forest area reflect the demand for land for other competitive uses. Forests fulfil various functions that are vital for humanity, both in terms of goods and services.

The [ratio of area protected to maintain biological diversity to surface area](#) is defined as nationally protected area as a percentage of the total surface area of a country. Protected areas are vital for safeguarding biodiversity, supporting local livelihoods, protecting watersheds, harbouring the wealth of genetic resources, promoting recreation and tourism industries, and providing areas for research and education, as well as fostering cultural values.

The [energy use \(kg oil equivalent\) per \\$ GDP purchasing power parity \(PPP\)](#) is the commercial energy used, measured in units of oil equivalent per \$1 GDP

converted from national currencies, using PPP. It provides a measure of energy intensity. The lower the ratio, the better the energy efficiency.

The carbon dioxide emissions (per capita) and [consumption of ozone-depleting chlorofluorocarbons \(CFCs\)](#) (ozone depleting potentials (ODP) tons) show total amount of carbon dioxide emitted by a country as a consequence of consumption and production activities and sum of the consumption of the weighted tons of the individual substances in the group—metric tons of the individual substances multiplied by its ODP respectively. They signify the commitment to reducing carbon dioxide emissions and progress in phasing out the consumption of CFCs by the countries that have ratified the Montreal Protocol.

The [proportion of population with sustainable access to an improved water source, urban and rural](#), is defined as the percentage of the population who use any of the following types of water supply for drinking: piped water, public tap, borehole or pump, protected well, protected spring, or rainwater. It monitors access to improved water sources based on the assumption that improved sources are more likely to provide safe water. Unsafe water is the direct cause of many diseases in developing countries.

The [proportion of urban and rural population with access to improved sanitation](#) is the percentage of the population with access to facilities that hygienically separate human excreta from human, animal, and insect contact. Good sanitation is important for the health of the urban and rural populations.

Trends in environmental sustainability

Proportion of land area covered by forest

The total land area for Malaysia is about 33 million hectares of which 19.5 million hectares or 59.5 per cent of the total land area are under forest cover. Out of the 19.5 million hectares, 14.3 million hectares are gazetted as Permanent Reserve Forests (PRF) or Forest Reserves (Sabah and Sarawak) and are managed under the Forestry Department of each state. The forest reserves are managed with the objective of maintaining the forest ecosystem in perpetuity, while allowing for the use of the forest products and services. Within these areas, there are classifications for different categories of use, such

as for timber production, water catchment, soil protection, recreation, research, and wildlife protection.

In addition to these areas, Malaysia has also gazetted a total of about 3.3 million hectares as protected areas, under the network of Wildlife Sanctuaries, National Parks, State Parks, and Wildlife Reserves scattered throughout the country. This increase is due to the gazettement of more state parks, of which the Royal Belum State Park, covering an area of about 117,500 hectares, gazetted in 2003, is the latest example.

Ratio of area protected to maintain biological diversity to surface area

Malaysia is a country that has been recognized as one of the twelve mega biologically diverse countries in the world. It is estimated that there could be over 15,000 known species of flowering plants, 286 species of mammals, 150,000 species of invertebrates, over 1,000 species of butterflies, 12,000 species of moths, and over 4,000 species of marine fish in the country. The recent discovery of a new tree species *Vatica yeechongyii* in May 2004 in Selangor and Negeri Sembilan demonstrates that the extent of diversity is still not fully known.

To ensure the protection and conservation of its biodiversity, Malaysia has created a network of protected areas that are representative of the ecosystems found in Malaysia. As previously noted, the network of protected areas for forests is covered under Wildlife Sanctuaries, National Parks, State Parks, and Wildlife Reserves and totals up to 3.3 million hectares. In addition, there is a total of about 0.2 million hectares of protected forest within the Permanent Reserve Forests.

In 1995, *Tasek Bera* became the first *Ramsar* protected area in Malaysia and is dedicated to the protection and sustainable use of freshwater ecosystems in the country. The management programme also includes the integration of sustainable use by local and indigenous communities through ecotourism activities.

Another ecosystem that has been protected for its resources is the fisheries and coral reef ecosystem. Malaysia has a total of about 40 marine parks. The fourth unique ecosystem that is represented through the protected area network is the cave ecosystem which is represented by the Gunung Mulu and Gunung Niah National Parks in Sarawak.

Energy use

Adequate energy services are essential for economic development, to raise productivity and support modern lifestyles. But the provision of energy services, especially those furnished through the combustion of fossil fuels, can have adverse environmental effects. Expanding use of fossil fuels increases emissions of carbon dioxide, impacts negatively on the atmosphere, and contributes to climatic warming. More directly, the by-products of fuel combustion, such as dust and soot, can affect productivity, health, and the quality of life.

Malaysia's largest energy resources are oil and natural gas, while hydroelectricity and coal (mainly imported) comprise the other main sources of power. Crude oil and petroleum products, which provided about 53 per cent of the total energy supply in 2000, are predicted to grow at 6.3 per cent per year during the Eighth Malaysia Plan period

(2001–5). Natural gas, which contributed 37 per cent, is projected to grow by 8.8 per cent per annum. By 2005, the contribution of crude oil and petroleum products is anticipated to decline to 50.8 per cent, while natural gas and coal are expected to increase to 39.9 per cent and 5.9 per cent respectively. Similarly, the use of renewable energy as the fifth option is expected to be intensified. This is consistent with the energy policy of reducing dependence on a single source of energy and developing alternative sources of supply.

The final consumption of commercial energy, which grew at an average annual rate of 4.7 per cent during the 1995–2000 period (Table 7.1), was attributable largely to expansion in the manufacturing and transport sectors over that five-year period (Table 7.2). The industrial sector was the largest energy consumer, utilizing over 37 per cent of the total commercial energy demand in 2000. The transport sector consumed almost as much (over 36 per cent), whereas the combined residential and commercial sector share was a little less than 13 per cent of the total (Table 7.2).

Table 7.1 Final Commercial Energy Demand by Source, Malaysia, 1995 and 2000

Source	1995		2000		Average Annual Growth Rate (%)
	PJ ²	%	PJ	%	1995–2000
Petroleum Products	676.0	72.8	804.3	68.9	3.5
Natural Gas ³	81.1	8.8	120.0	10.3	8.2
Electricity	141.3	15.2	205.0	17.6	7.7
Coal & Coke	29.8	3.2	37.8	3.2	4.9
TOTAL	928.2	100.0	1,167.1	100.0	4.7
Per Capita Consumption (gigajoules)	44.9		50.1		2.5
Energy Efficiency (RM million GDP per PJ of energy used)	239.68		291.93		4.02

Source of data: Malaysia, Economic Planning Unit, 2001a.

Notes: 1. Refers to the quantity of commercial energy delivered to final consumers but excludes gas, coal, and fuel oil used in electricity generation.

2. Joule is the unit of energy to establish the equivalent physical heat content of each energy form. One megajoule = 106 joules, one gigajoule (GJ) = 109, and one petajoule (PJ) = 1015 joules. One PJ = 0.0239 million tonnes of oil equivalent (mtoe). One toe = 7.6 barrels.

3. Includes natural gas used as fuel and feedstock consumed by the non-electricity sector.

Compared with many industrialized nations, per capita energy consumption is relatively modest but is expanding rapidly in tandem with economic development. It grew by an average of 2.5 per cent per annum between 1995 and 2000 (Table 7.1) and is expected to increase to 5.8 per cent per annum by 2005 while the overall demand for energy by 2005 is expected to increase by 7.8 per cent per annum. Energy intensity of the economy is expected to increase marginally from 5.7 GJ in 2000 to 5.9 GJ in 2005.

Through the rural electrification programme, it is anticipated that continued investment would achieve 95 per cent of rural electricity coverage in Malaysia by 2005, with Sabah and Sarawak achieving 85 per cent and 90 per cent respectively.

Table 7.2 Final Commercial Energy Demand by Sector, Malaysia, 1995, 2000, and 2005

Sector	1995		2000		2005 (estimated)		Average Annual Growth Rate (%)	
	PJ	%	PJ	%	PJ	%	7MP	8MP
Industrial ¹	337.5	36.4	432.9	37.1	650.0	38.2	5.1	8.5
Transport	327.8	35.3	422.8	36.2	642.5	37.8	5.2	8.7
Residential and Commercial	118.8	12.8	147.8	12.7	213.2	12.5	4.5	7.6
Non-Energy ²	125.4	13.5	142.8	12.2	165.2	9.7	2.6	3.0
Agriculture and Forestry	18.7	2.0	20.8	1.8	28.9	1.8	2.2	6.8
TOTAL	928.2	100.0	1,167.1	100.0	1,699.8	100.0	4.7	7.8

Source of data: Malaysia, Economic Planning Unit, 2001a.

Notes: PJ: Petajoules. 1. Includes manufacturing, construction, and mining.

2. Includes natural gas, bitumen, asphalt, lubricants, feedstock, and grease.

Water supply and sanitation

Comprehensive water reticulation in Malaysia assumed high priority after Independence with the primary objective of reaching as many people as possible with treated water of potable quality. This has proved to be a major task since population has grown steadily at an average annual rate of around 2–3 per cent since the 1960s and in 2000, 38 per cent of the population was still resident in rural localities. In 2000, about 98 per cent of the urban population and 87 per cent of the rural population were served with clean piped water.

The major water demand comes from irrigation for agricultural purposes and domestic and industry use with the projected increase in demand from 10.4 billion m³ and 4.8 billion m³ in 2000 to 13.2 billion m³ and 5.8 billion m³ in 2020 respectively. Providing continued treated water to the entire population in future will depend on the quality of available fresh water as well as the management and supply of treated water. Despite the abundance of fresh water in Malaysia, shortages occur in some states due to uneven distribution and demand, as well as seasonal variations. Even in the states that lag behind, the percentage of households with access to improved water sources is still high at 80 per cent in Kelantan and 90 per cent in Terengganu (Figure 7.1).

Increased access to improved water sources has been a powerful factor in improving health and reducing the spread of infectious diseases in Malaysia, especially among rural communities. As water supply coverage has increased amongst rural population, the incidence of cholera, typhoid, and dysentery has fallen markedly (Figure 7.2).

Figure 7.1 Access to Improved Water Source in Rural Areas by State, Malaysia, 1987 and 2001

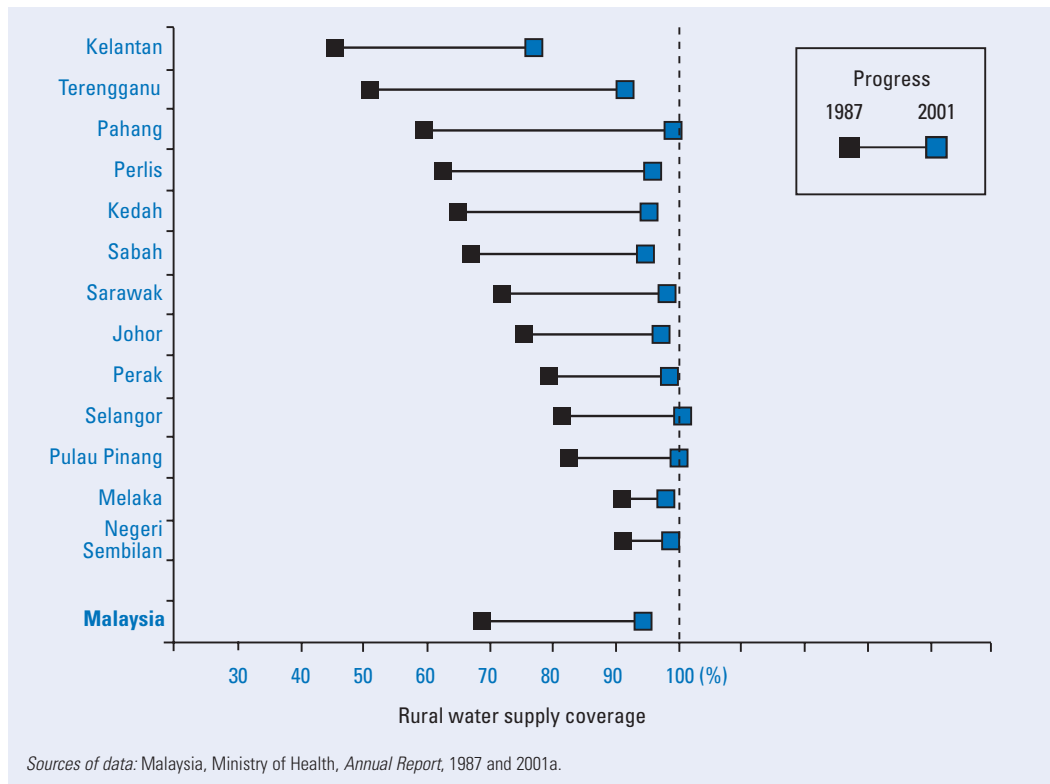
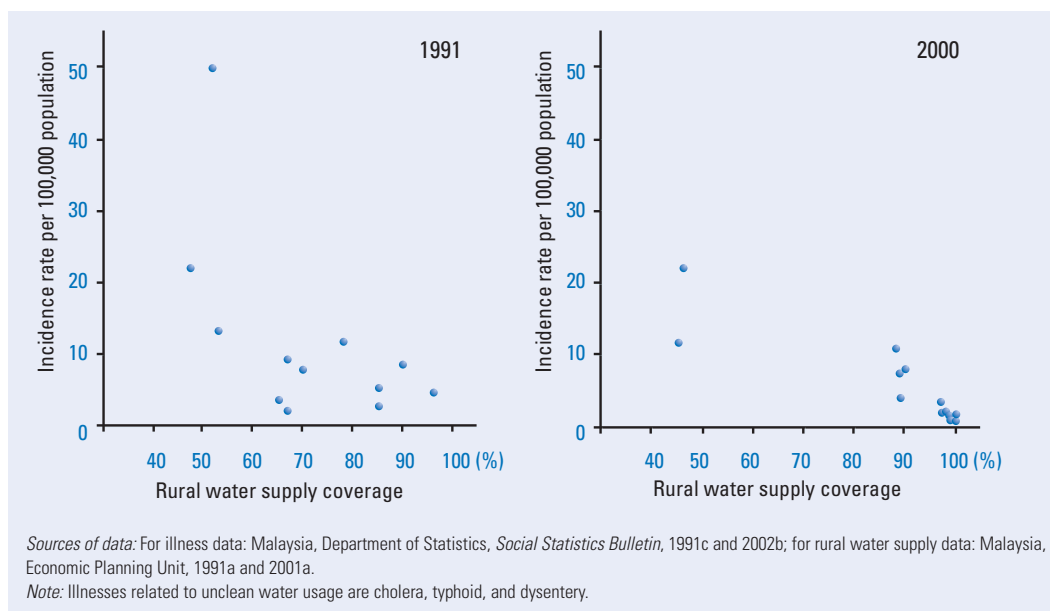
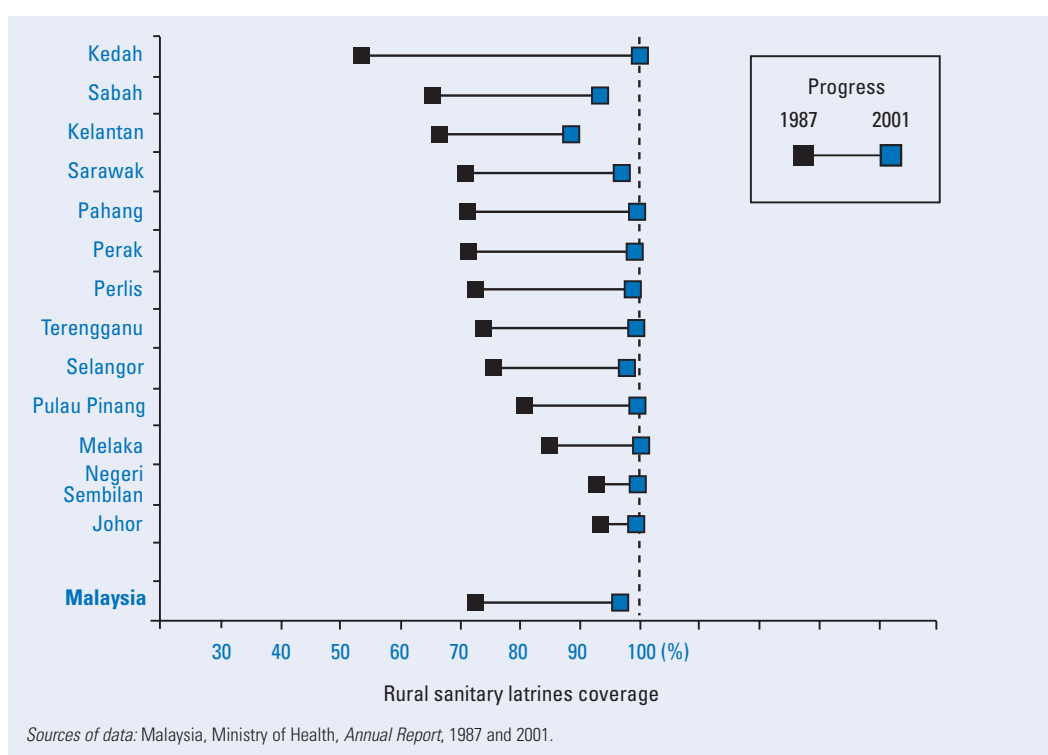


Figure 7.2 Illnesses Related to Unclean Water Usage vs Rural Water Supply Coverage, Malaysia, 1991 and 2000



Sanitation is also an important element of the infrastructure in any human settlement, both for health and environmental protection. The government has been actively promoting environmental sanitation to improve the health status of the population since the 1970s. Almost the entire urban population has been supplied with reticulated sewerage systems and septic tanks by local authorities. In rural areas, sanitary latrines had been provided for 99 per cent of the population by 2000 compared to just 83 per cent in 1990. Sabah and Kelantan still have over 90 per cent coverage despite having less coverage compared to other states (Figure 7.3).

Figure 7.3 Sanitary Latrines Coverage in Rural Areas by State, Malaysia, 1987 and 2001



In urban areas, local authorities' responsibility for the provision of sewerage services was transferred to the federal government through the Sewerage Services Act 1993 (SSA) and the provision of sewerage services was privatized. The privatization of sewerage services involved 84 local authorities during the Seventh Malaysia Plan (1996–2000). Coverage of the population served by public sewerage systems and septic tanks increased from 7.5 million in 1995 to over 12.6 million people in 2000.

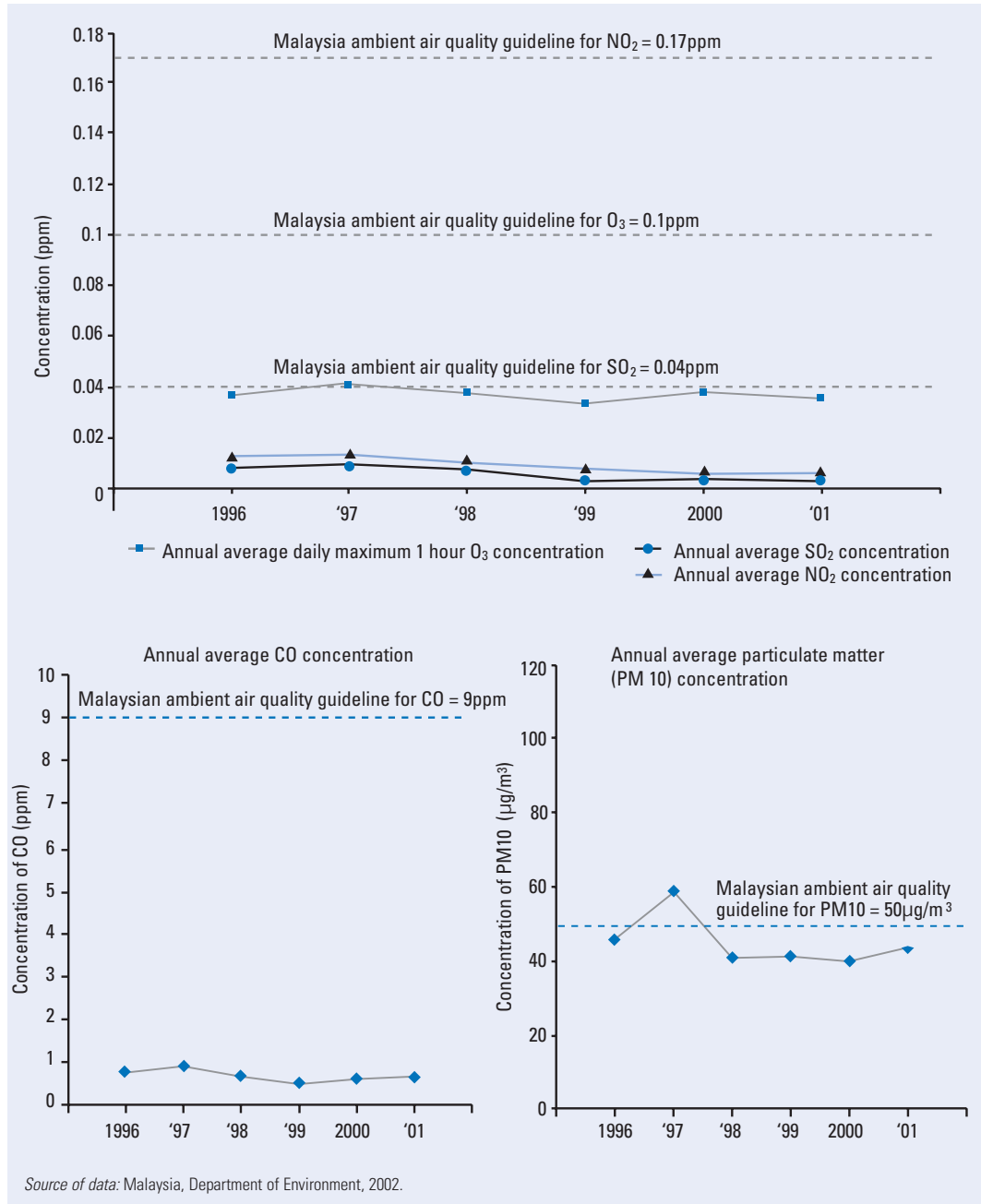
Air and water pollution

The quality of air and water directly affects the socio-economic condition of society. As a result of the rapid economic growth in Malaysia over the past two decades, air and water pollution is generally expected to become more challenging.

Rapid urbanization and industrial growth account for the continued increase in air pollution. The sources of air pollution are from the transportation and industrial sector through the burning of fossil fuel. The increasing number of vehicles remains the main cause of the deterioration of air quality, particularly in major towns such as Kuala Lumpur. However, the Malaysian Quality of Life Index (MQLI) 2002 showed that the quality of air, measured by the Air Pollution Index (API), improved slightly to 100.6 points between 1990 (base year, 100) and 2000, though with some variations in the years and reaching its worst level in 1998 (around 85). With regard to individual pollutants, the level of all pollutants, with the exception of PM 10, are well below the Malaysian ambient quality guideline as shown in Figure 7.4. The periodic episodes of haze that coincide with the hot and dry season exacerbate the air pollution situation to critical levels, especially in the Klang Valley.

Starting from around 1970, the construction of factories to manufacture agro-based products contributed in a major way to the pollution load in Malaysian rivers. Other contributing factors were the opening up of land for housing development, rural development (especially large-scale land settlement schemes), active logging and mining activities, and general infrastructure development. Other effects of sedimentation in rivers include flooding in low-lying areas, flash floods in urban areas, depletion of aquatic life, and problems of maintaining a clean and reliable water supply.

According to MQLI 2002, water quality as reflected by the percentage of clean rivers declined over the period 1990–2000. The percentage of clean rivers fell from 53.3 per cent or 48 rivers to 28.3 per cent or 34 rivers out of 120 river basins monitored. However, the Environmental Quality Report 2001 noted that in that year, the number of clean rivers increased from 34 to 60 due to the improved status of 26 rivers which were previously in the slightly polluted category. The Environmental Quality Report 2001 stated that the main sources of water pollution are sewage from households, effluents from the manufacturing sector and agro-based industry, and livestock farms. The implementation of refurbishment works on the sewerage facilities by the existing concessionaire (with government capital expenditure) is expected to provide a more effective sewerage system that will mitigate the unfavourable impact on river quality.

Figure 7.4 Air Quality, Malaysia, 1996–2001

Emission of greenhouse gases (GHG)

Malaysia's emission of greenhouse gases (GHG) totalled 144 million tonnes of CO₂ in 1994. Net emissions, after accounting for sinks, totalled 76 million tonnes. On a per capita basis, the net emissions were equivalent to 3.7 tonnes. The CO₂ emissions from final energy use (excluding electricity) by various activities of the economy indicated that transportation contributed 49 per cent, industries 41 per cent, residential and commercial activities 7 per cent, and agriculture 3 per cent of the overall emissions.

Consumption of ozone-depleting substances (ODS)

The adoption of the Montreal Protocol in 1987 marked the beginning of a unique global effort to solve a shared environmental problem. With the fund provided by the Montreal Protocol, Malaysia has successfully coordinated, maintained, and implemented projects on ODS, including the setting up of a National Halon Bank. Malaysia's Department of Environment has won the UNEP Global Ozone Award for these efforts. Indeed, the emission of ODS in Malaysia has been curtailed more rapidly than required under the Montreal Protocol. When Malaysia ratified the agreement in 1989, its ODS consumption was 0.29 kilograms per capita. By 1997, this figure had dropped to 0.10 kilograms per capita. It is expected that, with concerted efforts in small and medium-sized industries in Malaysia, CFCs and halon will be completely phased out by the year 2010.

Access to secure tenure

The government's housing policy is to ensure that households have access to adequate housing, and that houses are of reasonable standard and affordability. Financing schemes are also made available. In 1982, the government made it a policy that private developers build at least 30 per cent low-cost houses in housing development projects. The government has assumed the leading role in providing low-cost housing, through the Public Low-Cost Housing Programme (PLCHP).

Besides PLCHP, through which units are put up for sale, the government has implemented the Integrated Public Housing Programme with the main objective of resettling squatters. The houses are rented out at a low rate of about RM124 (less than US\$33) per month. Under this programme, state governments provide suitable land while the federal government finances the construction costs. This programme, which was introduced in Kuala Lumpur in 1998, involves 24 projects comprising 34,584 units of low-cost housing scheduled for completion in 2004–5. The scheme has been extended to other major towns and involves another 29 projects (comprising a further 21,104 units to be completed by 2005) aimed at realizing the zero-squatter target. However, scarcity of suitable land and the costs of related infrastructure are proving to be constraints to the achievement of this target.

Enabling environment

Malaysia's national policy on sustainable development is based on a balanced approach whereby environment and development complement each other. The principles of sustainable development were introduced in the Third Malaysia Plan (1976–80) and have been reiterated in subsequent development plans. The Eighth Malaysia Plan (2001–5) states that “emphasis will be placed on addressing environmental and resource issues in an integrated and holistic manner. Steps will be taken to identify prudent, cost-effective, and appropriate management approaches that yield multiple benefits in order to ensure that development is sustainable and resilient ... Steps will be taken to strengthen the database for environmental decision making by introducing the use of sustainable development indicators to better ascertain impacts and plan remedial actions.” Hence, national development and sector strategies explicitly address environmental protection and management issues. National frameworks, such as strategies for sustainable development, guide policies for natural resource management in light of the country's specific resources and concerns.

As elsewhere in industrializing and urbanizing countries, economic growth in Malaysia has been accompanied by pollution issues. However, Malaysia began monitoring these problems at a relatively early stage in the process of industrialization. The Department of Environment was established in 1974 to provide overall supervision of the Malaysian environment. A national system of monitoring stations for air and water quality was established in the late 1970s. Activities with significant impact on the environment, such as land and agricultural development, are increasingly subject to rigorous environmental impact assessments.

International treaties

Malaysia, being part of the global community, has signed various international agreements since the 1970s. The first of these international conventions was the Convention of International Trade in Endangered Species of Wild Flora and Fauna (CITES), which was signed in 1977. This was followed by the United Nations Convention on the Law of the Sea (UNCLOS) in 1982 and the Convention on Biological Diversity (CBD) in 1992.

In 1987, Malaysia signed the Montreal Protocol, which commits the nation to phasing out ODS. In 1993, it signed the United Nations Framework Convention on Climate Change (UNFCCC) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. In 1994, Malaysia signed the International Tropical Timber Agreement (ITTA) and the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat. The latest environment-related agreement Malaysia was involved in is the ratification of the Cartagena Protocol on Biosafety in 2003.

Programmes

Forest certification

In 1994, Malaysia signed the International Tropical Timber Agreement (ITTA), which brought the matter of sustainable forest management into sharp focus. Central to this agreement is the 'Year 2000 Objective', whereby ITTA producer countries made commitments to draw their exports of tropical timber and tropical timber products from sustainable managed sources by the year 2000. To ensure the successful achievement of this commitment, the Malaysian government allocated substantial resources to improve the management of the forests, which led to the formation of the Malaysian Timber Certification Council (MTCC) and the development of stakeholder consultation to formulate the Malaysian Criteria, Indicators, Activities, and Standards of Performance (MC&I) for Forest Management Certification.

In January 2001, MTCC launched its certification scheme and currently has a total of about 4.1 million hectares certified. In addition, three other areas have been certified under the international certification scheme—the Forest Stewardship Council (FSC). The total area certified under the FSC comes to about 77,000 hectares. In April 2004, MTCC announced that it will begin to utilize the new standards in January 2005.

Area protected to maintain biological diversity

Under the Convention on Biological Diversity (CBD), Malaysia has conducted a country assessment of its biological diversity resources and has also since developed a National Policy on Biological Diversity. Both Sabah and Sarawak have taken the CBD a step further and have proceeded to formulate their own laws and legislation to manage biodiversity in the state. Sarawak enacted the Sarawak Biodiversity Centre Ordinance 1998 and the Sarawak Biodiversity (Access, Collection, and Research) Regulations 1998 which provided for the establishment of the Sarawak Biodiversity Centre. In Sabah, the Sabah Biodiversity Centre was established in 2001, for the purpose of managing and protecting the wealth of the state's biological diversity.

In December 2001, Malaysia set up the National Biodiversity–Biotechnology Council to coordinate the management of biodiversity at both state and federal level. As a follow-up to the Meeting of the Parties of the Cartagena Protocol on Biosafety, Malaysia is currently formulating the National Biosafety Bill.

Malaysia's commitment to the protection of freshwater ecosystems is further demonstrated by the gazetting of four sites to be protected under the Ramsar Convention which brings the total Ramsar Wetland Sanctuary in Malaysia to 48,745 hectares.

The government of Malaysia also commissioned a study to assess the hill stations in Peninsular Malaysia and to recommend measures for the sustainable development of the highlands in July 2002. The result was the completion of the National Highlands Conservation and Management Strategy in November 2003. The government is in the

process of commissioning another study to formulate a strategy for the highlands of Sabah and Sarawak. The strategy will look at providing guidelines that will lead to the formulation of the National Highlands Policy. The implementation of the recommendations in the reports will be overseen by the Cabinet Committee on the Coordination and Development of Highlands and Islands. These guidelines will assist state governments to incorporate better practices in land use planning for the highlands, which will impact on the water catchment areas.

The concept of integrated water resource management (IWRM) is already adopted in the government's Third Outline Perspective Plan (OPP3) and will be incorporated into any new development under the Eighth Malaysia Plan. The creation of the new Ministry of Natural Resources and Environment is lauded as a positive move to ensure that the nation's water resources will be planned, managed, and conserved by one organization.

In February 2004, during the seventh COP meeting of the CBD, the governments of Malaysia, the Philippines, and Indonesia signed a Memorandum of Understanding to take up joint leadership in the conservation planning and management of the Sulu-Sulawesi Marine Ecoregion as part of these countries' national and international commitments towards CBD and the Johannesburg Plan of Implementation adopted at the World Summit on Sustainable Development (WSSD).

The government of Malaysia has also recognized the importance of marine protected areas in Malaysia and has developed a project proposal for the strengthening of the marine parks system in Peninsular Malaysia. This project will look at addressing threats originating from the development of islands and increasing control of activities in and around the marine park area. The goal of this project is to ensure proper conservation and sustainable use of the marine biodiversity in the three marine parks, as well as sustainable island development.

Energy

Malaysia's energy policy has evolved over the years, instigated largely by the 1973 world oil crisis. The National Petroleum Policy, formulated in 1975, aims at regulating the oil and gas industries to achieve overall economic development needs. The National Energy Policy (1979) identifies the following major objectives: (i) to ensure adequacy, security, and cost-effectiveness of energy supply; (ii) to promote efficient utilization of energy; (iii) to discourage wasteful patterns of energy consumption; and (iv) to minimize any negative environmental impacts in the energy supply chain.

With regard to the energy supply objective, policy initiatives have aimed at extending the life of domestic depletable energy resources and, at the same time, diversifying away from oil dependence to other energy sources. The National Depletion Policy of 1980 was aimed at safeguarding the depleting oil and natural gas reserves by imposing production limits. In 1981, the government adopted the four-fuel strategy to reduce the economy's overdependence on oil. The strategy aims for a balanced energy mix of oil, gas, hydroelectricity, and coal. Diversification from oil has been mostly towards natural gas, which is not only an indigenous energy resource but is also a more environmentally friendly one.

Malaysia's Energy Plan (2001–10) highlights:

- adequacy and security of fuel supply as well as greater utilization of natural gas by the power and non-power sectors;
- development of renewable energy, particularly for power generation;
- efficient utilization of energy through the introduction of new regulations and amendments to present laws;
- adequacy of electricity supply, as well as improvement in productivity and efficiency; and
- expansion of rural electricity coverage.

Energy efficiency and renewable energy. Malaysia has established special institutions to spearhead research and development and education and training in energy efficiency and renewable energy. *Pusat Tenaga Malaysia* (PTM) was set up to coordinate and manage energy-related R & D programmes, as well as to promote energy efficiency and renewable energy in Malaysia. Similarly, the Centre for Education and Training in Renewable Energy and Energy Efficiency (CETREE) in *Universiti Sains Malaysia* conducts training and carries out public awareness dissemination activities, including designing renewable energy and energy efficiency modules for teaching in schools and universities.

One of the pioneer programmes executed by Pusat Tenaga Malaysia is the Malaysian Industrial Energy Efficiency Improvement Project (MIEEIP), which aims to prove the technical and financial viability of energy efficiency projects for the industrial sector. A total of eight new technology demonstration projects will be implemented for the eight industrial subsectors targeted by the MIEEIP as the most energy-intensive sectors. On the other hand, the implementation of demand-side management measures like retrofitting and district cooling programmes, changing energy use patterns, and appliance labelling will be intensified. This includes the ongoing programme, 'Building Energy Audits in government and related agencies', within the overall Malaysian Energy Management Programme (MEMP).

With the announcement of renewable energy (RE) as the 'fifth fuel' in Malaysia by the government, it is expected that about 5 per cent of total electricity generation or about 600 MW of installed capacity will be from RE by the end of 2005. The Small Renewable Energy Power (SREP) Programme was officially launched in 2001. Two landmark power purchase agreements were signed to facilitate the entry of renewable energy (biomass and biogas) into mainstream energy development in Malaysia.

In line with this, and with the assistance of PTM, the Biomass-based Power Generation and Cogeneration in the Malaysian Palm Oil Industry project was started. Studies have shown that palm oil mills produce substantial wastes or biomass that could be turned into a potential energy resource.

While Malaysia, as a developing country, is not committed to reduce its greenhouse gas emission under the UNFCCC and the Kyoto Protocol, it has taken advantage of the provisions of the Clean Development Mechanism (CDM) under the Kyoto Protocol to increase its renewable energy sources. It is the policy of the government that CDM projects give priority to renewable energy projects. Therefore, through the CDM, Malaysia could benefit from the investments made in emission reduction projects

which will contribute to the overall improvement of the environment. To enhance the country's participation in the CDM, a National Committee on CDM has been set up at the Ministry of Natural Resources and Environment to evaluate and endorse the projects for submission to the CDM Executive Board.

Incentives. Currently, there are some fiscal incentives available to encourage the use of renewable energy and to improve energy efficiency. Companies providing energy conservation services can apply for pioneer status with tax exemption of 70 per cent of statutory income for a period of five years or an investment tax allowance (ITA) of 60 per cent on the qualifying capital expenditure incurred within a period of five years. In addition, they will be given import duty and sales tax exemption for equipment used in the related project, which is not produced locally. Equipment purchased from local manufacturers is given sales tax exemption.

For companies which incur capital expenditure for conserving energy for their own consumption, the incentives provided are accelerated capital allowance on related equipment that can be fully written off within a period of one year and import duty and sales tax exemption for equipment used in energy conservation.

To encourage the generation of energy using biomass that is renewable and environmentally friendly, companies that undertake such activities are eligible for pioneer status or ITA. For the purpose of this incentive, 'biomass sources' refer to palm oil mill/estate waste, rice mill waste, sugar cane mill waste, timber/sawmill waste, paper recycling mill waste, municipal waste and biogas (from landfill, palm oil mill effluent [POME], animal waste, and others), while energy forms refer to electricity, steam, chilled water, and heat. To further promote the use of renewable energy, the above incentives are also extended to the use of hydropower (not exceeding 10 MW) and solar power.

Water supply and sanitation services

The formation of the National Water Resources Council (NWRC) in 1998 was to improve management and ensure better distribution of water resources among various river basins both within and between states. The NWRC promulgates guidelines on catchment management to ensure long-term sustainability of water resources. With the completion of a National Water Resources Study in 2000, a National Water Master Plan was formulated to ensure efficient water management through to 2050.

The establishment of the new Ministry of Energy, Water and Communications will enable the government to better coordinate the management of water resources and waste water for the nation. The Ministry will be responsible for coordinating the distribution channels for water resources and waste water.

The government's decision in 1993 to privatize servicing of the sewerage system represented a major shift in sewerage management policy. Since its commencement in 1994, the private consortium, Indah Water Konsortium (IWK), has provided sewerage services to the public by operating and maintaining sewage treatment plants, network, desludging septic tanks, and treating sludge. The total population served by IWK has increased from less than 4 million in 1994 to over 14 million in 2001, or more than

threefold in eight years. The government's move to take over new sewage plants from the developers will increase the coverage of the population served by the concessionaire to about 14.4 million people by 2005. The Eighth Malaysia Plan (2001–5) projects spending of a total RM1.5 billion on sewerage, of which RM1.2 billion is for new sewage treatment plants and RM300 million for refurbishment.

Water and air quality and ozone-depleting CFC consumption

The introduction of the Environmental Quality Act 1974 saw the beginning of environmental quality regulations aimed at controlling and preventing air and water pollution in Malaysia. In the 1970s, one of the major causes of water pollution was attributable to agricultural activities and agro-based industries, including the processing of palm oil and rubber. Close cooperation between the government agencies, private sector, and research institutions, innovative and agreeable regulations like the Environmental Quality (Prescribed Premises) (Crude Palm Oil) Order 1977 and the Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Order 1978 resulted in drastic reductions in the water pollution load from these industries. In fact, success in this area has led to Malaysia becoming a leading country in the transfer of these environmental technologies to other developing countries with such industries.

For other industries, especially manufacturing, a command-and-control approach has been adopted with imposition of stiff penalties and fines through the Environmental Quality (Sewage and Industrial Effluents) Regulations 1979, Environmental Quality (Clean Air) Regulations 1978, and Environmental Quality (Scheduled Wastes) Regulations 1989. The Kualiti Alam Integrated Schedule Waste Treatment plant, which began operations in 1998, is expected to provide proper disposal of scheduled wastes in Malaysia. Though current industry feedback seems to be quite negative about the charges set by Kualiti Alam, industries have generally welcomed this effort, and the government is taking measures to improve the use of this plant by the SMIs, including setting up transfer stations.

Beginning with the Environmental Quality (Clean Air) Regulations 1978, the Department of Environment has continuously made efforts to control air pollution in Malaysia. The latest regulation to be implemented is the Environmental Quality (Control of Emission from Motorcycles) Regulations 2003.

A series of regulations was also set up to meet Malaysia's commitment to the Montreal Protocol. This includes the Environmental Quality (Prohibition on the Use of Chlorofluorocarbons and Other Gases as Propellants and Blowing Agents) Order 1993, the Environmental Quality (Halon Management) Regulations 1999, the Environmental Quality (Refrigerant Management) Regulations 1999, and the Environmental Quality (Delegation of Powers) (Halon Management) Order 2000. These regulations provided the framework which guided the phasing out of ODS use in the industries involved.

Fiscal incentives have been provided by the government to encourage the industries to use environmentally sound technologies. These provide for a special allowance at an initial rate of 40 per cent and an annual rate of 20 per cent (to be written off within a period of three years) for capital expenditure on related machinery and equipment. Fiscal

incentives are for companies that are waste generators and wish to establish facilities to store, treat, and dispose of their wastes, either on-site or off-site; and for companies undertaking waste-recycling activities. There are also funding facilities available at the Small and Medium Industries Development Corporation (SMIDEC) for SMIs to undertake environmentally related activities.

Future challenges

Strengthening coordination

While the legislation and regulations are in place for moving towards sustainable development, the institutional, human, and financial resources to enforce these measures act as constraints. This is particularly evident where, for example, national-level legislation has to be implemented by state agencies. Hence, steps are being taken to strengthen coordination and optimize the use of available resources in ensuring sustainable development.

Implementing access and benefit sharing

The National Biodiversity–Biotechnology Council has been tasked with providing guidance and coordination for the management of Malaysia's biodiversity resources. In the utilization of biodiversity resources, there is a need to develop legal requirements to ensure that there is access to, and benefit sharing of, these resources, including equitable benefits for traditional knowledge.

Ensuring sustainable forest management

In Malaysia forestry comes under the jurisdiction of the respective state governments which determine allocations of public forest harvesting rights and management priorities. The challenge is to ensure that national policies are implemented uniformly at state level. State Forestry Departments will need to adopt strategies of sustainable forest resource management which are innovative and imaginative through enhanced human resource development, and treating environment as an integral part of management in order to ensure maximum economic and social benefits are derived from managing forest resources based on a set of internationally agreed criteria and indicators.

Ensuring sustainable energy management

As Malaysia moves inexorably towards developed nation status, energy requirements are certain to increase. The country will therefore require substantial financial resources to develop additional generation, transmission, and distribution capacity. Malaysia has substantial hydroelectric resources with many advantages, but developing hydroelectric capacity is extremely capital-intensive and often has socio-economic and environmental impacts. There is also an allocation problem due to the

availability of hydroelectric resources in Sabah and Sarawak while the greater demand for energy is in Peninsular Malaysia.

The country is expected to become a net oil importer around 2010, and gas and coal are already being imported. Effective transfer of appropriate energy technologies would enable Malaysia to harness unique domestic renewable energy sources, improve energy efficiency, increase self-sufficiency, and later, export these energy technologies.

Maintaining a sustainable water supply and equitable resource allocation

Malaysia is developing a National Water Policy. A common policy would promote integrated development, equitable allocation of resources, a uniform regulatory framework and a set of water standards, harmonized water tariffs, greater cost recovery, and overall environmental integrity.

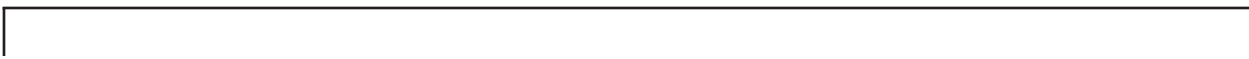
Reducing water and air pollution

Reducing pollution from household sewage would provide a major improvement in the quality of the country's rivers. Similarly, effluents from manufacturing industries should be minimized, especially by exercising greater control over the pollution from SMIs. In this respect, collaboration between the Department of Environment and local authorities is anticipated.

In addressing the air pollution issue, more rigorous enforcement is required to address emissions from vehicles, industries, and also open burning activities.

Biotechnology opportunities

Biotechnology may potentially offer new possibilities for boosting the production of food, medicines, energy, specialty chemicals, and other raw materials. However, the potential risks to animal and human health, as well as to the environment, must be studied and well managed, preferably within a national biosafety framework.





MDG 8

Develop a Global Partnership for Development

Malaysia is in transition from being a recipient of Official Development Assistance (ODA) to becoming an international development partner. This transition occurred as the country changed from an agrarian to an industrial, knowledge-based economy, and is reflected in its progression from a producer of primary commodities to a supplier of technology-intensive manufactured goods. Malaysia, like other developing countries, had a history characterized by poverty, unemployment, lack of basic social infrastructure, and lack of capital to finance development. Unlike many other developing countries, Malaysia is made up of a multiplicity of cultures and ethnic groups.

The task of developing Malaysia was challenging, given the economic and social context in the early years of its development history. While tailor-made development policies were designed by Malaysian policy makers to meet the specific requirements of the country, the international community, including the multilateral development agencies, supported the development process with official funds, technology, and expertise to complement domestic resources.

The external assistance received by Malaysia since the 1970s was largely ODA (Box 8.1). Limited flows of ODA were made available to Malaysia in the form of technical assistance. Soft loans provided by Japan and grants from bilateral and multilateral sources, such as the United Nations (UN) and its specialized agencies, also constituted part of the ODA received. Capital assistance from multilateral financial institutions such as the World Bank (WB), the Asian Development Bank (ADB), and the Islamic Development Bank (IDB), as well as from bilateral sources, was provided at near market rates of interest and did not constitute ODA. Malaysia is thus, a nominal aid recipient country.

Box 8.1 DEFINITION OF ODA, ODF, AND ENGOA

Official Development Assistance (ODA)

UNDP defines ODA as resource flows to developing countries and multilateral institutions provided by official agencies, which are administered to promote economic development and the welfare of the developing countries and which are concessional in nature, with a grant element of at least 25 per cent, calculated at a discounted rate of 10 per cent. It includes official flows in the form of grants (cash, goods, or services) and concessional loans, as well as technical cooperation. Grants, loans, and credits for military purposes are not included.

Official Development Finance (ODF)

ODF refers to financial flows, which are both concessional and non-concessional, to recipient countries. They are primarily in the form of loans from governments and multilateral institutions with interest rates at or close to the market rates.

External Non-Governmental Organization Assistance (ENGOA)

(ENGOA) refers to resource flows from private foundations and NGOs in donor countries, usually in the form of grants and technical cooperation to NGOs and sometimes to official agencies in developing countries.

As Malaysia transformed itself economically and socially over the past three and a half decades, it embarked on a modest programme of cooperation with other developing countries through the Malaysian Technical Cooperation Programme (MTCP). The MTCP

provided capacity building to developing countries to enable them to participate effectively in the global economy. By so doing, Malaysia reaffirms its commitment as a responsible member of the international community.

Trends in global partnerships

Openness and economic growth

Malaysia has an open economy with the value of trade exceeding its national output in recent years. The openness of its economy is reflected in trade and investment flows to the country and its financial system.

Malaysia has been liberalizing its trading regime by progressively dismantling tariff structures to promote the free flow of goods and services and to stimulate international trade. The average bound non-agriculture tariff for Malaysia for the period 2003–4 is 14.9 per cent, which is much lower than that of most developing countries (Table 8.1). Malaysia has also engaged in extensive consultations with multilateral organizations like the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO) to further liberalize the trading environment and to encourage the free flow of goods and services.

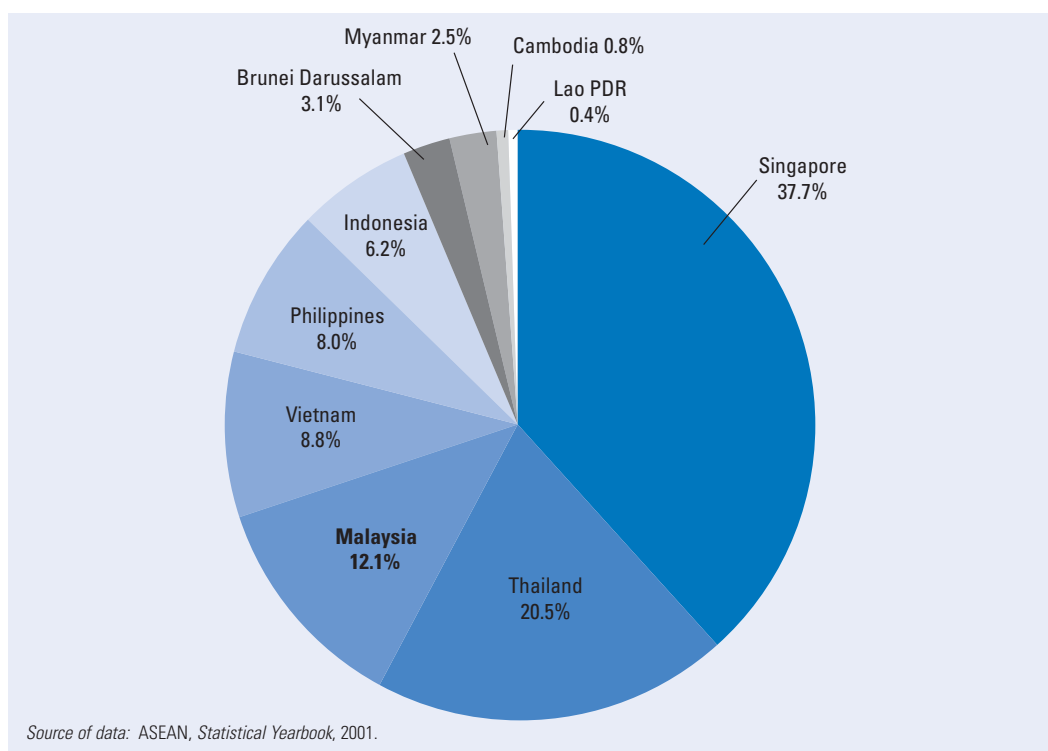
Table 8.1 Average Bound Tariff Rates in Selected Developing Countries, 2003–2004

Country	Average Bound Tariffs (%)	
	Non-Agriculture	All Products
Brazil	30.8	31.4
China	9.1	10.0
Egypt	28.3	37.2
India	34.3	49.8
Indonesia	35.6	37.5
Malaysia	14.9	14.5
Mexico	34.9	34.9
Philippines	23.4	25.6
Pakistan	35.3	52.4
Thailand	24.2	25.8

Source of data: Malaysia, Ministry of International Trade and Industry, 2003.

The progressive liberalization of the investment environment has also had a positive impact on Malaysia's growth. Liberalization and deregulation measures adopted by the country have contributed to enhancing the flow of external private capital, such as foreign direct investment (FDI), market loans, and portfolio equity investments, into the country. During the period 1995–2000, Malaysia attracted 12.1 per cent of the total FDI inflows into ASEAN, after Singapore, at 37.7 per cent and Thailand, at 20.5 per cent (Figure 8.1).

Figure 8.1 FDI in ASEAN by Host Country, 1995–2000 (% share of total ASEAN)



Apart from taking measures to further liberalize the trading and investment environment, steps were also taken to liberalize the financial sector, beginning in the mid-1980s. When the financial crisis occurred in 1997, Malaysia adopted wide-ranging financial sector reforms to restore market confidence and stability through measures to improve transparency, corporate governance, and the resilience of the financial system. The crisis also served to highlight the need for better corporate governance and a more resilient financial system capable of withstanding external shocks.

Malaysia and external trade

Malaysia's record of sustained high levels of economic growth was in part due to the increasing openness of the economy. In 1980, exports of goods and services were 58 per cent of GDP. By 2003, this had doubled to over 100 per cent. The nature of these exports

had also changed substantially. In 1980, exports were largely accounted for by Malaysia's primary products (most notably, rubber, palm oil, and petroleum). In 2003, 56 per cent of Malaysia's exports were electrical and electronic products. Export earnings had allowed Malaysia's imports to rise, especially from the ASEAN countries, whose share of imports rose from 16 per cent in 1980 to 24 per cent in 2000.

On 31 July 2004, the WTO's 147 member governments approved a package to reduce barriers to trade and open up markets for developing countries. The WTO claimed the agreement could be worth US\$520 billion to the world economy by 2015. Given the outward-looking nature of Malaysia's economy, the agreement is expected to provide additional markets for Malaysia's exports and allow Malaysia to increase imports from developing countries, both within and outside the ASEAN region.

Financing development and managing debt

The strong position of government finances, due primarily to strong economic growth and revenue buoyancy, provided the necessary financial resources for financing development. Public sector finances were complemented by a high rate of domestic savings and ample liquidity in the banking system. In addition, Malaysia's strong credit rating, pragmatic macroeconomic and financial management, and political stability supported efforts to mobilize external private capital, thereby reducing dependence on foreign aid to finance development. Malaysia also maintained a prudent debt management policy and kept a tight rein on its debt service ratios, prepaying and refinancing some of its loans during those years when revenue growth was strong to maintain a manageable external debt.

Foreign aid and development in Malaysia

Foreign aid supplemented domestic resources in addressing the challenges of poverty and redistribution in the 1970s as Malaysia embarked on the New Economic Policy (1970–90). As Malaysia entered the strong growth period of the late 1980s, the role of foreign aid changed from one of supporting efforts to reduce poverty and inequality to supporting the transformation of the economy through the provision of specialized skills, technology, and knowledge.

Foreign aid played a role in increasing Malaysia's stock of specialized skills in project planning, implementation and evaluation, policy analysis, institutional development, and the development of skills in technology/R&D. Contributions were particularly significant in the fields of agriculture, infrastructure, communications, health, and education. Foreign aid thus contributed a qualitative and strategic value to the country's development process.

In the Second Malaysia Plan (1971–5), a total of RM2.6 billion was received in the form of capital assistance and technical assistance. The amount doubled in the Fourth Malaysia Plan (1981–5) to approximately RM5.5 billion, indicating the expanded role of foreign aid in the country's development process. In the period 1991–5, the quantum of foreign assistance increased to RM 9.3 billion, representing a 68 per cent increase from the previous decade. The steady increase in the quantum of foreign aid received by Malaysia continued in the Seventh Malaysia Plan (1996–2000) when about RM20 billion

was obtained from bilateral and multilateral sources (Table 8.2). This increase reflected, in part, the expanded needs of the country in overcoming the economic and financial challenges following the financial crisis of 1997.

Although domestic funding was preferred in financing development, Malaysia resorted to external funds during the 1997 regional economic crisis, when real GDP contracted by 7.5 per cent, exports declined by 7 per cent, and outflows of foreign capital were significant. As these developments adversely affected Malaysia's ability to finance development from domestic sources, Malaysia sought both official and market loans to finance its recovery plans. Malaysia obtained Yen loans totalling US\$4.12 billion disbursed under the New Miyazawa Initiative to assist Asian countries adversely affected by the crisis, as well as those from the WB and IDB.

While the value of foreign aid has increased in absolute terms between 1970 and 2000, the amount received represents a small proportion of the government's development allocation provided for the same period. For example, the total value of foreign aid flows in the 1970–2000 period of RM50 billion represents only 27 per cent of the development allocation for the Eighth Malaysia Plan (2001–5) of RM170 billion, indicating the relatively small role played by foreign aid in Malaysia.

Table 8.2 Foreign Aid to Malaysia, 1971–2000

Year	Malaysia Plan	Technical Assistance	Capital Assistance	Total
	period	(RM million)	(RM million)	(RM million)
1971–5	2MP	329.9	2,311.8	2,641.7
1976–80	3MP	na ¹	3,907.0 ²	3,907.0 ³
1981–5	4MP	327.7	5,203.0	5,530.7
1986–90	5MP	531.0	8,067.0	8,598.0
1991–5	6MP	1,469.6	7,827.0	9,296.6
1996–2000	7MP	1,625.0	17,955.9	19,580.9
TOTAL		4,283.2	45,271.7	49,554.9

Sources of data: Malaysia, five-year plans, various years.

1. Not available.

2. Includes market loans.

3. Total based on loans only.

4. Based on exchange rate of US\$1=RM3.80.

Sources and impact of capital assistance

A total of a RM45 billion was received by Malaysia in the form of capital assistance over the period 1970–2000, obtained mainly from the multilateral financial institutions such as the WB, ADB, and IDB. Funds received from bilateral sources were mainly from Japan which provided a substantial quantum of soft loans, reaffirming the special relationship between the two countries.

During the NEP period, loans assisted in poverty alleviation and measures to improve the living standards of the rural population. They were also used to increase productivity and create employment opportunities. This continued into the NDP period. Apart from

poverty, utilization of foreign aid was also for the development of the strategic economic and social sectors. WB loans were used mainly to finance rural development and agricultural projects, as well as projects relating to education and health, while ADB loans were used to finance projects on infrastructure and utilities. Yen loans financed projects for infrastructure, energy, power generation, and education.

As capital assistance was utilized mainly in financing economic and social projects, it impacted positively on various aspects of economic and social life in Malaysia. It reduced poverty through the development of agriculture and the rural sector, as well as through the provision of technical skills for research and administrative institutions which were responsible for the development of the sector. It also assisted in efforts to eradicate poverty through the financing of projects aimed at enhancing productivity and creating employment. In addition, capital assistance helped to improve living standards and the quality of life of the people through improvements in education and health.

Sources and impact of technical assistance

In financial terms, the technical assistance received by Malaysia had been relatively small, compared with capital assistance. In the period 1970–2000, the value of technical assistance received was only about one-tenth of the value of capital assistance received. Most of the technical assistance received was bilateral in nature, while the rest was from multilateral sources. Japan was by far the largest bilateral donor of technical assistance, while the UN organizations and its specialized agencies provided the largest multilateral source. Technical assistance was also received from multilateral financial institutions, as well as donor countries such as Denmark, Germany, and to a lesser extent, the United Kingdom, Australia, and Canada.

The impact of technical assistance is generally less tangible than that of capital assistance, given that the impact of most of the development projects financed by large project loans is more quantifiable than that of projects supported by numerous but small technical assistance interventions. This is primarily because capital assistance projects are largely physical and structural in nature, whereas the impact of technical assistance which led to outcomes such as national capacity, human resource development, policy reform, good governance, and institutional development is not easily measurable.

While it is difficult to quantify the impact of technical assistance, it had a positive influence on the policy environment in Malaysia, mainly through the refinement of macroeconomic, sectoral, and social policies. In this regard, the UN agencies contributed to the shaping of policies in a wide range of areas, including health, population, social welfare, child and gender development, education, and capacity building. The UN also assisted in policies on intellectual property rights, environmental management and clean technology, development of the minerals' industry, and rural and agricultural development. The technical assistance provided by the multilateral financial institutions, including the WB, also provided policy inputs for strengthening the financial sector and enhancing export competitiveness. Bilateral technical assistance from Japan focused on strengthening economic competitiveness, human resource development, environment and sustainable development, and rectification of disparities. Assistance from Denmark

targeted sustainable development and environment protection while German aid focused on forest management, human resource development, and environmental protection.

Technical assistance also had a significant impact on human resource development through specialized formal training programmes and on-the-job training. Both multilateral and bilateral donor agencies provided training opportunities primarily for public officials, although technical assistance on clean technologies was provided through the Montreal Protocol to counterparts in the private sector. Bilateral donors also provided capacity-building opportunities in advanced technical skills through the establishment of training institutions such as the Japan-Malaysia Technical Institute, the German-Malaysia Institute, the British-Malaysia Institute, the Malaysia-French Institute and the Malaysian-Spanish Institute.

Technical assistance interventions have also had a significant impact on organizational development and institutional innovation in Malaysia, transforming some of these institutions into regional centres of excellence, including institutions such as the Forest Research Institute Malaysia and the Institute for Medical Research. Other institutions that benefited from such technical assistance included the Standards and Research Institute of Malaysia, the Malaysian Agricultural Research and Development Institute, the Fisheries Training Institute in Penang, Institut Teknologi MARA, Politeknik Ungku Omar, the Federal Land Development Authority, the National Livestock Development Authority, the Fisheries Development Authority, the National Population and Family Development Board, the Telecommunications Department, and the Department of Statistics.

Efficient use of foreign aid

Malaysia has generally managed foreign aid resources in an efficient and effective manner. Its success is due largely to centralized management by a pool of well-trained and experienced manpower in the Economic Planning Unit that undertakes to coordinate and manage projects supported by foreign aid and aligns them with the country's development priorities. Other success factors include a culture of accountability; well-conceived, implemented, and monitored projects; and the involvement of the private sector in project implementation, particularly in infrastructure, energy, and industry projects.

While Malaysia has made impressive economic gains, it can continue to benefit from foreign aid, particularly technical assistance in focused areas. Benefits can be derived from international experience, research, and technical expertise to improve the productive capacity of the rural sector, and increasing the country's talent and skills base, particularly in enhancing innovative and inventive capacity. It can also assist the country in building a knowledge-based economy and in meeting the challenges of nation-building in the era of globalization and liberalization.

Beyond aid: towards self reliance through international partnership

As new global and regional challenges emerge that go beyond the capacity of any one country to solve, collective self-reliance and cooperation among developing countries will become more important. Although Malaysia's access to ODA and ODF resources has been reduced corresponding to its economic growth, Malaysia has taken a conscious policy decision to promote the spirit of collective self-reliance, partnership, and mutual benefit within the framework of South-South cooperation and Technical Cooperation among Developing Countries. This approach has had two important outcomes: it has changed the traditional donor-recipient relationship to one of partnership-in-development and intensified development cooperation among developing countries. Such cooperation is not exclusive and is based on open regionalism and collaboration with developed countries. For Malaysia, international cooperation has promoted the sharing of its development experiences with other developing countries. At the same time, Malaysia has greatly benefited from the collective development wisdom of other countries and from the expert advisory services of established development organizations.

International cooperation has expanded the opportunity for greater economic interaction within the region, thus promoting economic growth, and providing the opportunity for Malaysia to benchmark its achievements against international standards and best practices. At the regional level, Malaysia participates actively in regional groupings such as ASEAN and APEC to enhance intraregional trade, investment opportunities, and production networks, as well as to increase financial and industrial cooperation among countries in the region. For example, an important outcome of ASEAN's collaborative efforts was the establishment of the ASEAN Free Trade Area through which the tariff regime of the region is being progressively liberalized. Other significant milestones include the conclusion of the ASEAN Framework Agreement on Services, the ASEAN Investment Area, and the formulation of the ASEAN Vision 2020 Statement, which committed member states to economic integration and regional cohesion, with a view to establishing the ASEAN Economic Community by 2020.

Another effective instrument to foster economic development in the less developed regions is through participation in the growth triangles. Three such subregional entities have been established, namely, the Indonesia-Malaysia-Singapore Growth Triangle (IMS-GT), the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT), and the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Triangle (BIMP-EAGA). A number of projects, involving the private sector, have been implemented to expand economic opportunities in these subregions. These cross-border interactions have brought incremental growth to the less developed border regions in Malaysia as well as

of other participating countries. The growth triangle approach provides the opportunity for member countries to develop border areas into more economically viable entities.

Apart from regional cooperation, Malaysia also participated in multilateral cooperations to stimulate development cooperation and to express its views on global issues, such as the impact of globalization on developing countries, sustainable development, and international trade. It has participated actively in multilateral forums such as the United Nations and its specialized agencies, the WTO, the Commonwealth, the Colombo Plan, the Organization of the Islamic Conference (OIC), and the Non-Aligned Movement (NAM), as well as in platforms promoting South-South cooperation, such as the Group of 77, the Group of 15, the Asia-Africa Forum, and the Langkawi International Dialogue.

Malaysia has also intensified its cooperation with industrial and developing countries, a move that has brought both political and economic dividends for the country. The conclusion of various agreements to facilitate economic interaction between Malaysia and the participating countries has promoted trade and investment through improved market access and more effective procedures.

Malaysian Technical Cooperation Programme (MTCP)

Malaysia's commitment to the philosophy of international cooperation for development was expressly manifested in the establishment of the MTCP in 1980. The MTCP is a bilateral programme of cooperation designed to assist other developing countries, especially the least developed ones, through the sharing of Malaysia's development experiences and expertise in areas in which it has a comparative advantage. It is also an extension of its belief that developing countries can derive greater benefit from the development experiences of other developing countries which have encountered similar development challenges. Unlike foreign aid, which is often linked to donor values and priorities, cooperation among developing countries represents a more neutral approach under South-South cooperation. The MTCP was established to show the Malaysian government is committed to South-South cooperation, and to share Malaysia's experience with other developing countries.

The MTCP differs from programmes of cooperation of other countries in one important respect: it focuses primarily on capacity building and human resource development. Malaysia is of the view that a country's ability to attain an acceptable standard of human development depends on the quality of its human capital, and this process starts with the public sector officials who provide the vision, direction, strategies, policies, implement plans, and programmes on which development is based.

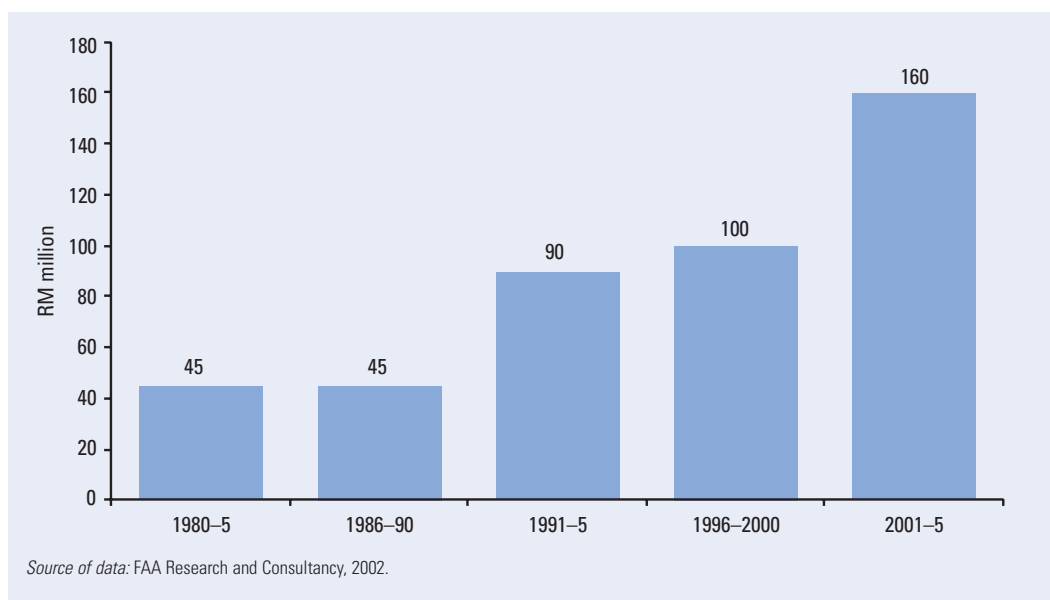
Another distinguishing feature of the MTCP is the large number of countries that have benefited from its programmes. Starting with 35 countries, its outreach expanded to 46 countries in 1990, and the number of countries doubled to 92 by 1995. By 2000, MTCP's coverage expanded to 121 countries. Currently, it serves 135 countries representing 10 regions: ASEAN, Other South-East Asia and Asia, South Asia, the Commonwealth of Independent States, North Africa and West Asia, South America, East and Central Europe, Africa, the Pacific Islands, and the Caribbean.

MTCP activities are implemented through five modalities; namely, long-term courses at tertiary level, short-term specialized training courses, study visits and practical attachments, expert and advisory services, and project-type and equipment supply cooperation.

MTCP operations are funded through various mechanisms, including full funding by the Malaysian Government, full funding by the participating country, full funding by third parties, that is donor countries and multilateral institutions, and cost-sharing between the Malaysian Government and the participating country or third parties. Most of the MTCP activities are, however, fully funded by the Malaysian Government. Given its successful track record in managing the development process, many donor countries and organizations have found it useful to familiarise government officials from other developing countries with the Malaysian experience. MTCP is cooperating with donor countries and organizations to fund such projects on a cost-sharing basis and through the implementation of the Third Country Training Programme (TCTP), which has been increasing in recent years, especially in cooperation with the Japan International Cooperation Agency (JICA).

Even before the establishment of the MTCP, Malaysia had assisted other developing countries by offering training placements in its institutions. For example, 705 overseas participants were trained in various disciplines from 1971 to 1975. Since its inception, a total budget of RM440 million had been allocated to the MTCP. The programme which began with an allocation of RM45 million in 1980–5 expanded to RM160 million in 2001–5, representing a 256 per cent increase from the 1980 allocation (see Figure 8.2).

Figure 8.2 Malaysian Technical Cooperation Programme Budget Allocations, 1980–2005



Where MTCP makes a difference. The primary focus of MTCP is human resource development through qualitative improvements in human capital. Apart from the general range of training courses offered to participants from developing countries, the MTCP also offers special courses tailored to the specific needs of the developing countries, including the least developed countries and those with economies in transition. All programmes offered are based on the priorities of the collaborating countries.

Taking into account Malaysia's track record in poverty reduction and economic growth, MTCP participating countries have benefited from training courses that include economic planning and development, poverty alleviation, and central banking. As at 2001, 29 participants had undergone long-term post-graduate courses in economics, and one in banking. In addition to courses, a number of study visits and attachment programmes focusing on various aspects of development, including macroeconomic management, central banking and financial management, privatization, the capital market development, have also been organized.

In recognition of the quality of the MTCP, the services of Malaysian experts have been much sought after by participating countries. For example, a Malaysian central banker served as the Governor of the Central Bank of Namibia from 1994 to 1997, while Kenya requested financial experts in the area of budget formulation. Malaysian economists have also been requested for specific short-term missions by Ghana, the Kyrgyz Republic, Namibia, Cambodia, Algeria, South Africa, and Sudan. MTCP training and academic courses, including study visits and the services of experts, provided the platform for public officials from developing countries, especially the least developed and island developing countries, to be acquainted with Malaysia's development policies, strategies and programmes.

In addition, a number of MTCP training programmes have also been offered to assist participating countries in sectoral development, particularly in the agriculture and industrial sectors. A total of 88 short courses had been organized up to 2004, and 10 participants have undergone long-term courses in these areas. Fourteen study visits and attachments have been organized and 10 agricultural experts have been dispatched to various countries. Further, 10 project-type cooperation programmes have also been implemented.

MTCP has also become the principal instrument by which Malaysia shares its industrial development experience with other developing countries. Up to 2004, eight short courses on investment promotion had been organized. MTCP participants have also benefited from technical courses in road construction and maintenance and development of small and medium-scale industries. In addition, the national oil company, PETRONAS, has provided about 100 scholarships for international students from South Africa, Sudan, Vietnam, and Turkmenistan to attend technical degree courses at Universiti Teknologi PETRONAS. It also supported another 100 participants to attend business management and technical courses in the area of oil and gas.

A number of experts were also been dispatched to Tanzania and Namibia for energy/gas related industry consultations. Fifty-three technicians in various technical and vocational specializations were sent to Cambodia from 1994–2003. The construction industry made

notable contributions to developing countries under the ambit of MTCP. Malaysia's experience in providing houses for the poor, which has benefited a number of developing countries, including South Africa, Seychelles, and Mauritius.

Malaysia has also contributed to the development of the social sector of developing countries, particularly in the area of rural health care, medical research in tropical diseases, nutrition, education and in the effective planning and implementation of social programmes. From 1980 till 2001, a total of 111 participants from various countries had attended MTCP-supported degree courses in medicine and library management. Other courses include archives management; fire services training; gender perspective in development training; the MTCP also sponsors study visits and attachment of officials to health management, education planning and library management. For the promotion of ICT development, since 1981 MTCP has provided ICT training for the benefit of participants from developing countries. Study visits have also been organized and in 2002, Malaysia presented 16 Malaysian-made computers each to the University Technology in Uzbekistan and Lao PDR.

Non-official development flows

Official flows through government-to-government channels are not the only form of development cooperation between Malaysia and other countries. A number of non-official flows, particularly through NGO channels, have complemented the official flows in transferring skills and other forms of assistance to developing countries. These non-official flows are participatory in nature, and have a more direct impact at the community level. However, data on these flows are incomplete, as they are not captured in official records. Many Malaysian NGOs have benefited from grants provided by foreign NGOs and private foundations. A number of Malaysian NGOs have also provided aid and emergency relief assistance to other developing countries. Two Malaysian NGOs have rendered such international assistance. The first is the national volunteer organization, SALAM, which was established in 1997. SALAM implements its programme of cooperation through two modalities, namely long-term cooperation, where volunteers are attached to missions for between 6 and 12 months, and emergency relief operations of about two weeks. It has dispatched volunteers to countries such as Lao PDR, Cambodia, Vietnam, Sri Lanka, Timor Leste, and Iran. They have rendered technical cooperation in the field of community development, primary health care, and the learning of English. Approximately US\$200,000 has been spent on its international programme of cooperation.

Another non-profit medical organization, MERCY Malaysia, established in 2001, is dedicated to providing humanitarian services in crisis and non-crisis situations. It carried out missions to, among others, Afghanistan, Palestine, Iraq, Sri Lanka, Iran, and Cambodia on activities such as supplying medicine and equipment, rebuilding of hospitals and schools, distributing food, and providing community service.

Partnerships with UN funds, programmes, and specialized agencies

United Nations Technical Assistance partnership programmes in Malaysia began shortly after Independence. FAO and WHO established Representative Offices around 1963. UNICEF established an official programme of cooperation in 1964. In 1972, UNDP began its Country Programmes, providing assistance in support of Malaysia's five-year development plans. UNFPA's engagement began a year later in 1973, providing support to programmes in population, family planning, and reproductive health. In 1975, the UNHCR Office was established, initially to help with issues related to the arrival of the 'boat people' from Vietnam.

The nature of the relationship between the Government and UN agencies has evolved in tandem with Malaysia's development over the past three and a half decades. Initially, UN agencies merely provided grants to the Government for various programmes and projects. Currently, assistance is largely provided on a cost-sharing basis and mainly focused on building national technical capacity. At the macroeconomic level, the UN moved its primary focus on economic diversification to supporting efforts at positioning Malaysia to meet the challenges of the global economy, including building a K-economy, facilitating the exchange and sharing of Malaysia's experience and expertise with South countries, and supporting sustainable development. In the social sector, UN agencies have focused, *inter alia*, on the health and well-being of children, gender issues, reproductive health, and mainstreaming the threat of HIV/AIDS as a development issue.

Today, the role played by UN agencies in Malaysia is that of a trusted development partner in supporting national efforts at meeting the emerging challenges. The UN also provides Malaysia with a network to share its development experiences and expertise with other developing countries, as Malaysia itself takes on the role of a development partner in the global community of nations.

Challenges Beyond the MDG Targets

The preceding chapters have identified some key constraints that need to be addressed for Malaysia to advance beyond the MDG targets and realize its vision of becoming a fully developed nation by 2020. Based on an accounting of the evidence of development gains made over the most recent past decades, the country is on track to achieving its ambitions. Development gains have been achieved in a context of political and macroeconomic stability and there has been a responsiveness to adapt quickly to changing world conditions. For Malaysia to become a fully developed nation by 2020, this enabling environment needs to be maintained, including continued human resource development, especially with emphasis on higher education and skills training. Below are pointers to some of the main challenges that need to be met.

Poverty and inequality

Malaysia's successful poverty-reduction efforts confirm the interactive roles played by economic growth and public interventions to improve the lives of the people, especially its poor. Public policies that raise human capabilities, most notably through health and education, have both pro-poor and pro-growth effects. Accelerated growth, coupled with a favourable natural resource endowment, provides the government with a strong revenue base to raise capabilities even further. Sustaining economic growth to provide employment opportunities and further improve standards of living of the poorest will continue to be a challenge.

The vast majority of the remaining poor households are *Bumiputera* and are mainly concentrated in the agricultural sector, especially in the least developed states. These groups of remaining poor, especially the indigenous communities, are less accessible and may be less amenable to conventional poverty-reducing programmes. Targeted and participatory approaches will be needed, taking into account new layers of poverty that are emerging, including among older persons and the physically disabled, due to the country's rapid economic growth and related social and demographic changes.

Current low levels of absolute poverty suggest that a change of emphasis in public policy may now be called for. There has been relatively little progress in improving overall income inequality since 1990 and there is a risk that low-income households may feel a sense of social exclusion and limited economic opportunity. Similarly, ethnic income differentials have remained roughly unchanged since 1990, so that there is a continuing need to ensure equal economic opportunity for all Malaysia's communities.

Education

Despite the success in achieving universal primary education, challenges remain to maintain progress in improving the quality of primary education and ensuring the relevance of curricula. A special focus on expanding educational access and quality for the hard-to-reach groups is a particular challenge, both in relation to the strategies required and the costs involved.

Given the rapid use of ICT throughout the country, education policies need to be sensitive to the possible creation of a digital divide between rural and urban children, due to a less comprehensive ICT infrastructure in rural areas. Nor should teachers be left out of the education equation. Maintaining the presence of good quality teachers, especially in rural areas, will help ensure that all school-going children have access to a well-maintained and relevant education system.

Gender

A notable early success for Malaysia was its ability to close the gender enrolment gap between boys and girls at the primary schooling level. However, at the higher education level, there is concern at the emerging and increasing disparity in enrolment between boys and girls. At higher levels of education, secondary and tertiary, the enrolment of girls now greatly exceeds the enrolment of boys. The causes of this widening gap, which if maintained will have implications for Malaysia's future labour force, merit study.

At the same time, a number of constraints continue to constrain women's active participation in mainstream economic activities. These include the choice of courses at school, women's competing responsibilities at home and at work, and inadequate access to credit and market information. Women are still expected to be primarily responsible not only for reproduction but also the continuing care of the next generation. The competing responsibilities of family and career appear to restrict Malaysian women's return to the labour market after childbearing. Improved childcare facilities and more flexi-working arrangements may help increase female participation in the labour market.

With their increasing level of education, often exceeding that of men, it is to be expected that women will want to participate more fully at all levels of political life. In order to ensure their fuller representation, it will be necessary to create more space for women to take up positions in political decision making.

Improving health

Child and maternal mortality

In the context of Malaysia's relatively low levels of infant and child mortality, active advocacy must be continued to keep issues of child health on the national agenda. A priority consideration should be the reduction of marked inequalities in child mortality that exist among the states and major ethnic groups. Equity in access to services is dependent on availability of health infrastructure, sufficient numbers and categories of trained and skilled manpower, adequate supplies, and financial resources. Health personnel will need to devise new strategies to reach out to hard-to-reach disadvantaged target groups.

Sustaining maternal mortality at Malaysia's current low level, and reducing it even further, requires maintaining human and financial resource commitments and innovative programme strategies. Addressing ethnic group disparities in maternal mortality levels remains a priority. Every pregnancy faces risk, thus necessitating continuous alertness and responsiveness by the health system. The ability to sustain multi-agency support and to keep maternal health high in the health policy agenda remains a challenge for which continued advocacy is essential.

HIV/AIDS, malaria, and tuberculosis

Over recent decades, infectious diseases have assumed less significance in Malaysia relative to non-communicable diseases. The trends in absolute numbers, as well as incidence rates, have declined appreciably for malaria, but continue to rise in numbers for HIV/AIDS and TB. TB and AIDS are the leading causes of death from infectious diseases in the country. Both diseases are largely related to social problems, namely, rural and urban poverty, and intravenous drug use. Efforts and resources must be maintained to eradicate these diseases, including operational research into the causes of drug use among youth.

Strategies in disease control are most effective if evidence-based with in-built operations research to evaluate outcomes and respond efficiently to changes in disease epidemiology. This is important where resources are limited with increasingly higher programme costs and competing priorities. Implicit within this is the development of appropriate indicators by which to measure the attainment of objectives.

The prevalence of HIV/AIDS among the general population is still low and the epidemic is concentrated, giving considerable potential for containment. National multisectoral leadership is essential to thwart institutional inertia and to recognize and address social issues that fuel the epidemic, including stigma, discrimination, gender inequalities, and poverty. Community leadership can help generate locally acceptable responses, such as through discussions of behaviours and values that will lead to a reduction in the spread of HIV/AIDS.

Although there are well-established control strategies and treatments for TB, it still remains the most serious infectious disease in Malaysia in terms of incidence and deaths.

Key challenges in combating TB include increasing awareness of the disease among clinicians and medical personnel, as well as among the public, reducing poverty and optimizing access and follow-up to medical facilities, especially in rural areas, and curbing the accelerating occurrence of co-infection with HIV.

The private sector—particularly, the pharmaceutical industry—can contribute towards achieving the MDG targets in health through its research development on new drugs, pricing, licensing and corporate social responsibility policies. Furthermore, the input of non-traditional health-related sectors, namely, religious leaders and institutions, is encouraged to intensify the fight against HIV/AIDS in Malaysia. This includes the battle against substance dependence, particularly injecting drug use, thus far the primary source of HIV infection.

Overall, Malaysians currently enjoy public sector health care that is very heavily subsidized, especially for government servants, and is almost free for those with limited means. With the rapid growth of the private health sector, particularly in urban areas, people have been able to exercise their choice for health care. However, only those who can afford to pay or are covered by health insurance schemes, utilize the private sector. Rising expectations and the greater demand for specialist services, even for primary care, will lead to increased costs for, and a heavier burden on, the public health sector. Private sector support is required to consider cost-sharing schemes or models for a shared responsibility for health care.

Sustainable development

With development, Malaysia's land use has been altered from forests to agricultural use and to development projects, such as housing and industrial areas. Although the National Land Council was established to ensure that there is a coordinated approach towards land development, much of the land use has been determined by the state governments. As such, the newly formulated National Physical Plan is crucial in ensuring that there is better coordination and integration in land use planning. In addition, the newly formed National Physical Council also has a critical role to play in effecting better coordination of land development.

In past decades, the government has increased the capacity and ability of its agencies in handling various developmental issues. However, the protection of natural resources and the environment involves other developmental issues. Thus future challenges lie in the proactive and consistent coordination between the agencies (for example, environmental authorities, industrial agencies, trade agencies, land agencies, and so on) in order to improve the management of natural resources and the environment, and to ensure sustainability. The concept of integrated water resource management (IWRM) that has been adopted by the government is one good example of coordinated efforts between the different agencies to better manage the country's water resources.

The role of civil society in moving towards sustainable development becomes increasingly important in ensuring transparency and credibility. Several agencies within the government have been leading in increasing the participation of civil society in critical areas, such as the Economic Planning Unit, the Forestry Department, and the Department of Irrigation and Drainage. The forestry industry has a National Steering Committee, which consists of multi-stakeholders in a consultative platform, for the purposes of developing standards for forest certification. Similarly, the Department of Irrigation and Drainage has been working through the MY Water Partnership, which also includes participation of NGOs and the private sector. Other agencies are also beginning to include civil society participation. However, there is a need for more avenues for such participation and for the sharing of knowledge and best practices.

Foreign migrants

The effects of the influx of documented and undocumented foreign workers and their families to Malaysia on health, education, and other social and economic indicators need to be carefully monitored. For example, migrants, often coming from neighbouring countries with less well-developed health and education systems, may bring with them diseases that can be easily spread, such as tuberculosis and malaria. Screening and routine monitoring of infected migrant workers are required to contain and reduce infection.

Whether basic social services and targeted programmes should be made available to undocumented migrants needs serious policy debate, especially in the relatively less developed states. For example, the high child and MMR levels of migrant women is a continuing challenge. Migrants, especially those lacking proper documentation, often have limited access to health-care services. Unwanted pregnancies, among migrants, have resulted in attempts to abort pregnancies through medication or traditional means, self-conducted deliveries with no prenatal care, and newborns being abandoned. There is a need to target those requiring the full range of health information and reproductive services.

Improving information systems

Malaysia's social and health indicators are already relatively comprehensive. However, there remains scope for improvement in coverage, quality, timeliness, and dissemination to ensure continued relevance to the country's changing needs. Moreover, disaggregated data for age categories, subpopulations, and areas need to be made more readily available.

In the area of poverty, for example, analytical profiles of the poor would be useful to assist in targeting and identifying their characteristics and spatial distribution. More comprehensive education data could help with an understanding of household expenditure on schooling, and allow for indepth examination of relevant issues relating to gender inequality in education than is currently possible. Similarly, the availability of a regular and detailed database on contraceptive prevalence rates would provide the basis for a more comprehensive profile of maternal health.

Partnerships

Malaysia has made the transition from being a recipient of ODA to becoming an international development partner, itself supporting development programmes in poorer countries. The policies, strategies, and programmes that have led to Malaysia's remarkable development can be used to build capacities in other countries.

As the country progresses towards achieving Vision 2020, it can advantageously reaffirm its status as a development partner and create opportunities to deepen partnerships, especially with sections of civil societies that have not been able to gain benefits from past and existing development programmes.

Existing multilateral partnerships—for example, with UN funds and programmes—can be maintained and evolved alongside new partnerships. Strategic partnerships that capitalize on the intrinsic strengths of each partner can be structured to promote healthy interactions in all aspects of the economy, including the social sectors. Strong public–private partnerships, for example with the pharmaceutical industry on health, and with various multinationals on bridging the digital divide and on the environment, provide examples of areas in which to move forward at the national level beyond the existing MDG targets. Long-term commitments to the achievements of the MDGs in Malaysia, regionally and globally, can be maintained if there continue to be concerted efforts and progressively strengthened alliances between all partners.

Summing up

Already in the twenty-first century, rapid changes have begun transforming the world we knew in the twentieth century and had developed strategies to deal with. Some policies that served Malaysia well are no longer providing the momentum they did, as outcomes plateau before all the goals are finally achieved. Fresh perspectives and new approaches are needed to sustain momentum in achieving established goals, ensuring that residual clusters of needy do not become marginalized or entrenched, and their disadvantage or dependency institutionalized.

Fresh perspectives and new approaches are also needed to formulate strategies for addressing emerging challenges: the widening divide between urban and rural that can extend beyond education and technology—to income, health, and other services; the disjunction between the educational achievements of women and their opportunities in the labour force through constraints of multiple responsibilities and barriers to their advancement; the increasing need to expand the role of the private sector in sharing responsibility for some of the services that have become increasingly burdensome to the public sector. Once again, there is a challenge for Malaysia to continue in the vanguard of development, identifying critical issues, formulating appropriate policies and strategies, and moving ahead in an exemplary way.

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