





**ECONOMIC PLANNING UNIT  
PRIME MINISTER'S DEPARTMENT  
MALAYSIA**



**UNITED NATIONS  
COUNTRY TEAM  
MALAYSIA**

# Malaysia

**The Millennium Development Goals at 2010**

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# Foreword

Malaysia has experienced three decades of impressive economic and social progress, enabling it to provide for the health and education of its people, to eradicate poverty in large measure, to build excellent infrastructure and to become a major global exporter. Today we face different challenges, however, in both the external and the internal environments. The changing global landscape, financial and economic pressures, free movements of human capital, environmental issues and profits affecting the way businesses are conducted – all have imposed the need for innovative strategies and policies to continue our nation's progress towards Vision 2020.

Indeed, Malaysia has reached a defining moment in its development path where significant economic, social and government transformation is imperative to ensure that we attain Vision 2020. As the country embarks on an important mission to become a developed nation, the Government has created a framework comprising four pillars to drive change. These are the six National Key Result Areas outlined in the Government Transformation Programme; the 12 National Key Economic Areas of the Economic Transformation Programme; the strategic economic reforms in the New Economic Model; and the Tenth Malaysia Plan. These four pillars are aimed to propel Malaysia to advanced nation status, emphasizing inclusiveness and sustainability. We are adopting a radical change in our approach to economic and social development, one that is sustainable over the long term, that will reach everyone in the country and that will enable Malaysia to reach high-income status.

The Millennium Development Goals (MDGs), in my view, constitute a report card for the international community on where countries stand in these areas. Although Malaysia has done remarkably well at the national

level and is on track to achieving seven of the MDGs by 2015, there are pockets of difference subnationally. These pockets need specific interventions to increase attention to the most vulnerable population groups in order to eliminate persistent inequalities between the rich and poor, between those living in rural, remote areas or urban slums and better-off urban populations, and among those disadvantaged by geographical location, gender, age, disability or ethnicity.

We recognize that while poverty has been substantially reduced, a significant 40 per cent of Malaysian households still earn less than RM2,300 a month. Income disparity and economic differences between Sabah and Sarawak on the one hand, and Peninsular Malaysia on the other, as well as between rural and urban areas within Peninsular Malaysia, must be appropriately and effectively addressed. Towards this end, both the New Economic Model and the Tenth Malaysia Plan, which emphasize inclusive growth, aspire to provide equal opportunities to all Malaysians.

Apart from eradicating poverty, priority will be on increasing the coverage of basic infrastructure such as roads, electricity and water supplies, and communication networks. Health-care access, coverage and quality will continue to be improved. The Government intends to provide an adequate supply of affordable houses, especially for low-income households, in line with the policy of improving the quality of life. Efforts to upgrade the quality of students' education will also be made, by increasing the number of graduate teachers. To promote gender equality, steps will be taken to increase the participation of women at all levels of decision making in both the public and private sectors, including entrepreneurial ventures. Existing laws and related regulations will be reviewed to create a more conducive environment that encourages greater female participation in the workforce.

Various measures will continue to ensure the sustainability of the environment, including conservation and sustainable use of natural

resources. Emphasis will be placed on using renewable energy and on increasing energy efficiency through new guidelines, standards, laws and incentives, which will help to reduce greenhouse gas emissions.

As a result of these pertinent actions, Malaysia will be well poised to exceed the MDGs and move towards becoming a developed and high-income nation by 2020. I am proud of the achievements made so far, but I am also

aware of the remaining challenges that must be promptly and effectively addressed.

I sincerely hope that this document serves not only as a guide for Malaysia to enhance its current MDG outcomes but also as an inspiration to other nations aspiring to tread a similar path.

Dato' Sri Najib Tun Abdul Razak  
Prime Minister of Malaysia

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# Preface

At the start of the new millennium, 189 world leaders came together at the United Nations in New York in an attempt to agree on ways to ensure a better future for everyone on our planet. That Millennium Summit resulted in the *UN Millennium Declaration*, enshrining norms, values and principles on human rights, equality and democracy that the world's political leaders agreed on for the very first time. It also provided the impetus for the UN, World Bank and others to translate the principles and values of the Declaration into the Millennium Development Goals (MDGs). They comprise eight global, time-bound development goals, with targets to be achieved by 2015.

In the decade since, the MDGs have become a guiding force for action in many developing countries. At the September 2010 MDG Summit in New York, more than 140 heads of state and world leaders affirmed that progress had been impressive, even though it had been uneven and slow in certain areas. The challenge now is to galvanize the necessary political commitment, resources and implementation action to achieve the goals in the next five years.

We are now more than two thirds of the way to 2015. Malaysia has made significant progress towards achieving most goals. The MDG review in 2005 noted that Malaysia had achieved most of the MDGs ahead of the target date and had also shown progress in moving towards some of the goals and targets that it had yet to achieve. The areas in which it lagged included maternal mortality; women in managerial positions and female political representation; HIV/AIDS (then on the rise); and the persistence of tuberculosis at a relatively high level.

This 2010 review, in addition to assessing national progress at the aggregate level, adopts a disaggregated view of MDG

progress and achievement wherever feasible. It looks at performance at subnational levels by state, rural-urban location, gender, ethnicity, age group, income group and other relevant disaggregated categories. This approach is in keeping with the spirit and intent of the MDGs to promote equitable and inclusive development, and to localize the targets, making them relevant to country-specific realities, circumstances and aspirations.

This review seeks to identify areas and subnational population groups that have been left behind or out, significant gaps and disparities, as well as emerging issues that have become important as a consequence of Malaysia's chosen development path. Such an exercise should help focus attention areas for urgent action in the context of Malaysia's recently announced Government Transformation Programme, the Economic Transformation Programme, the New Economic Model and the Tenth Malaysia Plan, which seek to help the country achieve Vision 2020.

This Report, prepared by the UN in Malaysia in close cooperation with the Economic Planning Unit of the Prime Minister's Department, reflects Malaysia's success in addressing many, if not all, of the MDGs. The disaggregated assessment confirms the 2005 Report's overall findings that Malaysia's achievements were impressive in aggregate terms. Still, attending to some emerging areas of concern is now urgent in view of Malaysia's ambitions to promote inclusive development and become a developed high-income nation by 2020.

While Malaysia has achieved the aggregate MDG objective of halving poverty – which fell from 17 per cent in 1990 to 8 per cent in 2000, and was below 4 per cent in 2009 – rural Sabah is not on track to achieve the poverty MDG by 2015. Nationally, income inequality remains high and has not substantially improved over the last 20 years. It is now time for Malaysia to prioritize relative poverty as a major policy axis, to ensure that it safeguards the welfare and well-being of marginalized

groups and, at a minimum, does not increase entrenched inequalities. Specific policy measures will have to be designed and effectively implemented because different groups in the bottom 40 per cent of the population will require approaches best suited to their needs.

School attendance is used by Malaysia as a proxy for the literacy rate, which has risen steeply and is now above 95 per cent for 15–24-year-olds, both boys and girls. Many experts question, however, whether this is an accurate proxy. Moreover, some indigenous minority groups continue to be left behind even by this measure. The principal challenge now is the quality of education, especially given the country's aspirations to become a high-income economy.

Malaysia has done well in achieving virtual gender parity in access to education for boys and girls. However, women's participation in the labour force has stagnated over the past 25 years at 45–50 per cent. In 2007, women also earned 28 per cent less than men, little changed from 1997. The reasons for these gaps need to be investigated. Furthermore, urban households headed by women have a much higher probability of being poor than those headed by men.

Women also remain very under-represented in Parliament and state assemblies as well as in managerial and executive positions, despite outnumbering men 3:2 in tertiary education enrolment. And while Malaysia should be commended for recently removing some of its reservations on the Convention on the Elimination of Discrimination Against Women, action needs to be taken to eliminate its remaining reservations.

Further progress on the child mortality-related MDG will be more difficult, as many of the underlying issues identified are "last-mile issues", requiring approaches and instruments more finely tuned than in the past.

Similarly, the aggregate maternal mortality ratio (MMR) has plateaued at around 28 per 100,000 live births for the past decade, down from 44 in 1990. Although low by developing

country standards, it is still relatively high compared with developed countries, where the MMR is around 6. The current ratio is also far from the MDG target of reducing the MMR by three quarters from 1990, which would require a reduction to 11 per 100,000 live births. On current trends, it is unlikely that Malaysia will meet this target by 2015. Recognizing this, the Ministry of Health has set itself a target of 20 by 2015.

Maternal and reproductive health is also associated with access to contraception. Malaysia's unmet need for family planning remains high and is increasing, resulting in unplanned pregnancies and unwanted births, especially for women with less education.

Based on notifications and screening, including expectant mothers, the spread of HIV has been halted and has begun to plateau, though uncertainties remain about its sustainability, given emerging trends in transmission modes. Nevertheless, Malaysia's HIV/AIDS epidemic has spread to other most-at-risk population groups such as female sex workers, the transgender population and men having sex with men. The proportion of women with HIV has also almost doubled from an already significant 9.4 per cent of reported cases in 2000 to 18 per cent in 2009. This is also the case for men having sex with men, but on a lower trajectory.

The notification rate for tuberculosis has remained largely unchanged from 1990, with indications of a slight upward trend in the past six years. However, the number of new cases has grown by 80 per cent and the number of deaths has increased by 2.5 times. Multi-drug-resistant tuberculosis, currently less than 1 per cent of total cases, is showing a gradual rise. Malaysia has a well-established system of detection and treatment, though management and control have to be better coordinated with broader social and economic programmes that seek to reduce poverty, address the situation of migrants and reduce the distance between health services and people.

Much of the enabling policy framework is in place to ensure environmental sustainability. Still, Malaysia's commitments to the global community and to itself – as attested by the various Malaysia Plans, by legislation and policies for environmental and resource management, green energy, physical planning and climate change – need to be followed up to ensure much better implementation, coordination, monitoring and evaluation. Malaysia should also develop appropriate incentives for states and the private sector to implement initiatives and to comply with national policies and objectives.

Malaysia, exemplary in the provision of safe water and improved sanitation for its people, achieved the target of halving the proportion of people without access. But too many people in the states of Kelantan, Terengganu, Sabah and Sarawak remain without access to either or both. Action is needed to address their needs.

The extension of basic telecommunications infrastructure to rural areas in Sabah and Sarawak remains unsatisfactory, contributing to the wide digital divide between urban and rural areas and between high-income and low-income population groups. Thus the bottom 20 per cent of households by income had almost no access to the Internet in 2007. The relatively low access by even the highest 20 per cent should be a matter of concern, given Malaysia's aspirations to transform itself into a high-income economy by 2020.

On the Global Partnership for Development, Malaysia has moved from being a net recipient of official development assistance to becoming a development partner with other developing countries, most notably through the Malaysian Technical Cooperation Programme. However, Malaysia's national interests and foreign policy objectives would benefit from a more strategic approach to South–South cooperation. This would allow

the country to punch above its weight in the international system and to regain some of the leadership it exercised in this area in the past.

Having achieved most of the MDG targets at the aggregate level, Malaysia now faces a dual challenge if it is to achieve all MDGs by 2015 and realize its ambition of becoming a developed nation by 2020. It needs to make further progress in addressing the MDGs for which it is still not on track nationally. And it needs simultaneously to focus action on identified areas of priority at the disaggregated level. Malaysia can be congratulated on its progress so far, but policy makers and the Malaysian people should be encouraged to turn their attention, urgently, to cover the remaining distance by addressing the outstanding issues highlighted in this Report.

On behalf of the UN Country Team in Malaysia, I would like to take this opportunity to thank, especially, Dato' Noriyah Ahmad, Director General of the Economic Planning Unit (EPU) of the Prime Minister's Department, and Dato' Mat Noor Nawawi, Deputy Director General I of the EPU, for their commitment and support in the preparation of this Report. I would also like to thank the EPU's Technical Team, all our consultants, especially the Team Leader Mr. Khoo Khay Jin, who worked tirelessly and showed outstanding commitment and passion throughout, members of the Steering Committee, members of the UN Country Team in Malaysia and other UN staff who worked on this Report as well as others who contributed to it, including civil society organizations.

I hope this Report will provide a source of inspiration and practical guidance for Malaysia to meet its remaining developmental challenges and attain the MDGs by 2015 as well as Vision 2020.

Kamal Malhotra  
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The team was guided by a Steering Committee, chaired by Dato' Mat Noor Nawawi and comprising representatives from the various sections in the EPU; Department of Statistics; Ministry of Health; Ministry of Women, Family and Community Development; Ministry of Human Resources; Ministry of Education; Ministry of Natural Resources and Environment; Ministry of Energy, Green Technology and Water; Ministry of Housing and Local Government; Ministry of Agriculture and Agro-based Industry; Ministry of Youth and Sports;

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# Abbreviations

ADB	Asian Development Bank
APEC	Asia–Pacific Economic Conference
ART	HIV antiretroviral therapy
ASEAN	Association of Southeast Asian Nations
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEMD	Confidential Enquiry into Maternal Deaths
CFCs	Chlorofluorocarbons
CO <sub>2</sub>	Carbon dioxide
DOTS	Directly observed treatment, short-course
EPI	Environmental Performance Index
EPU	Economic Planning Unit
EPRD	Educational Policy Planning and Research Division
FAO	Food and Agriculture Organization of the United Nations
FTA	Free trade agreement
GDP	Gross domestic product
HBFCs	Hydrobromofluorocarbons
HCFCs	Hydrochlorofluorocarbons
HDI	Human Development Index
IBBS	Integrated Bio-Behavioural Surveillance
ICT	Information and communications technology
IDB	Islamic Development Bank
IMF	International Monetary Fund
IPH	Institute for Public Health Malaysia
IUCN	International Union for Conservation of Nature
JICA	Japanese International Cooperation Agency
MAC	Malaysia Aids Council
MARP	Most-at-risk population
MCMC	Malaysian Communication and Multimedia Conference
MDG	Millennium Development Goal
MMR	Maternal mortality ratio
MOE	Ministry of Education
MOH	Ministry of Health
MTCP	Malaysian Technical Cooperation Programme
MWFCD	Ministry of Women, Family and Community Development
NGO	Non-governmental organization
NKRA	National Key Result Areas
ODA	Official development assistance
ODP	Ozone-depleting potential
OECD	Organisation for Economic Cooperation and Development
PMR	Lower Secondary Assessment
PPP	Purchasing power parity
RM	Malaysian Ringgit

SSC	South–South Cooperation
TCDC	Technical Cooperation among Developing Countries
TIMSS	Trends in International Mathematics and Science Study
UN	United Nations
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNTG	United Nations Theme Group on HIV
UPSR	Primary School Achievement Test
VCT	Voluntary counselling and testing
WEF	World Economic Forum
WHO	World Health Organization
WWF	World Wide Fund for Nature

# Overview

In 2005, the United Nations Country Team, in collaboration with the Economic Planning Unit in the Prime Minister's Department, undertook a review of Malaysia and the Millennium Development Goals (MDGs), which traced in detail the country's achievements and challenges for each MDG. Taking a long perspective and reviewing Malaysia's record since 1970, that report concluded that, at the national level, Malaysia was a model in achieving the MDGs ahead of the target date and in showing exemplary progress on those targets, which it had yet to achieve. It highlighted policy initiatives and programmes that had contributed to Malaysia's achievements and outlined some challenges going forward, especially in areas that were lagging, such as the share of women in managerial positions and in political representation.

In the context of that overall achievement, this 2010 review aims to dig deeper into the specific target areas where the MDG targets have been a challenge to realize, including subnational performance where feasible. It thus tries to shine light on areas and subnational populations that may have been left behind or left out but are not captured in national or state indicators – that is, on gaps and disparities. This approach is in keeping with the spirit and intent of the MDGs to promote equitable and inclusive development and to localize the goals, making them relevant to domestic conditions and aspirations.

In view of Malaysia's ambitions to become a high-income developed country, it is hoped that such an exercise will help further focus government policy attention and action. The gaps and disparities identified were taken into consideration during the preparation of strategies and programmes for the Tenth Malaysia Plan.

## Malaysia: Background and context

Malaysia is an upper-middle-income South-East Asian country, comprising 11 states in Peninsular Malaysia and Sabah and Sarawak. It has a population of 27.6 million (2010) and a total land area of just under 330,803 square kilometres. Peninsular Malaysia accounts for almost 79.9 per cent of the population, Sabah 1.3 per cent and Sarawak 8.8 per cent.

Malaysia is blessed with a range of natural resources, such as timber, petroleum and natural gas, which have contributed to the country's development. At independence in 1957, the country relied heavily on tin and rubber and, to less extent, timber, though by the late 1980s manufacturing exports had increased significantly and by 1991 had become the single largest sector for employment. Since the beginning of 2000, however, employment in this sector started to decline as services employment grew.

Malaysia is a country of diversity given its multi-ethnic, multi-cultural and multi-linguistic population. In 2009, the population comprised:

- Malays, accounting for about 49 per cent of the population.
- Chinese, 23 per cent.
- Indians, 7 per cent.
- Other Bumiputera, 11 per cent.
- Others, including non-citizens, 10 per cent.

More than two thirds of the population lives in urban conurbations, with urbanization by state ranging from 35 per cent to 90 per cent. It also varies by ethnic group. Except for Other Bumiputera, a majority of all other ethnic groups are now in urban areas.

In 2010, Malaysia's gross national income per capita was US\$8,194, or about US\$16,201 in purchasing power parity (PPP). Per capita, the economy achieved average growth of 8.0 per cent a year during 1970–2010.

Figure 1 shows Malaysia's position relative to selected Asian countries over nearly four decades. In 1970, its per capita GDP in current PPP US dollars was about the same

as the Republic of Korea's and a third of Singapore's.

The figure shows that:

- Malaysia has had sustained growth over a generation, generally keeping up with other Asian countries.
- Malaysia has not recovered as fully from the 1997–1998 Asian financial crisis as have the Republic of Korea and Singapore, resulting in a significantly widened gap with the two countries.
- Malaysia is at half the Republic of Korea's per capita GDP in PPP terms, and less than one third of Singapore's. The gaps are wider in current US dollars.

Malaysia has experienced a major shift in economic activity from agriculture into industry and services. In 2010:

- By sector, for total value added, services accounted for 57.4 per cent of GDP, manufacturing 27.7 per cent and agriculture only 7.3 per cent (down from 26.1 per cent in 1970).
- For employment, all other services accounted for 37 per cent, industry 29 per cent, government services (including education and health), 20 per cent and agriculture only 12 per cent (down from 50 per cent in 1970).

This transformation has resulted in an economy increasingly open to trade, with total

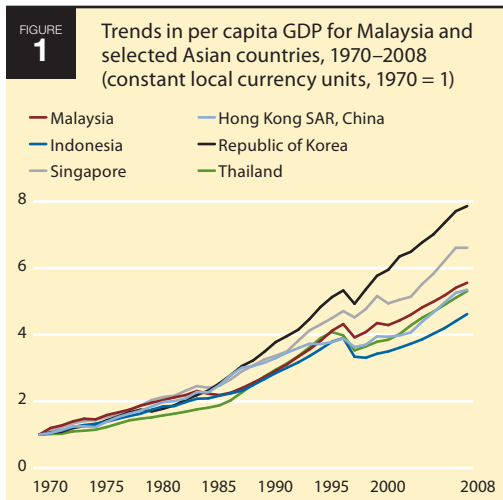
trade now standing at over 200 per cent of GDP. Manufacturing contributes two thirds of total exports, mostly from the electrical and electronics industry.

The Human Development Index (HDI) of the United Nations Development Programme provides another angle on Malaysia's development. The country falls within the "high human development" band. Figure 2 charts the performance of selected neighbours on the HDI relative to Malaysia over nearly three decades.

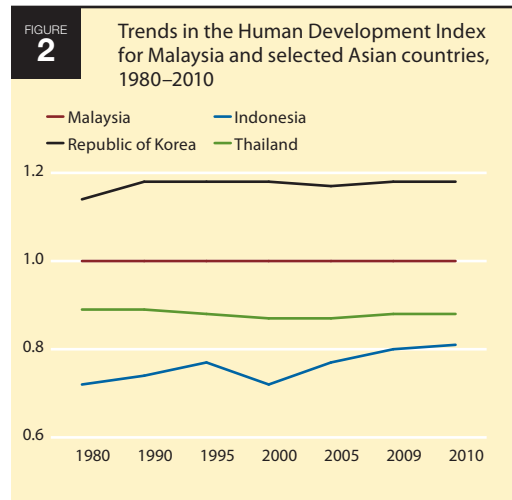
In 2007, Malaysia's performance on the HDI narrowed relative to Indonesia while Korea displayed a better performance. While, Indonesia's position is behind Malaysia's, there was significant improvement in its performance over the period.

Malaysia started with some clear advantages, as seen in the proportion of the population that had never attended school in 2000. Figure 3, based on the 2000 Census, plots this proportion by age group, as a proxy for the time period.

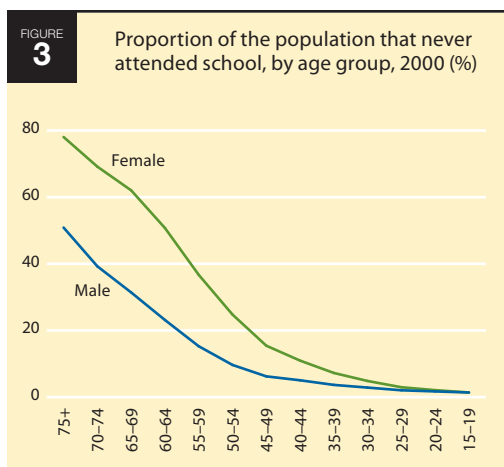
At independence – broadly corresponding to when the 55–59 age group started primary schooling – the proportion attending at least some primary school was a high 85 per cent for men and 65 per cent for women. Since then, women have caught up with men.



Source: UN Statistics Division, Department of Economic and Social Affairs.



Source: United Nations Development Programme, *Human Development Report 2010*.



Source: Malaysia, Department of Statistics, Population and Housing Census 2000.

Building on this, by 2009, over two thirds of households were headed by persons who had at least a secondary education. Of household heads that year, 20 per cent had at least a post-secondary qualification.

## Recent developments

Malaysia has achieved or is on track to attaining the MDGs at aggregate level by 2015 (Table 1). As part of its strategy to realizing and exceeding the MDGs, the Government is committed to the MDG-Plus agenda through its recently announced Tenth Malaysia Plan (2011–2015), with 30 per cent of the five-year development expenditures allocated to the social sector.<sup>1</sup> Emphasis will be on providing focused support towards encouraging greater participation in the economy of the specific groups most in need, especially among the bottom 40 per cent of households. Besides that, access to basic infrastructure and services – such as treated water supply, road infrastructure, education and health-care services – will be expanded.

Malaysia has also committed itself to the Government Transformation Programme, a

roadmap with detailed objectives, outcomes and an initial set of actions in six areas identified as National Key Result Areas (NKRAs) to support the New Economic Model and Tenth Malaysia Plan. The Government Transformation Programme is focus on delivering services through 1Malaysia principles or concept “People First, Performance Now”. These are:

- Reducing crime.
- Fighting corruption.
- Improving student outcomes.
- Raising living standards of low-income households.
- Improving rural basic infrastructure.
- Improving urban public transport.

The immediate objectives of this programme are to establish a new engine for change and to provide fundamental change in socio-economic performance with effective and efficient delivery of public goods. That will include setting and achieving targets within the NKRAs, so as to address the priorities of the people, significantly improving the important aspects of daily life, with the economy emerging with more high-value-added sectors.

The last four of these NKRAs target the needs of lower income and disadvantaged groups. Success in these NKRAs will further promote the MDGs and help reduce current disparities. In addition, the Government intends to push through measures to enhance the productivity of low-income households, in order to improve their immediate welfare and to build and ensure their income-earning potential.

The initial progress on raising living standards of low-income households is already visible. Through greater interagency coordination, the process of approving applications to be listed in the low-income households database – e-Kasih – now takes seven days, rather than two months as previously. The Government is also considering the feasibility of setting a minimum wage to enable all Malaysians to earn at least the poverty line income. But any action on this would be implemented gradually, so as not to adversely affect employers.

1. Under MDG-Plus, the MDG targets will be transformed into a floor (a minimum) instead of a ceiling. Efforts will include concrete activities to realize appropriately localized and adapted targets for narrowing development gaps.

## In summary

Innovative policies and strategies have ensured Malaysia's success so far in its MDG achievements. However, the remaining challenges require a different set of approaches, such as targeted policies to alleviate poverty at subnational levels.

The next five years are crucial for Malaysia to chart the path towards achieving the few targets it has not met, while maintaining its achievements. This period coincides with the Tenth Malaysia Plan, which aspires

to make Malaysia a high-income nation, according to the principles of inclusiveness and sustainability.

The Government of Malaysia is committed to analysing and reviewing the challenges in the country and design the appropriate policy options – where relevant and possible – to achieve the MDG-Plus agenda. The way forward in addressing the challenges ahead will take into account the needs of the nation through an inclusive and participatory approach.

TABLE  
1

Malaysia's progress towards the Millennium Development Goals

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Goal 1: Eradicate extreme poverty and hunger</b>				
<b>Target 1A:</b> Halve, between 1990 and 2015, the proportion of people whose income is less than US\$1 a day	<b>1.1</b> Proportion of population below US\$1 (PPP) per day (poverty rate)	17%	4%	All 16 states have achieved this, except Sabah. Sabah's poverty rate, 30.4% in 1990, is down to 19.7% in 2009.
	<b>1.2</b> Poverty gap ratio	3.75%	0.80%	
	National indicator: The proportion of households living below the food poverty line income	3.9%	0.7%	
	The proportion of households living below the national poverty line income	16.5%	3.8%	
	<b>1.3</b> Share of poorest quintile in household income	5.0%	5.1%	
<b>Target 1B:</b> Achieve full and productive employment and decent work for all, including women and young people	<b>1.4</b> Growth rate of GDP per person employed	10%	14%	
	<b>1.5</b> Employment-to-population ratio	61%	60%	
	<b>1.6</b> Proportion of employed people living below US\$1 (PPP) per day	<1	<0.5 (2007)	
	<b>1.7</b> Proportion of own-account and contributing family workers in total employment	25%	22% (2008)	
<b>Target 1C:</b> Halve, between 1990 and 2015, the proportion of people who suffer from hunger	<b>1.8</b> Prevalence of underweight children under five years of age (under-nutrition)	Moderate: 19.5% (1995) Severe: 0.6% (1995)	Moderate: 5.8% (2008) Moderate: 0.5% (2008)	
	<b>1.9</b> Proportion of households below minimum level of equivalent to food poverty line income	3.9%	0.7%	

TABLE  
1

## Malaysia's progress towards the Millennium Development Goals (continued)

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Goal 2: Achieve universal primary education</b>				
<b>Target 2A:</b> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	<b>2.1</b> Net enrolment ratio in primary education	96%	98%	
	<b>2.2</b> Proportion of pupils starting grade 1 who reach last grade of primary	98.1%	99.0%	
	<b>2.3</b> Literacy rate of 15–24-year-olds, women and men	95.3% (women) 95.9% (men)	97.3% (women) 97.2% (men)	
<b>Goal 3: Promote gender equality and empower women</b>				
<b>Target 3A:</b> Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	<b>3.1</b> Ratios of girls to boys in primary, secondary and tertiary education	Primary 1:1 Secondary 1.05:1 University 1.08:1	Primary 1:1 Secondary 1:1 University 1.6:1	
	<b>3.2</b> Share of women in wage employment in the non-agricultural sector	31.5%	37.8% (2008)	
	<b>3.3</b> Proportion of seats held by women in national parliament	5.3%	10.8%	
<b>Goal 4: Reduce child mortality</b>				
<b>Target 4A:</b> Reduce by two thirds, between 1990 and 2015, the under-five mortality rate	<b>4.1</b> Under-five mortality rate (per 1,000 live births)	16.8	7.9 (2007)	
	<b>4.2</b> Infant mortality rate (per 1,000 live births)	13.1	6.2 (2007)	
	<b>4.3</b> Proportion of 1 year-old children immunized against measles	70%	94.3% (2008)	
<b>Goal 5: Improve maternal health</b>				
<b>Target 5A:</b> Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	<b>5.1</b> Maternal mortality ratio (per 100,000 births)	44.0 (1991)	28.9 (2008)	Target: 11 (per 100,000) in 2015
	<b>5.2</b> Proportion of births attended by skilled health personnel	96.6%	98.6% (2008)	Sabah has the lowest scores ranging from 74% to 89% in 1990–2005 but more than 90% since 2006.
<b>Target 5B:</b> Achieve, by 2015, universal access to reproductive health	<b>5.3</b> Contraceptive prevalence rate	52.0% (1984)	51.9% (2004)	
	<b>5.4</b> Adolescent birth rate (per 1,000 women)	28 births (1991)	13 births (2007)	The mean age at marriage for Malaysian women increased to 25.1 years in 2000
	<b>5.5</b> Antenatal care coverage (at least one visit and at least four visits)	78.0%	96.7% (2007)	
	<b>5.6</b> Unmet need for family planning	Not available	24.7% (2004) – Peninsular Malaysia	

(continued)

TABLE  
1

## Malaysia's progress towards the Millennium Development Goals (continued)

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b>				
<b>Target 6A:</b> Have halted by 2015 and begun to reverse the spread of HIV/AIDS	<b>6.1</b> Notification rates: the number of cases detected (per 100,000 population)	28.5 cases (2002)	10.8 cases	Alternative estimates of incidence using modelling methods are currently inconclusive, due to various limitations, to indicate trend.  Currently, data on population-level prevalence and behaviour are only available for 2009, restricted to the Klang Valley area.
	<b>6.2</b> Case detection: percentage of cases detected out of total screened	0.82% (2002)	0.25%	
	<b>6.3</b> Reported AIDS-related deaths	1,374 (2007)	805	There is a shift to an increase in proportion of cases attributed to sexual transmission.
<b>Target 6B:</b> Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.  (Currently not yet achieved; possible to achieve by 2015 but requires increased financial commitment and a revision of targets)	<b>6.4</b> Number of people living with HIV who have received antiretroviral treatment	3,880 (2005)	9,962	Measurement of treatment coverage is dependent on estimates of people living with HIV in need of treatment. Previous estimates puts the coverage rate at 73% (coverage of people living with HIV with CD4 counts of < 200 cells/mm <sup>3</sup> . The accuracy of the estimates is currently under review.  WHO issued a revision of treatment guidelines at the end of 2009, in which people living with HIV are eligible for treatment earlier, at CD4 counts of < 350 cells/mm <sup>3</sup> . This will increase treatment needs, thus reducing coverage rates.
<b>Target 6C:</b> Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases  (Have achieved target of halting and reversing the incidence of malaria)  (Have not achieved target of halting and reversing the incidence of tuberculosis. Unlikely to be achieved by 2015)	<b>6.5</b> Incidence of malaria	50,000 cases	7,000 cases	Currently making efforts and progressing towards an MDG-Plus goal of complete elimination of malaria by 2020.  About 82% of cases were locally acquired, and 12% were imported.
	<b>6.6</b> Malaria deaths rates are very low, at 0.09 per 100,000. However, case fatality rates (number of deaths per total cases) have been on an increase, albeit at low rates	0.05% (1995)	0.37%	Malaria Elimination Programme was introduced at most endemic area.
	<b>6.7</b> Number of deaths has increased	571 (1995)	1,582	
	<b>6.8</b> Tuberculosis case detection rate	70.1% (2000)	75.3% (2008)	
	<b>6.9</b> Tuberculosis cure rate under directly observed treatment, short course.	89.7% (2000)	77.6% (2008)	The decrease in cure rate is partially due to a higher proportion of patients lost to follow-up and weaknesses in data management.



TABLE  
1

## Malaysia's progress towards the Millennium Development Goals (continued)

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Goal 7: Ensure environmental sustainability</b>				
<b>Target 7A:</b> Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources				
<b>Target 7B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	<b>7.1</b> Proportion of land area covered by forest	65.8% (2000)	62.4% (2010)	Malaysia is committed in ensuring that at least 50% of the country's land area remains as forest, as pledged in the Rio Summit in 1992.
	<b>7.2</b> CO <sub>2</sub> emissions, total, per capita and per US\$1 GDP (PPP)	3.2 tonnes of CO <sub>2</sub> /capita (1994)	7.2 tonnes of CO <sub>2</sub> /capita (2006)	The greenhouse gas inventory under the Second National Communication has been completed. Although a developing country, Malaysia has pledged to adopt an indicator of a reduction of up to 40% of emissions intensity of GDP by 2020 relative to 2005 levels, on condition of financial and technology transfer from Annex 1 parties.
	<b>7.3</b> Consumption of ozone-depleting substances	CFCs: 3,383.4 ODP tonnes Halons: 809.5 ODP tonnes	CFCs: 173.7 ODP tonnes (2008) Halons: 0 ODP tonnes (2008)	Specific pre-2010 targets for ozone-depleting substances under the Montreal Protocol have been achieved. Malaysia is on track to comply with the post-2010 targets of the Montreal Protocol.
	<b>7.4</b> Proportion of fish stocks within safe biological limits	0.95 million tonnes	1.4 million tonnes (2008)	Fish landings have increased due to government initiatives include putting a moratorium on the issuance of new licences for fishing within inshore waters, zoning system, gazettement marine protected areas, encouraging deep sea fisheries exploitation, and effectively enforcing legal instruments.
	<b>7.5</b> Proportion of total water resources used	Domestic consumption 0.191 million litres per day (MLD) per 1,000 population Non-domestic consumption 0.091 MLD per 1000 population (2005)	Domestic consumption 0.197 MLD per 1,000 population (2008) Non-domestic consumption 0.103 MLD per 1,000 population (2008)	Water consumption in agriculture has declined; domestic and non-domestic water consumption has increased.

(continued)

TABLE  
1

Malaysia's progress towards the Millennium Development Goals (continued)

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Target 7B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss  <i>(continued)</i>	<b>7.6</b> Proportion of terrestrial and marine areas protected	Not available	10.4% (2010)	This size of terrestrial protected areas exceeds the global 2010 biodiversity target of 10%. More islands have also been gazetted as marine protected areas. In 2007, the Marine Park Section has been expanded to become the Department of Marine Park Malaysia.
	<b>7.7</b> Proportion of species threatened with extinction	Not available	Not available	The Wildlife Conservation Bill was passed in Parliament on 2 August 2010 to repeal the existing Protection of Wildlife Act 1972.
<b>Target 7C:</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	<b>7.8</b> Proportion of population using an improved drinking water source	90.5% (2007)	91.6% (2009)	Efforts are being made to increase water supply coverage to 97% of the population by 2015.
	<b>7.9</b> Proportion of population using an improved sanitation facility	Not available	97% (2007)	The proportion using an improved sanitation facility is 99% in urban areas and 96% in rural.  Efforts are being made towards providing full sanitation coverage.
<b>Target 7D:</b> By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	<b>7.10</b> Proportion of urban population living in slums (squatters)	108,704 households (2004)	99,022 households (2009)	The People's Housing Program, introduced in 1999, will continue to be implemented to reduce the number of households living in squatter settlements.
<b>Goal 8: Develop a global partnership for development</b>				
<b>Target 8A:</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	<b>8.1</b> ODA received by Malaysia	Not available	0.0004% of donors' GNI	
	<b>8.2</b> Malaysia's contribution through MTCP and Malaysia's Involvement in South-South Cooperation			
	Total allocation spent	RM9 million	RM563 million	
	Number of MTCP member countries	52 countries	140 countries	
	Number of participants	226	28,153	
	Number of advisory services	0	36	
	Number of special projects	0	28	
	Number of third country training programme courses	4 courses	88 courses	
	Study visits and practical attachment by sector:			
	Agriculture	2	16	
	Education	0	3	
	Dispatch of experts and advisors by sector:			
	Agriculture	0	13	
Medical	0	3		

TABLE  
1

## Malaysia's progress towards the Millennium Development Goals (continued)

Goals and targets	Indicators for monitoring progress	Malaysia's progress (aggregate)		
		1990	2009	Notes
<b>Target 8B:</b> Address the special needs of the least developed countries.	<b>8.3</b> Preferential trading arrangement			
	FTA with developing countries	None	Pakistan	
	Trade agreements signed	0	53	
	Investment guarantee agreements	6	45	
	Joint trade committees	0	113	
<b>Target 8C:</b> Address the special needs of landlocked developing countries and small island developing states	Reported under Indicator 8.2.			
	Number of advisory services	Not available	7	
	Number of special projects	Not available	6	
<b>Target 8D:</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Third-country training programme (number of courses)	4 courses	88 courses	Courses on cost-sharing basis with donor countries and multilateral organizations are becoming the main form of future cooperation for Malaysia.
	<b>8.4</b> Debt sustainability: sources of loans from organization (IDB, ADB, IMF, World Bank)	IDB, ADB, World Bank, JICA	IDB, JICA	
<b>Target 8E:</b> In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	This target is deliberated under Target 1B of Goal 1 on achieving full and productive employment and decent work for all, including women and young people.			
<b>Target 8F:</b> In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	<b>8.5</b> Improving access to essential drugs through primary/secondary health-care facilities			
	Number of public hospitals	102	136	
	Number of health clinics	582	808	
	Number of mobile clinics	204	196	
	Proportion of doctors per 1,000 population	Not available	1:1,000	
	<b>8.6</b> Bilateral health agreements	0	4	
<b>Target 8G:</b> In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	<b>8.7</b> Broadband/Internet and telephony penetration			
	Broadband/Internet penetration per 100 households	Not available	53.5	
	Cellular penetration per 100 inhabitants	Not available	110.6	
	Telephones lines per 100 households	Not available	43.7	

Note: CO<sub>2</sub> = carbon dioxide; CFCs = chlorofluorocarbons; ODP = ozone-depleting potential; ODA = official development assistance; MTCP = Malaysian Technical Cooperation Programme; FTA = free trade agreement; IDB = Islamic Development Bank; ADB = Asian Development Bank; IMF = International Monetary Fund; JICA = Japanese International Cooperation Agency.

# MDG 1

## Eradicate extreme poverty and hunger



### The first Millennium Development Goal (MDG 1) has three targets:

- Halve, between 1990 and 2015, the proportion of people whose income is less than US\$1 a day.
- Achieve full and productive employment and decent work for all, including women and young people.
- Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

Malaysia has already surpassed the first target – the “supergoal” of the MDGs – both nationally and in rural and urban areas. It has also probably cut by half the proportion of under-five children with moderate under-nutrition, or is likely to do so by 2015.

As the second target tracks trends, it does not have an explicit target for 2015. But all three MDG targets represent three facets of a single focus: a decent livelihood for all. The animating vision is that of equity and inclusiveness – for all to share in the benefits of growth and development.

Progress towards MDG 1 is measured by nine indicators. Their definitions and any adjustments made to them are in the chapter annex. This chapter also uses other indicators, principally relating to equality, to identify key challenges.

Although indicator 1.1 is stated with reference to the World Bank’s “dollar-a-day” at purchasing power parity (PPP) measure, it is standard recommended practice to use national poverty lines where they exist. This practice was adopted in the 2005 MDG report for Malaysia.<sup>1</sup>

Malaysia developed its own poverty line in the 1970s when the Government adopted an

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1. UNCT/EPU (2005).

explicit poverty eradication stance in national policy. The Government based this poverty line on assessments of the minimum consumption requirements of an average-sized household for food, shelter, clothing and other non-food needs.

Adjustments were made to the poverty line in its earliest form, for differences in mean household size and cost of living among the three main regions of Malaysia: Peninsular Malaysia, and Sabah and Sarawak, on Borneo. No adjustments were made for rural or urban location. This resulted in three regional poverty lines (besides the national one). These poverty lines, with adjustments for inflation and changing mean household sizes, were in use from their adoption in 1976 to 2004.

Although the poverty line was defined by consumption, poverty status was determined with reference to gross household income<sup>2</sup> rather than expenditure. Thus households with incomes below the poverty line were defined as living in poverty, and those with incomes below half the poverty line as living in “hard-core” or extreme poverty.

In 2004, the Economic Planning Unit (EPU) of the Prime Minister’s Department and the United Nations Development Programme (UNDP) undertook a joint exercise to revise the poverty line. This led to a new poverty line, now defined for each household and averaged to each state and rural/urban location, taking into account relative costs of living, household composition and size.<sup>3</sup>

In 2009, the mean national poverty line translated to an unadjusted RM6.50 per capita a day (equivalent to US\$3.00 a day, PPP). Considerations have recently been given to addressing the issues of relative poverty, in line with Malaysia’s development model,

which emphasizes an inclusive development approach. The main target of this approach is the bottom 40 per cent of households, or bottom two quintiles, in the income distribution.

The Government Transformation Programme<sup>4</sup> indicates that “raising living standards of low-income households” is one of the six National Key Result Areas.<sup>5</sup> It aims to completely eradicate hard-core poverty, reduce the incidence of poverty and increase the income of low-income households through:

- Enhancing capacity and capability, by promoting productivity, education, training and entrepreneurship.
- Implementing fast, high-impact initiatives immediately and laying the groundwork for longer term actions.
- Strengthening delivery and interagency coordination of initiatives.

Some of the initiatives that this National Key Result Area identifies relate to job placement; microcredit; programmes to create jobs based on job-matching, training and provision of state funds; low-cost housing; and infrastructure facilities such as water, electricity, health and sanitation.

The rest of this chapter discusses the degree to which Malaysia has met the three MDG targets, and analyses the country’s challenges for this MDG.

## Halving the proportion of people on less than US\$1 a day

### National summary

#### *A major achievement*

By the national poverty line, Malaysia has achieved this MDG target among households (Figure 1.1).<sup>6</sup>

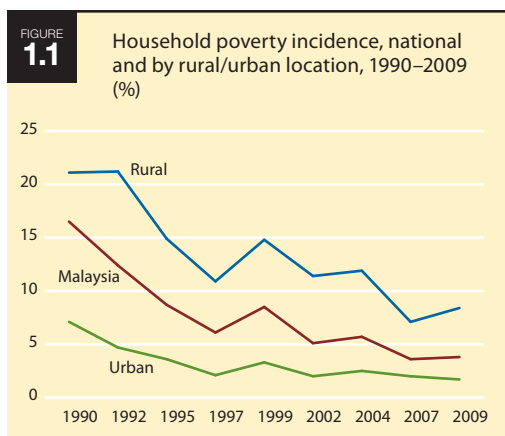
2. The standard income concept is used, including benefits in kind, production for own consumption, imputed rents, capital incomes and all transfer incomes.

3. This new poverty line defines extreme deprivation or hard-core poverty as households with incomes below their food poverty line or households unable to meet their minimum food needs.

4. <http://www.pemandu.gov.my>.

5. The other five are reducing crime, fighting corruption, improving student outcomes, improving rural basic infrastructure and improving urban public transport.

6. All references to 1990 in this section are to the Household Income Survey for 1989.

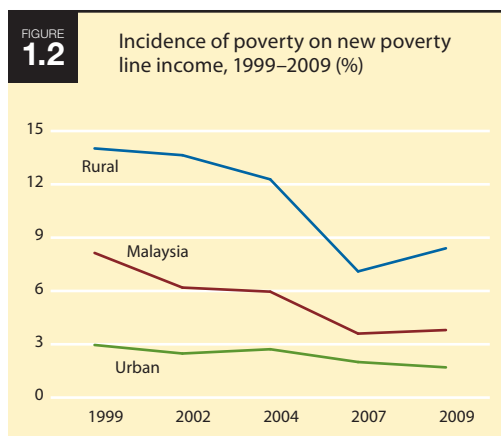


Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

This success story is the result of continuing growth and a whole range of dedicated poverty-eradication programmes, including income-generating initiatives; basic services such as universal education and health care; housing programmes for the poor; and programmes specifically targeting capacity building among communities, with an emphasis on attitudinal change and motivation. All these initiatives have enabled the Government to depend less on welfare programme hand-outs, which it now provides only to the most in need. The Government has also worked closely with civil society organizations in reaching out to poor communities through poverty eradication programmes.

In 2004, the national poverty line was revised significantly, becoming a variable poverty line defined for each household, depending on the household's size, composition and location.<sup>7</sup> As with the previous poverty line, it comprises a basket of minimum food needs – defined on an individual basis, depending on sex and age, and aggregated into a household – plus minimum non-food needs, determined by the expenditure of the households in the lowest quintile. This approach has enabled the Government to further refine and strengthen the targeting of poverty-eradication programmes.

7. UNDP/EPU (2008).



Source: UNDP/EPU, 2008, Malaysia: Measuring and Monitoring Poverty and Inequality, table 4.4; Malaysia, Department of Statistics, Household Income Survey, 2007 and 2009.

With the revised national poverty line and a 1999 base period, the national incidence of poverty fell by half by 2009 (Figure 1.2), declining with economic growth but rising during financial or economic crises.

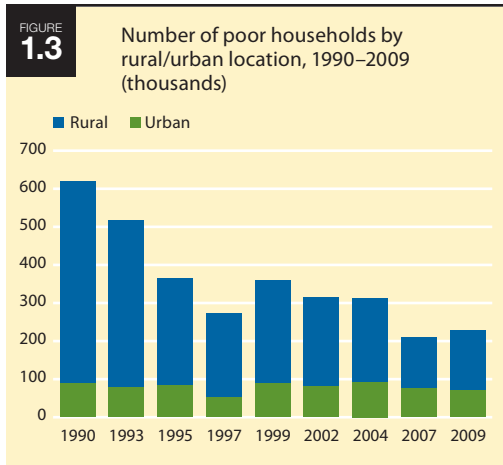
#### *How many are poor?*

The poverty rate of 3.8 per cent (of citizen households) in 2009 represents an estimated 228,000 households, an increase from 210,000 households in 2007, stemming from the global economic crisis. (This rate amounted to more than 1.5 million persons, or 6 per cent of the estimated citizen population.) Still, this figure is down sharply from both 1990 and 1999 (Figure 1.3).

#### *Intensity and depth of poverty*

The national poverty gap index, a measure of the intensity of poverty, went down considerably in 1999–2007, mainly because of the decline in the rural component, but showed a slight increase from 2007 to 2009 (Figure 1.4). The urban poverty gap index was little changed, hovering at around 0.5 per cent. In 1989, the equivalent rural and urban poverty gaps were 5.1 per cent and 1.0 per cent, respectively, with an average of 3.7 per cent.

The depth of poverty may be intuitively grasped as the income increment needed to bring those below the “hard-core” poverty line



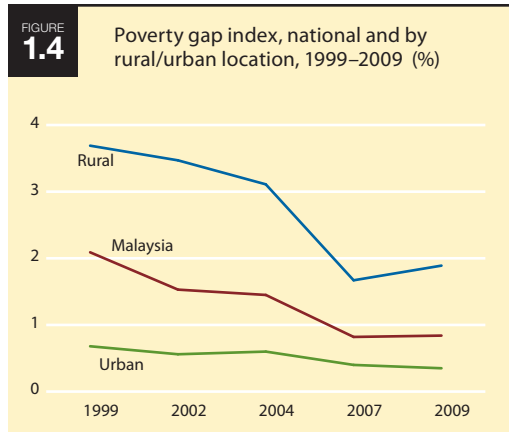
Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

– that is, the food poverty line – out of poverty. In 2007, a doubling of the gross monthly income of the hard-core poor would have lifted only half of them out of poverty. This ratio improved in 2009, despite the upticks in poverty incidence and the poverty gap: a doubling of incomes would have lifted almost 70 per cent of the hard-core poor out of poverty, suggesting that the depth of poverty had lessened (though this was in part due to more effective provision of income support).

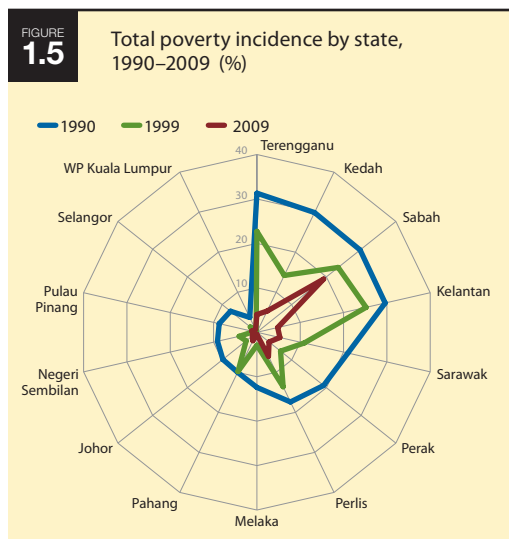
### Analysis by state and rural/urban location

All states apart from Sabah have experienced large declines in poverty rates and have achieved the MDG target of halving the 1990 incidence of poverty (Figure 1.5). The poverty rate for Sabah is the highest in the country at 19.7 per cent in 2009. The uptick in the incidence of poverty in Sabah from 1990 to 2009, as well as the high rural poverty rate, suggests that the state requires a greater poverty-reduction focus.

The fall in rural poverty across all states (again apart from Sabah) has also surpassed the MDG target (Figure 1.6). In Sabah, rural poverty declined from 35 per cent in 1990 to 26.3 per cent in 2007, an average decline of 1.6 per cent per year. To meet the target by 2015, it would have required an average annual decline of 2.8 per cent per year from 1990, or of almost 5 per cent per year from 2007.



Source: UNDP/EPU, 2008, Malaysia: Measuring and Monitoring Poverty and Inequality, table 4.4; Malaysia, Department of Statistics, Household Income Survey, 2009.

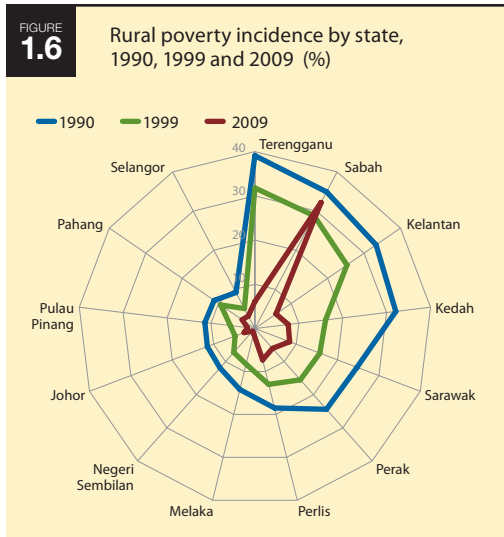


Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

Even so, several states saw their rural poverty rate increase from 2007 to 2009, including Johor, Kedah, Pahang, Perak, Sarawak and Selangor. The increase was due to the financial crisis, which raised prices of necessary items as well as commodity prices.

Among rural households, agriculture and fisheries had the highest incidence of poverty, at 14 per cent, and accounted for over 57 per cent of total poor rural households in 2009. This is a drop from the 25 per cent incidence in 1990, when agriculture accounted for over 60 per cent of total poor rural households.





Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

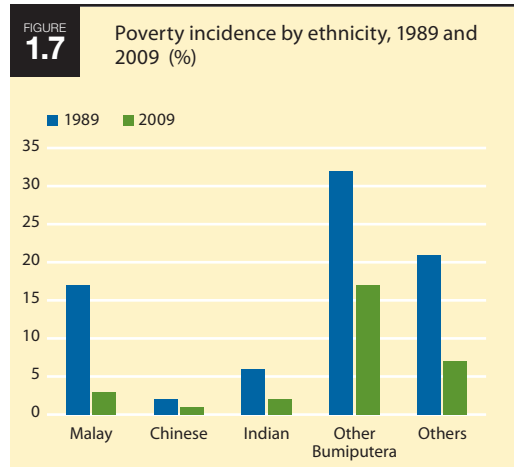
In the urban setting, the wholesale, retail, hotels and restaurants sector accounted for one fifth of poor households, and was the largest contributor in 2009. This sector was followed by households headed by persons who were homemakers or otherwise not in the labour force, accounting for 17 per cent of total poor urban households.

**Summary**

Malaysia has met Target 1A in both rural and urban areas, as well as nationally. Although a substantial rural–urban gap in poverty incidence remains, the gap narrowed significantly from 14 percentage points in 1990 to 6.7 percentage points in 2009.

The steep fall in rural poverty from 2004 to 2007 was largely due to rising prices of leading commodity exports, especially oil palm and rubber. But by 2009, commodity prices had fallen, and the impact of the fuel and food price shocks of 2007–2008 had worked their way through the economy, as reflected in the rise in rural poverty, which was, however, cushioned by targeted cash transfers.

Since 2000, the urban poverty rate has remained at around 2 per cent. Despite the narrowing gap in poverty incidence between rural and urban areas, the rural poor in 2009 still



Source: Malaysia, Department of Statistics, Household Income Survey, various years.

accounted for the majority of poor households (two thirds, down from 85 per cent in 1989) and poor persons (almost 70 per cent).

**Ethnicity<sup>8</sup>**

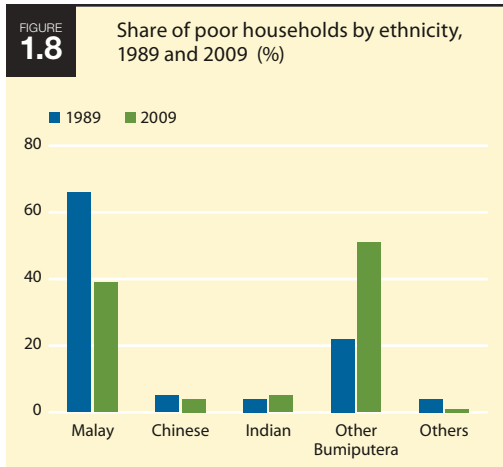
From 1989 to 2009, the incidence of poverty among all ethnic groups fell by at least half (Figure 1.7).

Corresponding to this is a change in relative contribution of ethnic groups to total poor households (Figure 1.8).

As Other Bumiputera live predominantly in East Malaysia where the geographical terrain poses severe limitations to building transport infrastructure and basic amenities, the relative disadvantage of this group stands out. In 2009, the contribution of Other Bumiputera to total poor households was well above their 9 per cent of total households. Conversely, Malays have advanced considerably, but

8. This is limited to citizen households only. Differences here from published statistics are due to an adjustment to the 1989 poverty line. To compensate for their shortcomings, the current analysis uses a simple per capita poverty line: that is, the poverty line divided by household size, and compares that with a simple per capita household income. This brings it more in line with the current poverty line. On this basis, the 1989 incidence of poverty was only 13.1 per cent instead of 17.1 per cent. Fitting the current poverty line back to 1989 results in a higher incidence of poverty.





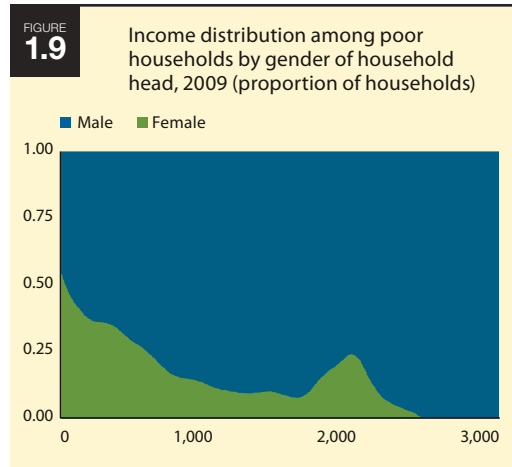
Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

because of their proportion of total households, they constitute a plurality of poor households.

The incidence of poverty among Other Bumiputera increased from 14 per cent in 2007 to 17 per cent in 2009, and their contribution to total poor households rose from 41 per cent to 51 per cent. Also in 2009, the intensity of poverty was most visible among Other Bumiputera. While the overall poverty gap index was less than 1 per cent, that of Other Bumiputera was over 4 per cent, compared with 1.5 per cent for Others, 0.5 per cent for Malay and Indian, and 0.1 per cent for Chinese.

### Vulnerability

Any poverty line has a measure of arbitrariness, especially for non-food needs and particularly if the line is intended to capture the degree of exclusion. Furthermore, numerous households fall within a certain margin above the poverty line. These are vulnerable households that may not be poor at the time of the survey but that may fall into poverty, usually due to economic shocks or illnesses. Once the notion of vulnerability is factored into the analysis, however, the poverty line is an effective and consistent yardstick for monitoring performance, including the income dimension of poverty.



Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2009.

Defining the vulnerable as households with incomes of up to 25 per cent above their poverty line results in a vulnerable proportion of 3.5 per cent of households, or 1.25 million persons in 2009.<sup>9</sup>

In further support of the concept of vulnerability rather than a simple poverty cut-off, remittances sustain many households above the poverty line. The impact differs significantly among states and among ethnicities, with Other Bumiputera the most vulnerable, followed by Chinese, Malay, Indian and Others.

### Gender

In many parts of the world, households headed by women are at elevated risk of poverty. The same holds true for Malaysia. Urban female-headed households in 2009 had a higher probability of being poor than urban male-headed households and than rural female-headed households. This represents a change from 1989 when rural, but not urban, female-headed households had a higher probability of being poor than male-headed households. Among the poor, female-headed households are at the very bottom of the income distribution (Figure 1.9).

9. The Economic Commission for Latin America and the Caribbean, for example, defines the vulnerable as those falling within 1.2–1.8 times the poverty line.

The crude poverty incidence for female-headed households was 4.1 per cent, compared with 3.7 per cent for male-headed households. But initiatives to address the poverty of female-headed households, such as microcredit, have had a mitigating impact, as have cash transfers.

Gender issues may translate into poverty and vulnerability through the labour force participation rate as well. The rate for Malaysian women has remained at around 45 per cent for the past 30 years. In 2007, 85 per cent of those with primary education or less outside the labour force were women, and they made up almost 30 per cent of women outside the labour force. Among wives aged 25–40 years, 83 per cent in poor households were outside the labour force compared with 52 per cent in non-poor households. Of wives in poor households outside the labour force, 60 per cent had primary education or less compared with 22 per cent in non-poor households.

While demand for workers in elementary occupations is high, it is probable that these women are outside the labour force, as their earnings would likely be less than the cost of childcare and home-related services. If such women had been able to take up paid employment (even in elementary occupations), the incidence of poverty would have fallen by nearly half to just over 2 per cent in 2007. In Sabah, which has nearly 60 per cent of such households, the impact would have been even greater, reducing poverty from 17.7 per cent to 9.8 per cent.

## Education

The incidence of poverty remained inversely related to educational attainment in 2009 (Table 1.1), as it was in 1989.

In 1989, households headed by persons with only primary education or less had a poverty incidence of 17.6 per cent and accounted for 95 per cent of total poor households, while those headed by persons with secondary education had a poverty incidence of 4.5 per cent.

TABLE  
1.1

Poverty by education of household head, 2009 (%)

Education of household head	Incidence of poverty	Proportion of poor households
Primary or less	7.7	65.7
Secondary	2.7	33.1
Post-secondary or tertiary	0.2	1.2

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2009.

The distribution of educational attainment varies by state, rural/urban location and ethnicity, and is a major contributor to variations in poverty incidence. It also varies by the gender of household head: in 2009, 44 per cent of female household heads had only primary education or less, compared with 30 per cent of male household heads.

## Child poverty

Households headed by persons over the age of 60 or 65 do not have a higher probability of being poor. Rather, it is households headed by those aged 35–44 that have a higher probability of being poor. At the individual level, however, children are the most at risk,<sup>10</sup> mainly because of the larger household size of poor households.

Child poverty is of particular concern because of its potential long-term effects on cognitive, physical and emotional development as well as on health. The proportion of children living in poverty, with the estimated absolute numbers, is shown in Table 1.2.

In tandem with the drop in the incidence of poverty, there was a huge fall in both the

10. The Child Act 2001 defines “child” as someone below 18 years of age. The Children and Young Persons Employment Act 1966 (amended in 1988), applying to Peninsular Malaysia, defines “child” as someone who has not completed the 14th year or such age as prescribed by the Yang di-Pertuan Agong, the country’s constitutional monarch. The Penal Code, Act 574, specifies the age of majority as 14 for boys and 16 for girls. For these reasons, the profile refers to under-15s. Extending this to under-18s does not change the proportions living in poverty in 2007, but it increases the estimated total number by about 10 per cent to 820,000.

TABLE  
1.2

Proportion of children in poverty, 1989 and 2007 (including non-citizens) (%)

Year	Children under 5	Children under 15	Overall poverty rate
1989	28.3 (676.7)	29.3 (1,966.4)	19.9
2007	8.1 (178.4)	9.4 (724.9)	4.0

Note: Data in parentheses are estimated absolute numbers of all children under 15, in thousands. 2007 figures are used as the most accurate recent data available. For technical reasons, the 1989 statistics are based on the new poverty line income, with adjustments.

Source: Derived from Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

incidence and number of children living in poverty from 1989 to 2007. Nevertheless, almost half the poor were children under the age of 15.

As with poverty generally, poverty among children shows a rural–urban disparity, and the decline has been more rapid in urban areas. In 2007, the proportion of children living in poverty in rural areas was 60.6 per cent, a fall of nearly 25 percentage points from 1989 (Table 1.3). With urbanization, the proportion of children under 15 living in rural poverty has declined, and in 2007, almost 40 per cent of children under 15 in poverty lived in urban areas. Consequently, the decline in absolute numbers has been greater in rural areas.

Among states, with the exception of Sabah, the fall in child poverty is equally impressive, though 5 of the 13 states still had child poverty rates of 10 per cent or more in 2007 (Figure 1.10). That year, almost half of all children living in poverty were in Sabah, up from 15 per cent in 1989. Moreover, while all other states experienced a huge decline in the absolute number of children living in poverty, Sabah saw an increase.

By ethnicity, the incidence of child poverty also plummeted, but at different rates (Table 1.4). As a result, Others (including non-citizens) and Other Bumiputera had the highest incidence in 2007. One third of Other Bumiputera under 15 lived in poverty and accounted for over 37 per cent of that age group living in poverty. Malays accounted for 41 per cent and Others 14 per cent.

TABLE  
1.3

Proportion of children under 15 in poverty by rural/urban location, 1989 and 2007 (%)

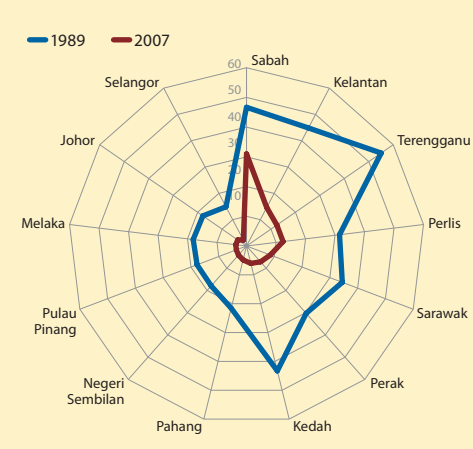
Year	Urban	Rural	Rural as % of rural and urban
1989	17.2 (326.5)	34.0 (1,639.9)	83.4
2007	5.9 (285.7)	15.1 (439.2)	60.6

Note: 2007 figures are used as the most accurate recent data available. Data in parentheses are estimated absolute numbers of all children under 15, in thousands. For technical reasons, the 1989 statistics are based on the new poverty line income, with adjustments.

Source: Derived from Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

FIGURE  
1.10

Children in poverty by state, 1989 and 2007 (%)



Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

TABLE  
1.4

Rates of children in poverty by ethnicity, 1989 and 2007 (%)

	1989	2007
Other Bumiputera	52.0	25.6
Others	50.7	33.3
Malay	33.1	6.8
Indian	23.5	6.5
Chinese	9.0	1.0

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 1989 and 2007.

### Child poverty and impact on school attendance

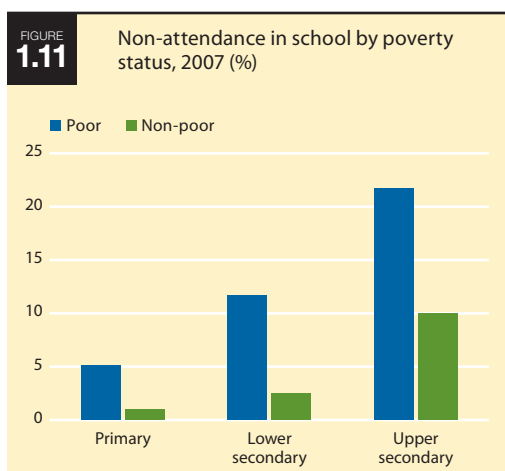
Children living in poverty are more likely either to not attend school or to drop out of school.

The proportion of children not in primary school is higher among the poor. The percentage increases in relation to the level of education (Figure 1.11).

Because there is a cash transfer programme for school attendance, further investigation is required to understand what prevents the 5 per cent of the primary school-age children of the poor from attending school. This situation should, however, be kept in perspective for three main reasons. First, the low proportion is testimony to the broad success of providing primary education to all. Second, the percentage not in school translates into estimated absolute numbers of 8,000 among children living in poverty and 20,000 among those not in poverty. Third, half the children of the poor not in primary school are in Sabah, suggesting that state-focused activities will significantly improve the overall figures.

At upper secondary school level, the disparity between the poor and non-poor in non-attendance also masks the fact that, in absolute numbers, the children of the non-poor not in school far outnumber those of the poor: in 2007 their estimated totals were 93,000 and 17,000.

Thus while concern for the high proportion of poor children not in school is valid, the challenge has to be addressed more broadly in



Note: Citizens only.

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2007.

terms of overall inequality. Three quarters of all children of upper secondary school age who are not in school come from households in the bottom 40 per cent of the income distribution, as do almost 90 per cent of all those of lower secondary school age not in school and two thirds of those of primary school age not in school.

This inequality is linked to very high youth unemployment and is a problem not just of poverty, but of other factors associated with physical accessibility to high-quality education and to opportunities for building skills at vocational and technical training centres.

### *Child poverty and basic amenities*

Children living in poverty experience multiple deprivations. They are much more likely to live farther away from a school and clinic, live with unimproved sanitation and water supply, have no access to uninterrupted electricity, live in poor housing, have no garbage collection and – almost universally – have no personal computer at home (Figure 1.12).

## Income inequality

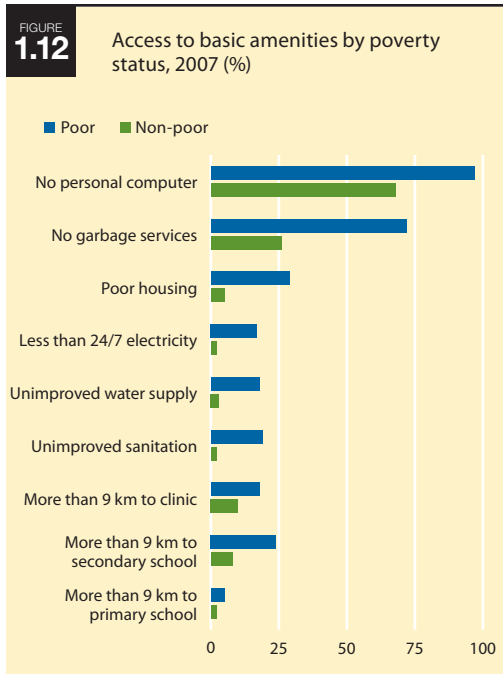
### *Persistent inequality in the bottom 40 per cent of households*

This is a simple measure of inequality focused on those at the bottom of the income distribution. The available published data are for the bottom 40 per cent, or the bottom two quintiles (Table 1.5).

The bottom quintile's share is of course not half the share of the bottom two quintiles. In 2009, it had an estimated 5.1 per cent share of total household income; in 1989, 5.0 per cent.

Using the Gini coefficient as a measure of inequality, the fluctuations in 1990–2009 were marginally significant.<sup>11</sup> Nevertheless, for Peninsular Malaysia only, there was an improvement from 1970, when Anand reported a Gini coefficient of 0.498; in 2009, the coefficient for the Peninsula, measured on the same per capita

11. UNDP/EPU (2008); Ragayah (2009).



Note: Poor housing = house in poor or dilapidated condition; unimproved water supply = rain/river water or some other source (well water and gravity-fed piped water is considered an improved water source); unimproved sanitation = anything other than flush or pour flush; more than 9 km to clinic refers to a public facility.

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2007.

household income basis, was 0.465.<sup>12</sup> For the country as a whole, it was 0.471 in 2007 and 0.473 in 2009, compared with 0.482 in 1989. Seen in the context of other indices, there has been a small decline in inequality, corresponding to the growth of a middle class.<sup>13</sup>

12. Anand (1983), p. 81.

13. With Birdsall's (2010) criteria for a middle class and simple per capita household income, Malaysia's middle class constitutes 46 per cent of the population.

In other words, while the incidence of poverty as measured by the poverty line income has been significantly reduced, inequality as seen from the bottom has been resistant. In addition, the *absolute* income gap between the bottom and top household quintiles has widened from RM4,150 to RM8,000, in 2009 prices, from 1989 to 2009. This is an unintended outcome of the focus on inter-group, in particular inter-ethnic, inequalities, rather than inequality in itself.

A focus on inequality in itself is needed and is recognized in the current re-orientation of economic growth and development. But given its adoption as the measure of relative inequality, it is useful to briefly profile this bottom 40 per cent.

On an adjusted per capita household income basis at 2009 prices, the bottom 40 per cent of households had a real mean per capita income of RM287 in 1989 and RM512 in 2009, translating into mean household incomes of RM806 and RM1,440, respectively. That is, the real mean household income of the bottom two quintiles almost doubled over the period, in line with overall mean household income. In both years, mean household income of the bottom 40 per cent amounted to 56 per cent of overall mean household income.

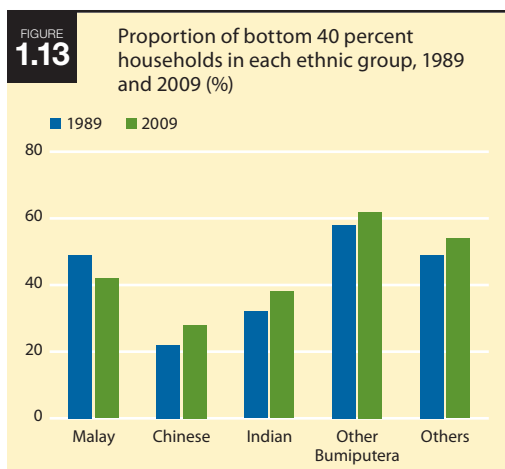
In ethnic terms, the bottom 40 per cent of households in 2009 show a large over-representation of Other Bumiputera and Others, a small over-representation of Malays, a large under-representation of Chinese and approximate proportionality of Indians. Relative to 1989, this is an improvement for Malays and a deterioration for Other Bumiputera (Figure 1.13).

**TABLE 1.5** Share of bottom 40 per cent of households in total household income, 1990–2009 (%)

	1990	1995	1997	1999	2002	2004	2007	2009
Malaysia	14.3	13.7	13.2	14.0	13.5	13.5	14.8	14.3
Rural	15.8	15.5	15.2	15.6	14.7	16.6	17.3	16.3
Urban	14.3	14.8	14.2	14.8	16.1	14.6	15.1	15.3

Note: Citizen households only.

Source: Ragayah hj Mat Zin, 2009, *Pertumbuhan dengan Kesetaraan: Realiti dan Harapan*. Professorial inaugural lecture, 23 July, Universiti Kebangsaan Malaysia (UKM); Malaysia, Department of Statistics, Household Income Survey, 2009.



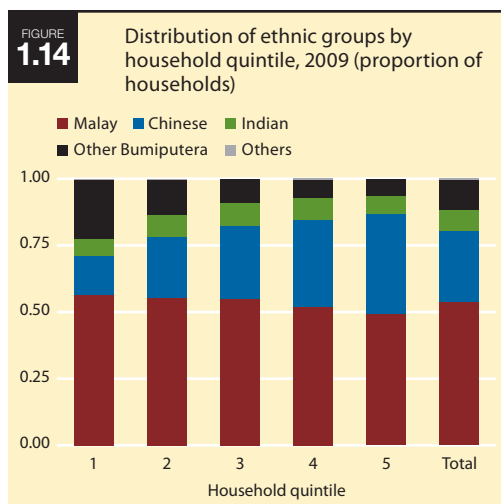
Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 1989 and 2009.

### *Much reduced inter-ethnic inequality*

The usual measure of inter-ethnic inequality in Malaysia is the mean household income-disparity ratio. By that ratio, inter-ethnic disparities – specifically between the two dominant ethnic groups, Chinese and Malay – have narrowed considerably from more than 2 in 1970 to 1.4 in 2009 (Figure 1.14). This ratio has the shortcoming, however, of ignoring the distribution within groups.

To a large degree, the change in incidence by ethnic group is a reflection of the dramatic change in the rural–urban distribution of households among the bottom 40 per cent: in 1989, rural households made up 83 per cent of the bottom two quintiles' households, but by 2009, they accounted for only 49 per cent.

From 1989 to 2009, the proportion of households in the bottom 40 per cent declined in most states. Among the states that saw an increase by 2009 were Sabah and Selangor, which registered an increase from 6 per cent to 11 per cent and from 8 per cent to 10 per cent, respectively. In the ethnic groups in the bottom 40 per cent, Other Bumiputera make up 74 per cent, Chinese 19 per cent, Indian 7 per cent and Others 1 per cent. By industry, the proportion of households involved in agriculture (including fisheries) in the bottom 40 per cent declined during 1989–2009 from 54 per cent to 29 per cent.



Note: The income basis is gross monthly household income.

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2009.

Regrouping the non-agricultural sector of the bottom 40 per cent households into four broad categories – mining and quarrying, construction, manufacturing and services – households in construction had the highest incidence of poverty at 9 per cent in 2009, followed by services at 6.5 per cent.

By occupation, while there is a parallel shift out of agriculture into non-agricultural activity in tandem with the level of education, the incidence of poverty is highest among households headed by those in the elementary occupations at 12 per cent. Among elementary occupations, households headed by construction workers have the highest incidence of poverty at 10 per cent.

This consideration of the bottom 40 per cent of households lends support to the view above that a shift towards a focus on overall inequality and relative poverty will also be a shift towards greater inclusiveness, addressing ethnic concerns at the same time.

### **Achieving full and productive employment and decent work**

Target 1B was added to the MDGs following the 2005 World Social Summit. It has four principal indicators:

- Growth rate of gross domestic product (GDP) per person employed.
  - Employment-to-population ratio.
  - Proportion of employed people living below US\$1.25 a day (PPP).
  - Proportion of own-account and contributing (that is, unpaid) family workers in total employment.
- It does not have a specific target for 2015.

### Growth rate of GDP per person employed

This indicator aims to capture productive employment (Figure 1.15).

What stands out is the impact of the Asian financial crisis, indeed the lead-up to it, and the less than full subsequent recovery. Real GDP growth per person employed averaged 3.2 per cent a year after 2000.

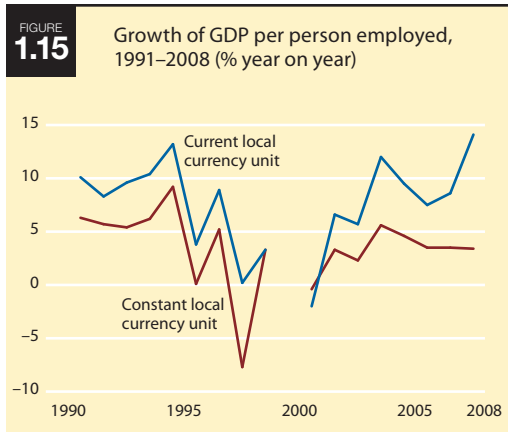
### Employment-to-population ratio

The employed as a proportion of the population has been stable in recent years, with a slight downward trend (Figure 1.16). This stems from better school retention of the 15–19 age group and higher transition to post-secondary and tertiary education. Once women had access to schooling, both school retention rates and transition to higher education became better than those for men.

Nevertheless, women's labour force participation rate has been stuck below 50 per cent for the past couple of decades. Unlike the overall rate for women aged 15–64, however, the rates for women aged 25–29 and 30–34 showed a rising trend (Figure 1.17).

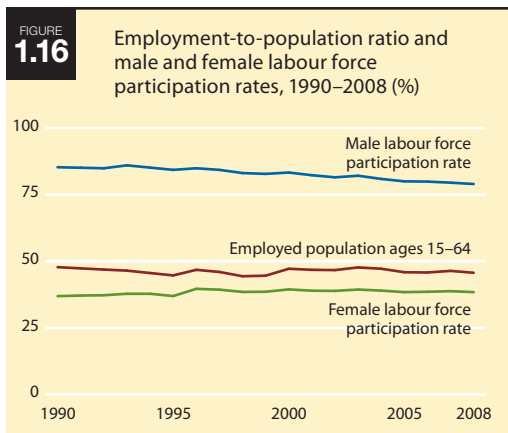
The dropout rate for the 25–29 cohort going into 30–34 remains significant, at 3–5 percentage points, probably due to marriage and child-rearing. Moreover, it is likely to lower income for women, for reasons of the cost of childcare relative to earnings.

Youth participation in the labour force (aged 15–24) bears a divergent message. The bad news is that since the 1990s it has seen a significant rise, especially for those aged 15–19 (Figure 1.18). The good news is that it has declined in recent years because of higher



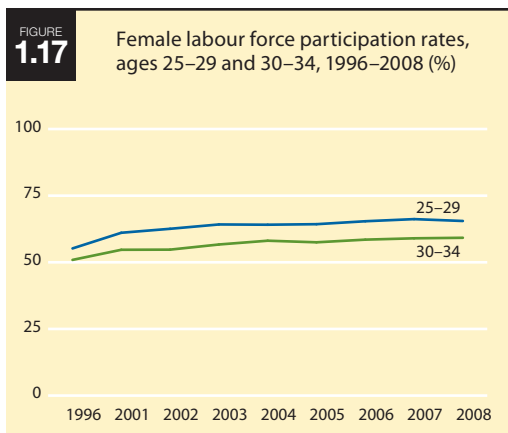
Note: Constant to 1999 is based on 1987=100 and from 2000 is based on 2000=100. The break in 2000 is because the two sets are not comparable.

Source: Asian Development Bank, 2009, Key Indicators for Asia and the Pacific 2009, based on official national data.



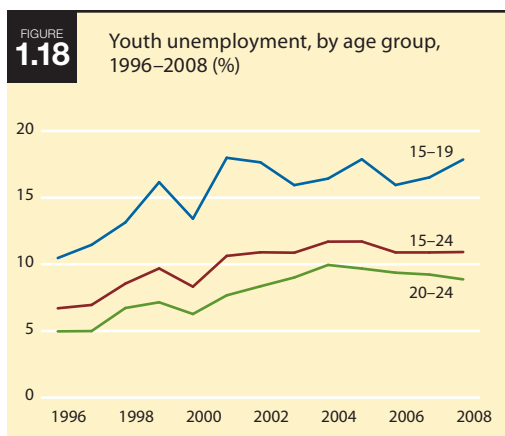
Note: The male and female labour force participation rates for 1991 and 1994 represent interpolated data.

Source: Asian Development Bank, 2009, Key Indicators for Asia and the Pacific 2009, based on official national data.



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.





Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

school-retention rates and better transition to post-secondary education.

The unemployment rate for youth aged 15–24 was 11 per cent in 2008, amounting to 230,000 persons and accounting for 60 per cent of the unemployed. Those aged 15–19 had an unemployment rate of 18 per cent, and accounted for more than 20 per cent of the unemployed. The situation deteriorated in 2009. The youth unemployment rate went up to 12 per cent, with those aged 20–24 accounting for the increase as their rate exceeded 10 per cent. Although youth unemployment in Malaysia is better than in many other countries, it is still high relative to the adult rate – more than six times higher in 2009, for example. Unemployed youth account for 5 per cent of the youth population.

Youth unemployment for women is slightly lower than for men, although the labour force participation rate for young women is much lower than for young men. The ratio of women's youth unemployment to women's adult unemployment is also higher, at 7.6 compared with 5.6 for men.

Aware of these problems, the Government recently introduced initiatives such as a "Second Chance" initiative for young people who dropped out of school to complete their schooling or to start skills training. It is too early, though, to evaluate the impact.

### Proportion of employed people living below US\$1.25 (PPP) a day

At three levels of income, the proportions of employed people below the cut-offs are small (Table 1.6).<sup>14</sup> The majority are generally rural, women, young and Malay (Table 1.7). The Other Bumiputera are, however, an increasing proportion of extreme low wage earners, accounting for almost a fifth of them in 2007.

These very low wage earners are concentrated in a few sectors that are increasingly dominated by the wholesale, retail, hotels and restaurants sector. This concentration partly accounts for the huge increase in the Other Bumiputera share, as many of them, mainly in Sabah and Sarawak, are employed in this broad sector. Low-wage manufacturing, improved from 1999, still employs a fifth of these very low-wage earners.

While this category accounts for a small share of total wage earners, a disproportionate number are from vulnerable groups. The large increase in the Other Bumiputera is of particular concern. Another is that half are youths, though they account for only 18 per cent of employees. This high share, along with the youth unemployment rate, could well lead to the next generation of households in poverty, unless stronger steps are taken now.

### Proportion of own-account and contributing family workers in total employment

This indicator requires some unpacking if it is to serve as a meaningful measure of the absence of decent employment, particularly given government policy to encourage self-employment as a mark of entrepreneurship. One initiative was to open the Employees' Provident Fund to the self-employed

14. This subsection considers only wage recipients. It excludes employers, the self-employed and unpaid family workers. Because the indicator is a measure of available income, it excludes employer contributions to Malaysia's social protection schemes, but includes allowances, bonuses, commissions and receipts in kind.



TABLE  
1.6

Incidence and number of employees earning less than selected levels, 1999–2007

Year	< US\$1.25 (PPP)	< US\$2.00 (PPP)	< National poverty line income
1999	< 1% 30,000	1.4% 60,000	1.4% 65,000
2004	0.5% 35,000	1% 75,000	1.5% 102,000
2007	< 0.5% 25,000	< 1% 55,000	1% 85,000

Note: In 2007, US\$1.25 a day (PPP) = RM960 a year, US\$2.00 a day (PPP) = RM1,537 a year and mean unadjusted per capita national poverty line = RM2,077 a year. The equivalents for 2004 were RM969, RM1,550 and RM1,860, respectively, and for 1999, RM1,022, RM1,635 and RM1,730, respectively.

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

on a voluntary basis. Other initiatives included financial assistance to establish small enterprises.

Figure 1.19 suggests three main trends. First, the proportion of the two categories (own-account workers and contributing family workers) in total employment in Malaysia is relatively small by regional and developing-country standards.

Second, the notion that rising unemployment would naturally lead to greater self-employment does not seem to be borne out. Unemployment rose over the period,<sup>15</sup> but the share of these two categories declined. Moreover, within the period, there may even be a slight pro-cyclical aspect to self-employment. Thus taking the most recent period, even as unemployment ticked down, self-employment ticked up, and vice versa.

Third, self-employment and especially unpaid family work (Figure 1.20), declined over the period, from a high of almost 25 per cent of total employment to around 22 per cent. The proportion of men remained at around

15. The greater part of this rise can be attributed to what appears to be a secular rise in youth (15–24, especially 15–19) unemployment, from under to well over 10 per cent.

TABLE  
1.7

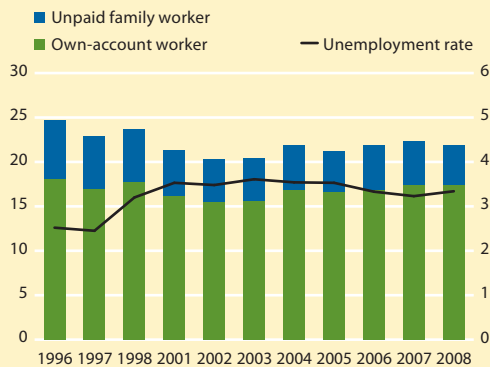
Composition of extreme low wage earners, 1999–2007 (%)

	1999	2004	2007
Rural	60	49	53
Female	56	57	55
15–24 years	52	50	50
Malay	67	67	64
Other Bumiputera	11	13	18
Indian	10	9	9
Chinese	9	10	9

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, various years.

FIGURE  
1.19

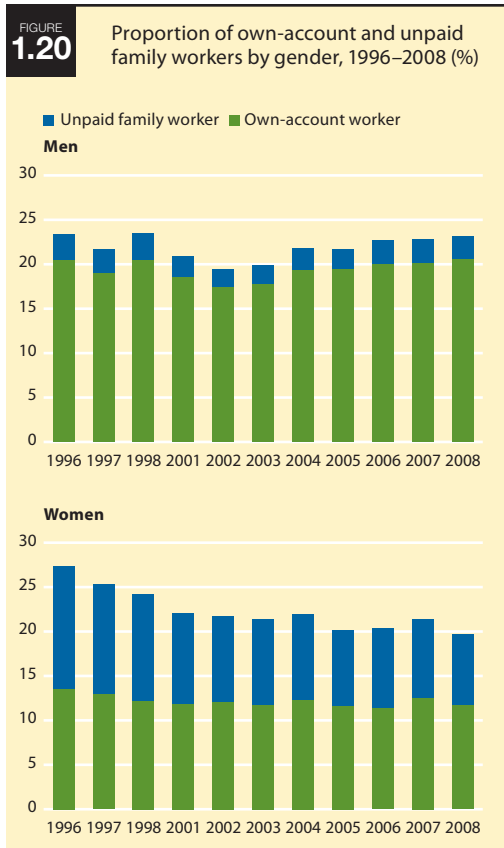
Own-account and unpaid family workers as proportion of employed, 1996–2008 (%)



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

2–3 per cent, representing about one tenth of men in the two categories combined. But the share of women represented around one half of women in the two categories, which, in turn accounted for almost 30 per cent of employed women in 1996.

The agricultural sector, including fisheries, illustrates several complexities within this dimension as it accounts for a plurality of persons in the two categories. In 1996, it accounted for almost half the two categories; in 2008, just less than 40 per cent. Over 60 per cent of those employed in the sector were own-account or unpaid family workers. Thus the above trends are a reflection of the

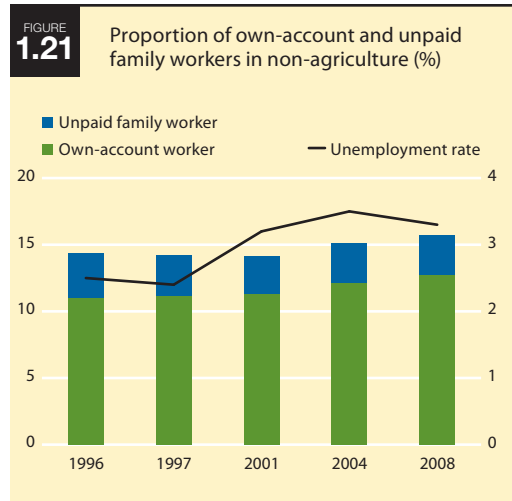


Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

declining proportion of those employed in agriculture.

Excluding agriculture brings down the share of the two categories in non-agriculture to around 16 per cent (Figure 1.21), or about 1.4 million persons in 2008. It also may suggest a relationship between own-account employment and the unemployment rate.

The much higher proportion of women as unpaid family workers and their lower proportion as own-account workers also hold outside agriculture. Own-account work is very much a male domain: men account for about 75 per cent of this category, and the proportion has risen over time. Conversely, women account for about 70 per cent of unpaid family workers, but the proportion has declined, and they are possibly being replaced by foreign workers. The proportion of women own-account workers also shows a slight decline (Figure 1.22).



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

The own-account and unpaid family workers grouping has lower educational attainment than other workers. Focusing on non-agriculture, 34 per cent of them had primary education or less, compared with 18 per cent of all employed; 10 per cent had post-secondary or tertiary education. By gender in this grouping, women had lower educational attainment than men, but not much.

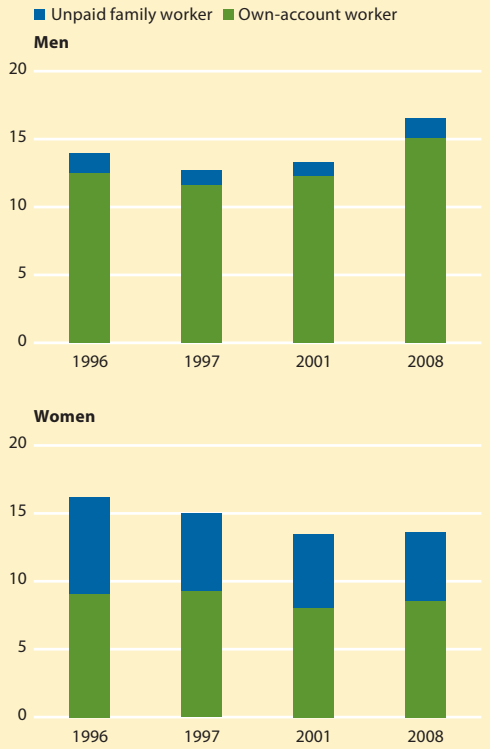
On average, the self-employed non-agricultural category (here, excluding unpaid family workers) has a significantly lower median income than those in employment (Table 1.8).

Gender differences, too, are notable.<sup>16</sup> At the median, the gap for women between being an own-account worker and an employee is large – women own-account workers have a gross monthly income half that of women employees. The gap is even worse at

16. Table 1.8 also shows the crude income gap between men and women, crude because it does not take account of various determinants of income. A regression of log (gross income) on gender, own-account/employee, education, work experience, industry, occupation, state and strata, with a crossed term for gender and own-account/employee, returns highly significant estimates on the gender terms that yield gender income differentials of the same order as in the crude table: a 37 per cent advantage for men among employees, and an 87 per cent advantage for men among own-account workers.

FIGURE  
1.22

Proportion of own-account and unpaid family workers in the non-agricultural sector by gender, 1996–2008 (%)



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

the bottom. The same gap for men is much smaller, suggesting that own-account work for men, aside from offering no social protection, is not much less remunerative than work as an employee.

The gap between men and women own-account workers is even larger than the within-gender gap. For women, therefore,

it is advantageous to go into employment, if available, probably explaining why the proportion of women in own-account work appears to have declined. The choice is not so clear for men, however, especially in the 10th percentile.

Against this differential in income, own-account and unpaid family workers work fewer hours than employees (Table 1.9). It gives only the mean, as the mean and median hours are almost the same; the median, other than for own-account and unpaid family workers, is the 48-hour week.

In summary, the situation of own-account workers in Malaysia outside agriculture is complicated. Any policy towards them has to be carefully designed, but initiatives such as opening the Employees' Provident Fund to own-account workers are clearly warranted. Other social protection measures covering employees should also be made available to own-account workers. More broadly, social protection for all workers needs to be expanded. Yet the vulnerability of women in own-account work is evident, a fact that must be kept in focus in the desire to generate women entrepreneurs.

## Halving the proportion of people who suffer from hunger

No direct surveillance time-series data are available on the proportion of people – children or adults – suffering from hunger. For children, the data available are:

- Ministry of Health data on the proportion of under-five children suffering from moderate

TABLE  
1.8

Gross monthly income by employment status and gender, non-agriculture, 2007 (RM)

	Male		Female	
	Own account	Employee	Own account	Employee
10th percentile	654	680	170	467
Median	1,360	1,700	621	1,298
90th percentile	4,057	4,338	2,008	3,432

Source: Economic Planning Unit; Malaysia, Department of Statistics, Household Income Survey, 2007.

TABLE  
1.9

Mean hours worked by gender and employment status, 2007

	Total	Employer	Employee	Own-account worker	Unpaid family worker
Male	47.8	52.0	49.3	42.4	42.0
Female	46.5	51.8	47.9	40.6	42.2
Total	47.3	52.0	48.8	42.0	42.1

Source: Economic Planning Unit; Malaysia, Department of Statistics, Labour Force Survey Report, 2007.

or severe under-nutrition. These data are based on children attending health clinics and not on population surveys, but they do provide a time series and can be taken as indicative of trends but not actual levels.

- A 2006 survey of the nutritional status of children under 18, under the auspices of the Third National Health and Morbidity Survey in 2006.<sup>17</sup> This provided a cross-sectional overview at a point in time that can be taken as indicative of actual levels. (Unfortunately, there was no similar survey in the Second National Health and Morbidity Study, 1996.)

For adults, there are no data. The Food and Agriculture Organization of the United Nations estimates that fewer than 5 per cent of the population in Malaysia are under-nourished, deems the number to be “not significant” and estimates the food deficit of the under-nourished to be about 130 kilocalories per person a day, which is well below the simple mean deficit of the 176 countries covered.<sup>18</sup>

### Child hunger

Using the Ministry of Health’s clinic data, the country has probably cut by half the proportion of children with moderate under-nutrition, or is likely to achieve it by 2015 (Table 1.10).

The Third National Health and Morbidity Survey provides a better guide to the actual level of moderate under-nutrition, as it was a representative sample survey focusing on

prevalence. The survey arrived at an overall prevalence of 7 per cent for children under 1 year of age, 20 per cent for children aged 1–3 and 16 per cent for children aged 4–6.

The survey also established a clear relationship between under-18 under-nutrition and income, with the lowest income bracket having an incidence of 21 per cent and the highest 7 per cent. The same was true for stunting.

As the poor are more likely to have under-nourished children, the depressed incidence of under-nourishment in the clinic data suggests a selection bias. This carries implications for the effective access of the poor to clinics.

Even so, the Ministry of Health’s clinic data are most likely a reliable indicator of trends, but not of the actual levels at any point in time. Looking across the end points, the target of halving the incidence of under-nutrition among under-five children has been met across states. This is not the case with severe under-nutrition (Table 1.11), but the proportions are small and, given the provenance of the data, subject to very large errors. The situation in Sarawak and Pahang, especially the former, needs to be monitored.

Focused on poverty, tracking it very closely, the Government may need to do the same for child hunger, even though the indications are that there has indeed been a significant reduction.

It is clear that some states are doing consistently worse than the national mean – Sarawak, Pahang, Kelantan, Terengganu, Kedah, Negeri Sembilan and Perlis. The anomaly is Negeri Sembilan; the rest are states that, over this period, have had a higher

17. IPH (2008).

18. <http://www.fao.org/economic/ess/food-security-statistics/en>.

TABLE  
1.10

Incidence of moderate under-nutrition among under-five children attending health clinics by state, 1990 and 1995–2008 (%)

State	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Malaysia	24.5	19.5	13.0	11.5	11.1	9.9	8.5	7.5	7.1	6.1	5.8
Johor	15.4	13.5	5.3	4.7	4.6	3.3	3.1	2.2	2.6	2.5	1.5
Kedah	24.8	21.6	15.5	12.1	12.5	13.1	8.2	7.3	6.3	4.6	3.9
Kelantan	31.1	24.9	13.9	15.5	15.1	11.5	11.8	8.7	9.7	7.7	8.6
Melaka	26.1	24.9	20.4	8.4	5.9	6.6	6.8	5.1	4.7	3.9	3.3
Negeri Sembilan	29.5	17.6	12.6	12.2	10.7	9.2	8.1	8.5	5.9	5.6	4.4
Pahang	29.3	22.3	14.1	16.4	18.7	15.0	14.0	10.0	10.8	9.3	7.2
Perak	27.6	19.0	10.0	10.0	9.7	8.4	7.4	7.1	5.8	4.9	4.8
Perlis	30.4	19.8	12.6	19.4	14.7	11.9	7.8	9.8	5.8	10.8	9.9
Pulau Pinang	25.4	15.7	13.5	12.4	11.2	7.9	6.7	6.0	6.5	4.2	3.8
Sabah	na	22.9	12.6	11.5	10.6	8.9	8.2	8.5	6.5	6.3	7.1
Sarawak	22.4	17.9	14.9	14.1	13.4	12.9	11.5	11.3	10.9	12.1	10.7
Selangor	21.7	15.4	14.7	9.3	9.6	10.6	7.1	5.8	7.3	4.5	4.3
Terengganu	26.9	27.9	13.6	12.3	10.8	9.4	10.1	11.5	8.4	6.8	8.6
Kuala Lumpur	na	na	na	na	na	na	na	na	na	2.2	3.4
Labuan	na	na	na	na	<sup>a</sup>	<sup>b</sup>	3.9	4.5	3.6	5.2	4.4
Putrajaya	na	na	na	na	<sup>a</sup>	<sup>b</sup>	na	4.7	8.0	8.0	6.0

a. Data for Labuan and Putrajaya for 2002 are 3.9.

b. Data for Labuan and Putrajaya for 2003 are 2.4.

na = not applicable.

Note: Moderate malnutrition is weight for age  $\geq$  -3SD to < -2SD.

Source: Malaysia, Ministry of Health.

incidence of poverty. This could, however, be a reflection of the condition of the Orang Asli population in the state. This point can only be resolved with better data.

Noteworthy is the apparent deterioration in Sarawak and Pahang relative to the national mean, in contrast to their poverty reduction record where they have substantially closed the gap with the national mean. On the positive side, Melaka and Perak stand out in unambiguously reversing their situation over this period. The worse-off states could derive a lesson here, especially as the reversal is not the outcome of income growth alone.

Finally, there is large variation by district. For instance, within the state of Sarawak, data from Sarawak Health Department for 2000–2003 show some districts with an incidence of combined moderate and severe under-five under-nutrition approaching 30 per cent.

## The way forward

### Poverty by state and rural/urban location

While the poverty-reduction agenda has largely been successful in Malaysia, the rural–urban gap remains a challenge, as does the interstate gap, especially for one state. It is highly probable that there are substantial inter-district gaps as well, and enhancing and enriching data capture will be one of the efforts required to track those gaps.

### Poverty among Other Bumiputera

While all ethnic groups have experienced large declines in poverty, the situation of the Other Bumiputera will require sharper focus, especially because they now make up a majority of the poor in the country. In addition, Other Bumiputera are also lagging in other dimensions, from schooling to adequate water

TABLE  
1.11

Incidence of severe under-nutrition among under-five children attending health clinics by state, 1990 and 1995–2008 (%)

State	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Malaysia	0.5	0.6	1.0	0.9	0.9	0.7	0.7	0.6	0.6	0.5	0.5
Johor	0.1	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0
Kedah	0.6	1.0	0.7	0.7	0.7	0.8	0.5	0.4	0.5	0.1	0.1
Kelantan	0.7	0.7	1.2	0.8	1.0	0.6	0.7	0.6	0.2	0.6	0.5
Melaka	0.3	0.6	0.5	0.3	0.1	0.2	0.1	0.1	0.2	0.3	0.2
Negeri Sembilan	0.7	0.6	1.3	0.8	0.9	0.6	0.6	0.6	0.5	0.5	0.2
Pahang	0.5	0.9	0.9	1.3	1.4	1.2	1.4	0.9	1.2	0.9	0.7
Perak	0.8	0.7	0.9	0.8	0.9	0.7	1.0	0.8	0.6	0.5	0.3
Perlis	0.4	0.2	1.1	1.0	0.6	0.9	0.9	0.7	0.4	0.6	0.9
Pulau Pinang	0.6	0.2	0.9	0.7	0.5	0.6	0.5	0.3	0.4	0.1	0.1
Sabah	na	0.8	1.2	1.2	1.2	0.8	0.7	0.8	0.6	0.8	0.8
Sarawak	0.4	0.6	1.9	1.9	1.7	1.4	1.3	1.5	1.2	1.1	1.2
Selangor	0.2	0.1	0.5	0.4	0.5	0.5	0.6	0.4	0.4	0.2	0.3
Terengganu	0.8	1.2	0.6	0.6	0.5	0.6	0.6	0.8	0.6	0.5	0.5
Kuala Lumpur	na	na	na	na	na	na	na	na	na	0.3	0.3
Labuan	na	na	na	na	<sup>a</sup>	<sup>b</sup>	0.5	0.3	0.2	0.4	0.1
Putrajaya	na	na	na	na	<sup>a</sup>	<sup>b</sup>	na	0.3	0.7	1.4	0.0

a. Data for Labuan and Putrajaya for 2002 are 0.3.

b. Data for Labuan and Putrajaya for 2003 are 0.5.

na = not applicable.

Note: Severe malnutrition is weight for age < -3SD.

Source: Malaysia, Ministry of Health, Malaysia.

supply and electricity supply. Such a focus has been outlined in the Tenth Malaysia Plan (2011–2015), which also seeks to take into account the cultural differences of the indigenous minorities and to engage them in a participatory way in the design, implementation and monitoring of programmes. The Plan envisages working with their social protection systems and supporting them, rather than inadvertently displacing them by inappropriate interventions.

### From poverty to vulnerability

In the process of targeting, attention will also be given to the vulnerable: that is, those whose incomes are slightly above the poverty line as they are unable to withstand small shocks to their income, whether from ill health or a loss of income. Those with household incomes of up to 25 per cent above the poverty line totalled 1.25 million persons in 2009. The current register of the poor – e-Kasih – will play a more

significant role as a policy and planning instrument in line with its mandate to enhance co-ordination, minimize duplication and wastage, strengthen packaging of programmes and inputs and improve monitoring and evaluation, in addition to tracking disbursements.

### Women and poverty

Female-headed households have greater odds of being poor than male-headed households, but it is encouraging that some targeting efforts such as microcredit have had an impact. Greater understanding is needed, and this is one area for more qualitative assessments.

Women own-account workers earn very much less than employed women. Both these categories earn significantly less than their male counterparts, suggesting the need for anti-discrimination initiatives.

Action is required to tackle the issue of women in their late 20s continuing to drop out

of the labour force. Initiatives in this area, and on women's labour force participation more generally, have had only limited impact.

### Income inequality

Income inequality has been reduced only slightly. Those at the bottom of the income distribution did not see any significant increase in their share of total income during 1970–2009.

The introduction of a relative poverty approach in the current re-thinking of development strategy is timely. But as with poverty, it is necessary to recognize that inequality is not just income inequality. It is multi-dimensional, and this is especially so with spatially structured inequalities and the provision of services.

The introduction of an appropriate minimum wage – with allowance and assistance for appropriate categories of firms and enterprises, and associated policies to cover possible dis-employment of the low waged – can be an important action to kick-start a number of fronts, as also to “cull” low productivity enterprises dependent on low-wages, often foreign labour, to survive.

To assist such a broad rethinking requires data gathering and monitoring efforts oriented towards appropriate indicators.

### Youth unemployment

Youth unemployment is high, affecting a quarter of a million young people, men and women, and a high 5 per cent of the youth population. A “Second Chance” programme has been recently introduced, but it is too early to evaluate its impact. Data on youth are sketchy, though it is suspected that the majority are from poor and low-income households. As unemployment drops sharply for the 25–29-year-old age group, efforts will be explored to determine if youth unemployment is transitory or if the unemployed youth have dropped out of the labour force.

### Child poverty and hunger

Children today constitute almost half the country's poor people, and almost two thirds

of a million children live in poverty. In addition, the Department of Statistics' Basic Amenities Survey 2007 highlighted the relative deprivation of poor children on access to health, education and other basic needs such as shelter and information.<sup>19</sup> It suggests that further analysis is needed to understand the correlation between the incidence of child poverty and key demographic and other indicators, highlighting particular risk factors for falling into and remaining in child poverty. So, although numerous programmes are directed at various aspects of child poverty and the needs of poor families, a more coordinated and targeted approach to addressing multiple needs of both children and their families is needed. And given that half the children in poverty are Other Bumiputera, interventions must take account of their cultural needs.

More systematic child-poverty data collection and monitoring are required to facilitate interventions in a timely and consistent fashion. Assessments should combine relative poverty, absolute deprivation and depth of poverty.

Yet economic security is only one aspect of child poverty. Addressing child poverty should also include an assessment of a child's cognitive development, achievement in school, aspirations, risk behaviours and employment prospects, as they are all important evidence for developing targeted social policies for all, including the most vulnerable children. Evidence from many countries demonstrates that many children who grow up poor are vulnerable and are more likely to be in poor health, to face learning and behavioural difficulties, not to excel in school and to be exposed to other vulnerabilities. All this contributes to widening inequality, especially for countries transitioning out of a developing state. The Government may wish to consider applying a multi-dimensional approach to assessing child well-being in order to improve the understanding, implementation and effectiveness of its policies.

19. Department of Statistics (2009).

## Annex 1.1

**TABLE A1.1** MDG 1 targets and indicators

Target	Indicator	Notes
<b>Target 1A:</b> Halve, between 1990 and 2015, the proportion of people whose income is less than US\$1 a day	<b>1.1</b> Proportion of population below US\$1 (PPP) per day	National poverty line income used to estimate proportion of households below the poverty line. Latest available data: 2009.
	<b>1.2</b> Poverty gap ratio	How poor are the poor: mean ratio of distance from poverty line, with all households above the poverty line assigned zero distance. This measures the mean percentage the poor fall short of the poverty line.
	<b>1.3</b> Share of poorest quintile in national consumption	Share of poorest 20 per cent of households sorted by household income. Another measure of how poor are the poor.
<b>Target 1B:</b> Achieve full and productive employment and decent work for all, including women and young people	<b>1.4</b> Growth rate of GDP per person employed	Measured at constant local currency units as well as purchasing power parity and US\$. For comparison with household income and earnings, current local currency units are used. This is a measure of the productivity of workers and establishes an upper bound to possible earnings per worker on an equal share basis.
	<b>1.5</b> Employment-to-population ratio	Employed as a proportion of persons in the 15–64 working age group. Measure of participation in remunerated employment.
	<b>1.6</b> Proportion of employed people living below US\$1 (PPP) per day	Estimated from the Household Income Survey and the national poverty line with a simple adjustment for an adult equivalent: household size × 0.75.
	<b>1.7</b> Proportion of own-account and contributing family workers in total employment	Measure of “informal” sector. Estimated from labour force surveys, using the category of self-employed and unpaid family worker. Characteristics, including earnings, of such workers are derived from the Household Income Survey.
<b>Target 1C:</b> Halve, between 1990 and 2015, the proportion of people who suffer from hunger	<b>1.8</b> Prevalence of underweight children under five years of age	Ministry of Health supplied data for individual states, based on children visiting Ministry of Health clinics, using a weight-for-age metric, with those more than two standard deviations below the standardized median classified as moderately underweight and those more than three standard deviations below it, severely underweight.
	<b>1.9</b> Proportion of population below minimum level of dietary energy consumption	The country does not gather data on this indicator. In this chapter, it is proxied by those below the national food poverty line income: that is, those classified as “hard-core” poor.

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# MDG 2

## Achieve universal primary education



### MDG 2 has a single target:

- Ensure that, by 2015, children everywhere, boys and girls, will be able to complete a full course of primary schooling.

Nationally, Malaysia is close to achieving the target.

This is of utmost importance for the country, since educational attainment is a critical measure of development. It is correlated with economic growth and with achievements in poverty reduction, health (including maternal and child health) and broad quality of life indicators.

Education in Malaysia has undergone tremendous development since independence in 1957. From a diverse and fragmented system based on communal needs, it has evolved into an integrated national system that seeks to be responsive to a changing economic and technological landscape and evolving national aspirations. The Government has devoted substantial public resources to education: in the four decades from 1970, except during the mid-1980s when there were cutbacks due to an economic downturn, public expenditure on education averaged over 20 per cent of total public expenditure. Spending per student at primary level is about 11 per cent of per capita GDP.

The public sector provides most primary and secondary education, although private provision at both levels has increased since the early 1990s. Thus rising school participation and completion rates at these two levels are essentially the achievement of a publicly provided service. As school enrolments have climbed, programmes to reach poor and remote populations have been developed or expanded in earnest in a “last-mile” effort to attain full enrolment and completion. The introduction of compulsory education in 2003, beginning at primary level, bolstered this achievement.

In this manner Malaysia has attained almost universal primary education and is on the way to achieving universal secondary education. The gender gap in educational participation has been eliminated at primary and secondary levels, while women now exceed men at tertiary level.

Today the crucial challenge for Malaysia is the quality of education and the ability to tailor education to the needs of a rapidly changing economic landscape. The focus must be on the remaining gaps in participation and completion among states, urban and rural populations, income groups and the many small indigenous minorities (Other Bumiputera).

MDG 2 has three indicators: rates of participation, completion and literacy. The measurement of these rates is shown in the chapter annex. This chapter documents Malaysia's achievements in education, points to remaining gaps and addresses issues of quality, especially in a regional context and with reference to Malaysia's ambition to become a high-income economy.

## Government commitment

Education falls under the purview of the Federal Government. Since independence, there have been comprehensive educational plans in all the Malaysia five-year plans and the Long-Term Perspective Plans. In 2001, the Ministry of Education (MOE) produced a Blueprint Education Development Plan 2001–2010. The Education Development Master Plan was developed in 2006 to serve as a comprehensive implementation guideline for education development under the Ninth Malaysia Plan (2006–2010). The Master Plan specifies the focus, objectives, plan of actions, main strategies and performance indicators of six thrusts.<sup>1</sup> In October 2009, the Government announced widening access to quality and

affordable education as one of six national priorities in the National Key Results Areas, and targets for 2012 include the following:

- Increase the pre-school enrolment rate of children aged 4-plus and 5-plus, and improve the quality of the system.
- Ensure that all children have acquired basic literacy and numeracy skills after three years of education.
- Develop High Performing Schools and lift the performance of all schools in the system.
- Significantly improve the performance of head teachers and principals through performance management.

The Government's commitment to education is reflected in the size of the capital and recurrent budgets. In 2000–2007, education was accorded 20–27 per cent of the annual recurrent budget. During 1970–2009 on the capital side, 3,299 primary and 1,472 secondary schools were built.<sup>2</sup>

To further improve access to high-quality education, under the Tenth Malaysia Plan (2011–2015), the Government is considering lowering the start of the formal schooling age from 6-plus to 5-plus as this will extend access to structured education for children during their formative years. The Government will also take measures to enhance the quality of the new teacher intake and upgrade the quality and professionalism of all existing teachers. In addition, it plans to introduce a Teach for Malaysia programme to attract the best and brightest Malaysian graduates to teach for two years at underperforming or rural schools. It will also revamp the education system to focus on implementation and delivery capability. Investments are in place for school infrastructure and facilities, especially for rural schools in Sabah and Sarawak.

The years have seen numerous policy reforms and changes of curriculum to meet shifting national and global demands. The

1. Building a nation-state, developing human capital, enhancing national schools, bridging educational gaps, enhancing the teaching profession and accelerating excellence of educational institutions.

2. MOE, *Quick Facts* (2002; 2005; 2007); and MOE, *Education Statistics* (1970; 2009).

Education Act recognizes the right of all children to have equal access to education, regardless of their location and socio-economic status. Article 12 of the Federal Constitution prohibits discrimination against any citizen on the grounds only of religion, race, descent or place of birth. Malaysia's commitment to education is also manifest in its commitment to Education for All and MDG 2.

In teacher education, the MOE strives to enhance the profession by providing high-quality teachers. It selects only those who possess the quality, competency, integrity, qualification, interest, commitment and passion of an educator to become teachers. To raise the number of graduate teachers, the Cabinet approved upgrading Teacher Training Colleges to Teacher Education Institutes, thus allowing those institutions to provide teacher training at degree level. As a mark of its growing confidence, Malaysia began to take part in several international studies such as the Trends in International Mathematics and Science Study (TIMSS) from 1999 at eighth grade (Form 2) level, and the World Education Indicators Survey for Primary Schools. Recently, it took part in the Programme for International Student Assessment for 15-year-olds.

In short, Malaysia's educational achievements are an outcome of a firm government commitment to providing education for all, backed by its allocating the required resources and undertaking periodic reviews as circumstances change.

## Status and trends

Malaysia provides universal education to all citizens at primary and secondary levels. Primary school covers six years, from Primary 1 to Primary 6, and secondary education covers five, from Form 1 to Form 5. A full course of schooling is thus 11 years. Primary schooling is compulsory, but punitive enforcement has yet to be implemented.<sup>3</sup> The school system

practises automatic promotion, with standardized nationwide examinations at the end of the 6th, 9th and 11th years (respectively, the Primary School Achievement Test or UPSR, the Lower Secondary Assessment or PMR and the Malaysian Certificate of Education or MCE).

Although Malaysia has private schools at primary and secondary levels, the majority of children attend public schools operated by the MOE. The primary level has three languages of instruction: Bahasa Malaysia (the national language), Mandarin and Tamil. The secondary level uses Bahasa Malaysia as the medium of instruction.

MOE schools provide assistance – such as textbook loan schemes, supplementary nutrition programmes and, most recently, cash transfers – to encourage children from poor families to attend and remain in school. The recent initiative is an attempt to reach out to the remaining pockets not attending primary school. In interior areas, some primary schools have boarding facilities to encourage attendance among children who live some distance away, making a daily commute impractical. In addition, schools serve as a conduit for health care, including dental care and outreach activities.

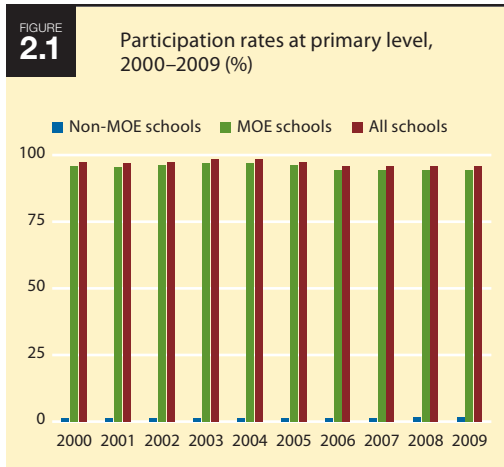
Malaysia is well on target to achieve universal primary education by 2015 if it can increase the intake rate to first year at primary level from the current 96 per cent to at least 98 per cent. Allowing for estimation errors, it is close to achieving the MDG 2 target at the aggregate country level.

## Participation rates

The aggregate participation rate at primary level has been above 96 per cent since 1990 (Figure 2.1). Almost all the relevant school-age population attends MOE primary schools, with fewer than 2 per cent in non-MOE schools.

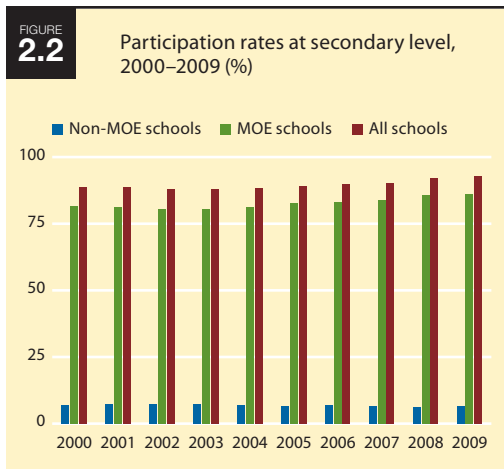
3. Punitive action may negatively affect parents in poor or very remote families. The Government prefers to

persuade these parents through various intervention programmes, such as providing boarding-school facilities and scholarships.



*Note:* Data cover students in non-MOE schools, Sekolah Agama Negeri (Primary State Religious Schools or SAN) and Sekolah Agama Rakyat (Primary People’s Religious Schools or SAR) but not other institutions such as vocational training institutions and community rehabilitation centres for the handicapped. Estimates of enrolment at non-MOE religious schools were made on the basis of data provided by Textbook Division, 2009. Population data are projected figures made on the basis of the 2000 census (revised by EPU).

*Source:* Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics 2000 to 2009; Malaysia, Ministry of Education, Textbook Division (unpublished report); 2000 Census, Department of Statistics.



*Note:* Data cover students in non-MOE schools such as private schools, Sekolah Menengah Agama Negeri (Secondary State Religious Schools or SMAN), Sekolah Menengah Agama Rakyat (Secondary People’s Religious Schools or SMAR) but not other institutions such as vocational training institutions and community rehabilitation centres for the handicapped. Estimates of enrolment at non-MOE religious schools were made on the basis of data provided by Textbook Division, 2009. School-age population data 2001–2009 are projected figures made on the basis of the 2000 census (revised by EPU).

*Source:* Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 2000 to 2009; Malaysia, Ministry of Education, Private Education Division; Malaysia, Ministry of Education, Textbook Division; 2000 Census, Department of Statistics.

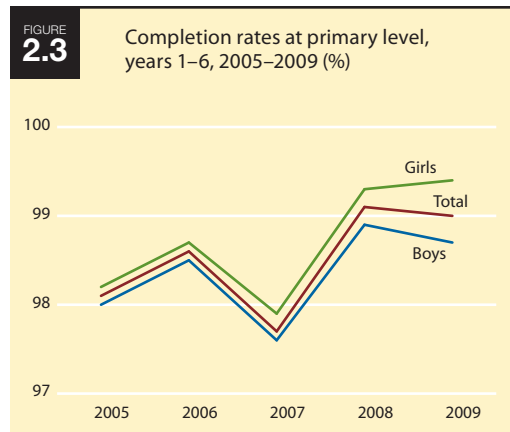
The secondary-level participation rate improved from 88.2 per cent in 2000 to 92.7 per cent in 2009 (Figure 2.2).

**Completion rates**

Primary completion rates continue to rise. For students who enrolled in Year 1 in 2000–2004 and were in Year 6 in 2005–2009, the rate increased from 98.1 per cent in 2005 to 99 per cent in 2009. Completion rates were slightly higher for girls than boys, but the gap became more noticeable in 2009 (Figure 2.3).

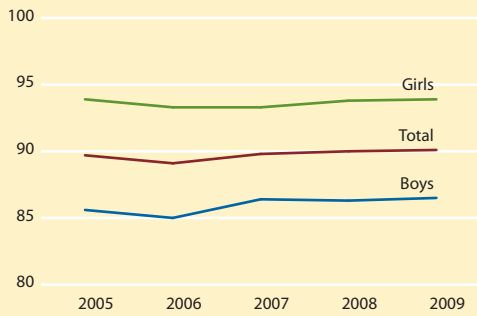
Secondary completion rates, while lower than primary, are slightly above 90 per cent (Figure 2.4). For the cohorts in Form 5 (the final year of secondary education) in 2005–2009, they rose from 89.7 per cent to 90.1 per cent. The real rate is, though, higher than reported, as the data do not capture students leaving MOE schools to join non-MOE schools at Form 4.

The number of dropouts in the transition from primary to secondary remains a challenge. About 8–10 per cent of Year 6 students (44,000–55,000 children) did not continue to secondary education in MOE schools in 2005–2009. However, 5 per cent continued their education in non-MOE schools; thus about 3–5 per cent did not continue into



*Note:* Data cover MOE schools only. More than 94 per cent of secondary school age population attended MOE schools and about 1.2–1.7 per cent attended non-MOE schools. Disaggregated data by grade and gender for non-MOE schools are unavailable.

*Source:* Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 2000 to 2009.

FIGURE  
2.4Completion rates at secondary level,  
Forms 1–5, 2005–2009 (%)

Note: Data cover MOE schools only. More than 86 per cent of secondary school age population attended MOE schools and about 6.7 per cent attended non-MOE schools. Disaggregated data by grade level and gender for non-MOE schools are unavailable.

Source: Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 2000 to 2009.

secondary education each year during the period (Table 2.1).

### Literacy rates

Literacy among the 15–24-year-old population climbed from 75 per cent to 97 per cent during 1970–2000 (Table 2.2). It was higher for males in 1970–1991. By 2000, however, the female literacy rate had marginally overtaken the male rate. This is consistent with the trend in completion rates by gender at all educational levels.

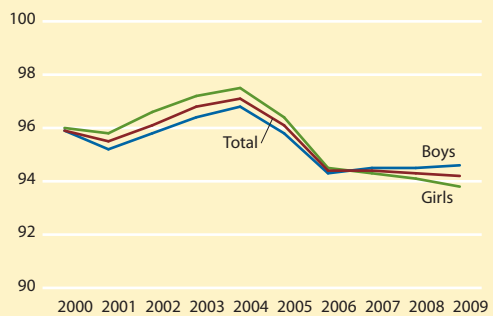
### Participation rates by gender

Allowing for estimation errors of age cohorts, participation rates at primary level show gender parity (Figure 2.5). The apparent drop in the rates for girls after 2006 should be validated with the 2010 census results and the subsequent adjustment to population estimates. Completion rates are, however, consistently

TABLE  
2.2Literacy rates of 15–24-year-olds, selected  
years (%)

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

Source: Malaysia, Department of Statistics, Population and Housing Census of Malaysia, 1970; 1980; 1991; 2000.

FIGURE  
2.5Participation rates at primary level,  
2000–2009 (%)

Note: Data cover MOE schools only. More than 94 per cent of secondary school age population attended MOE schools and about 1.2–1.7 per cent attended non-MOE schools. Disaggregated data by grade and gender for non-MOE schools are unavailable. School-age population data 2001–2009 are estimates projected based on 2000 census (revised by EPU).

Source: Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 2000, 2001, 2009; 2000 Census, Department of Statistics.

higher for girls at both primary and secondary levels (see Figures 2.3 and 2.4).

### Completion rates by state

At the aggregate level, completion rates at primary level have increased and dropout rates have declined, with interstate, interdistrict, urban–rural and income-group variations.

TABLE  
2.1

## Dropouts during the transition from primary to secondary, MOE schools, 2001–2009

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number	55,179	48,171	44,855	42,109	44,175	48,465	52,060	42,868	45,785
Per cent	11.5	10.9	9.6	8.9	9.0	9.7	10.4	8.5	9.0

Note: About 5 per cent of students from MOE primary schools continued their education in non-MOE secondary schools.

Source: Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 2000 to 2009.

Nevertheless, all states and regions have seen increases in completion rates. Completion and dropout rates should be seen as indicative only, due to the movement of students between schools, between systems across states and between rural and urban areas.

During 1996–1999, the average dropout rates at primary level were high in Sabah (14.9 per cent), and quite high in Sarawak (6.5 per cent) and Pahang (4.0 per cent). Although the average dropout rate in Kuala Lumpur appeared to be quite high (5.9 per cent), this was due to out-migration, as reflected in the increased average enrolment rates in neighbouring states such as Selangor (2.4 per cent) and Melaka (1.2 per cent).

Matters have improved substantially since then, with major increases in primary completion rates in Sabah, Sarawak and Pahang, reflected in the sharp decline in dropout rates. From 2005 to 2009, the dropout rate fell

from 16.5 per cent to 5.3 per cent in Sabah, from 3.2 per cent in 2005 to 2.1 per cent in Sarawak and from 2.1 per cent to 0.9 per cent in Pahang (Table 2.3).

In 2001–2004, MOE secondary schools had fairly high dropout rates in some states, irrespective of the development level (Figure 2.6). The highest average dropout rate was in Sabah (25.7 per cent), followed by Sarawak (19.6 per cent) and Johor, Perak and Kuala Lumpur (around 15 per cent). The situation in more developed states can be explained by moves to non-MOE schools, which tend to be in the richer states and in large cities. This accords with enrolment data for private schools by state.

In 2005–2009, the average dropout rate declined in all states, but the pattern did not change much. Sabah, however, recorded significant improvement, from 25.7 per cent to 17.2 per cent. The highest dropout rate was

TABLE  
2.3

Dropout trend in MOE primary schools by state, 1996–2009 (%)

State	Dropout rate								
	1996	1997	1998	1999	2005	2006	2007	2008	2009
Malaysia	-3.4	-3.2	-2.6	-2.7	-1.9	-1.4	-2.3	-0.9	-1.0
Sabah <sup>a</sup>	-13.3	-14.4	-14.4	-16.3	-16.5	-12.8	-10.2	-6.1	-5.3
Labuan						-11.7	-11.4	-10.5	-13.8
Sarawak	-8.0	-7.7	-6.8	-5.2	-3.2	-2.9	-2.2	-2.4	-2.1
Pahang	-4.9	-5.0	-5.3	-3.8	-2.1	-1.4	-1.7	-1.2	-0.9
Kuala Lumpur	-5.7	-5.7	-5.0	-7.2	-8.3	-6.1	-3.4	-10.2	-5.9
Negeri Sembilan	-1.6	-0.3	0.6	1.2	2.0	2.4	-3.7	2.1	1.3
Selangor <sup>b</sup>	1.5	1.8	3.8	2.5	3.9	3.3	-3.2	1.7	1.0
Melaka	-0.3	1.6	1.4	1.8	2.0	1.7	1.3	3.1	1.4
Johor	-1.8	-1.8	-1.2	-0.9	-1.1	-0.4	-0.6	-1.7	-1.8
Kelantan	-1.5	-1.3	-2.7	-1.5	-0.7	0.3	-2.3	0.1	1.5
Perak	-3.3	-2.3	-1.9	-0.9	-0.5	-0.1	-1.1	-1.2	-0.8
Pulau Pinang	-2.1	-1.9	-1.3	-1.3	-0.3	-1.3	-6.5	1.2	-1.6
Kedah	-1.3	-1.9	-2.3	-1.9	1.2	1.7	1.3	1.6	1.5
Perlis	0.0	-1.8	-1.0	-0.2	1.8	2.1	-6.9	3.9	3.0
Terengganu	-1.7	-1.5	1.8	0.3	-0.5	0.3	0.2	0.4	1.0

a. Labuan was part of Sabah until 2001 (data for Grade 1 cohort in 2001 and Grade 6 in 2006).

b. Including Putrajaya.

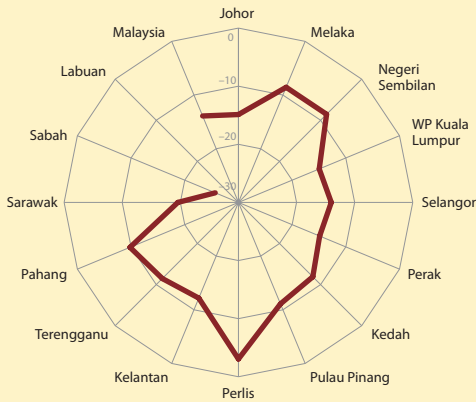
Note: Negative numbers refer to the dropout rate; positive numbers refer to increased student enrolment, perhaps due to in-migration.

Source: Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 1990, 1991, 2009.

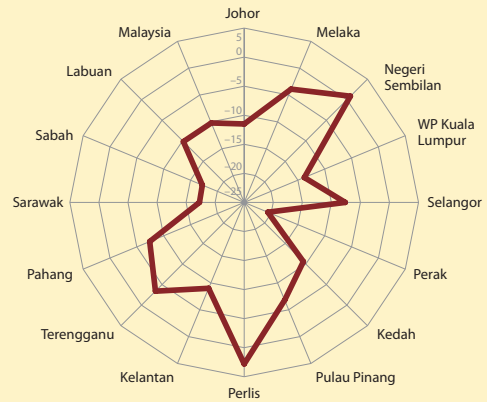


FIGURE  
2.6

Average dropout rate in MOE secondary schools by state, 2001–2004 (%)



Average dropout rate in MOE secondary schools by state, 2005–2009 (%)



*Note:* Prior to 2001, Labuan was part of Sabah and thus the dropout trend in Labuan cannot be seen in 2001–2004 analysis. For calculation purposes, students moving from one state to another are considered dropping from the one they left, but they did not actually drop out of the system. Out-migration from Kuala Lumpur to neighbouring states such as Selangor and Negeri Sembilan resulted in enrolment increases in these neighbouring countries. Data did not include enrolment in the non-MOE schools.

*Source:* Malaysia, Ministry of Education, Educational Planning and Research Division, Malaysian Educational Statistics, 1991, 2000 to 2009.

in Perak at 20.6 per cent, rising from 14.9 in 2001–2004.

In the less developed states, a 2004 MOE–UNESCO study found that almost 85 per cent of students who dropped out came from poor families.<sup>4</sup> But a meta-analysis of this and other studies revealed that the proximate reasons for dropping out were low academic achievement, low interest and discipline problems.<sup>5</sup> Interaction between these factors and poverty made it appear that poverty was the main reason for the dropouts. Nevertheless, students from poor families are at greater risk of dropping out. This has led the Government to introduce support programmes targeting students from disadvantaged families to ensure that they have equal opportunities for education.

For Sabah and Sarawak, additional reasons suggested by the report from the Educational Policy Planning and Research Division include transport difficulties in remote rural areas, migration due to economic factors, the need to help on the family farm or to take care of younger siblings, employment, early marriage

and lack of family support.<sup>6</sup> But as mentioned, the situation is improving and dropout rates are declining.

The dropout rate among the indigenous Orang Asli of Peninsular Malaysia, once very high, has declined to very low levels, possibly abetted by additional initiatives for Orang Asli including a supplementary food programme for students and their families, provision of pocket money for students and a Special Remedial Programme for Orang Asli Students.

Before 1998, dropout rates for Orang Asli children were around 30 per cent, falling to 2 per cent in 2000 and to under 1 per cent in 2004. From 2005 to 2009, there appeared to be no dropouts; instead, there was a significant increase in the cohort size of Year 6 Orang Asli students. This suggests that analysis by age cohorts may be inappropriate for them; students might be absent from school for a considerable time, but return in later grades. There is therefore need for more qualitative studies of the situation of Orang Asli children. Recent enrolments are in Table 2.4.

4. MOE/UNESCO (2004).

5. Such as MOE (2005) and EPRD (2005a; 2005b).

6. EPRD (2005a).

TABLE  
2.4

Enrolment of Orang Asli students in MOE schools, 2000–2009

Level	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Year 1	3,819	3,729	3,876	4,226	4,225	4,190	4,307	4,776	5,418	5,079
Year 2	3,817	3,775	3,827	4,354	4,545	4,537	4,315	4,088	4,371	4,500
Year 3	3,809	3,635	3,834	4,012	4,598	4,852	4,725	4,416	4,240	4,476
Year 4	3,611	3,459	3,674	3,820	4,258	4,564	4,719	4,576	4,271	4,183
Year 5	3,504	3,424	3,554	3,827	4,012	4,244	4,746	4,543	4,465	4,321
Year 6	3,144	2,849	3,333	3,368	3,726	3,853	4,099	4,392	4,411	4,431
Total primary	21,704	20,871	22,098	23,607	25,364	26,240	26,911	26,791	27,176	26,990

Note: Similarly coloured cells indicate an age cohort. Data before 2000 are unavailable.

Source: Malaysia, Department of Orang Asli Affairs, Jabatan Hal Ehwal Orang Asli (JHEOA), unpublished document.

Dropout analysis by locality shows differences between urban and rural schools. Cohort-flow analysis using 1997–2004 enrolment data suggests the dropout rate to be slightly higher for urban than rural schools.<sup>7</sup> For example, for the cohort enrolled in Year 1 in 1998, the total dropout by Year 6 in 2004 was 1.9 per cent for urban schools but 1.2 per cent for rural schools.

A significant percentage of students from rural schools, including many academically high-performing students from disadvantaged families, continue their education in urban schools, including special boarding schools. This fact is reflected in the increase in enrolment in urban schools during the transition from primary to secondary level.

At secondary level, the dropout rate for rural schools is significantly higher than for urban schools: for the year 2000 Form 1 cohort, 16.7 per cent versus 10.1 per cent (Table 2.5). Yet, as at primary level, dropout rates have been falling. That is, completion rates have been increasing, a result of policies for poverty reduction and support programmes for enhancing retention. The initiatives include a free textbook loan scheme for all students, as well as programmes directed at disadvantaged students, such as the School Milk Programme, the Supplementary Food

Programme, the Tuition Voucher Scheme and the Poor Students Trust Fund.

### Literacy rates by age group

Literacy is measured indirectly in Malaysia, with school attendance as a proxy. A more direct measure will be available from Malaysia's participation in the Programme for International Student Assessment.

The principal source for determining literacy rates is the decennial census. The 2000 census arrived at a 90 per cent literacy rate for the citizen population aged 15 years and above, and 75 per cent for the corresponding non-citizen population (Table 2.6). For the population aged 15–19 years, the rates were 99 per cent for citizens and 76 per cent for non-citizens.

For the intercensal period, literacy rates are estimated from the annual Labour Force Survey conducted by the Department of Statistics. By this survey, the population aged 15–24 years has a literacy rate of 98.5 per cent, with little interstate variation except for Labuan and Sabah (Table 2.7).

### Quality of education

Allowing for estimation errors, and taking into consideration the increase in intake rates to Year 1 at primary level, Malaysia should achieve the MDG 2 target at country level by 2015. Recognizing the variations at subnational

7. EPRD (2005c).



TABLE  
2.5

Dropout rates in rural and urban MOE schools, 1997–2004 (%)

Rural	1998	1999	2000	2001	2002	2003	2004
Years 1–2	-0.7	-1.1	0.4	-0.7	-0.6	-0.1	0.6
Years 2–3	0.3	-0.2	0.7	-0.3	-0.2	0.6	0.3
Years 3–4	-0.6	-1.5	-0.1	-1.2	-0.5	-0.2	-0.1
Years 4–5	0.4	0.0	-0.2	-0.8	-0.8	-0.1	-0.2
Years 5–6	-2.2	-1.7	-1.5	-2.1	-2.2	-1.4	-0.8
<b>% of total loss at primary level (rural)</b>					<b>-3.9</b>	<b>-3.7</b>	<b>-1.2</b>
Forms 1–2	-2.3	-1.0	-2.4	-3.1	-2.2	-1.1	-1.1
Forms 2–3	-4.4	-3.2	-4.4	-3.3	-3.2	-2.4	-1.7
Forms 3–4	-12.8	-10.1	-11.9	-9.4	-9.7	-7.5	-6.7
Forms 4–5	-4.2	-4.2	-5.9	-5.0	-5.8	-4.4	-4.1
<b>% of total loss at secondary level (rural)</b>					<b>-19.3</b>	<b>-18.5</b>	<b>-16.7</b>
Urban	1998	1999	2000	2001	2002	2003	2004
Years 1–2	-1.2	-1.6	-0.1	-0.5	-1.3	-2.5	-0.5
Years 2–3	-0.5	-0.9	-0.4	-0.4	-1.2	0.3	-0.3
Years 3–4	-1.2	-3.5	-0.8	-1.6	-0.9	0.1	-0.2
Years 4–5	0.7	0.2	1.6	-0.5	-1.3	-0.1	-0.5
Years 5–6	-1.2	-2.0	-0.8	-1.2	-1.3	0.0	-0.4
<b>% of total loss at primary level (urban)</b>					<b>-4.7</b>	<b>-4.8</b>	<b>-1.9</b>
Forms 1–2	-2.4	-2.7	-2.0	-2.6	-2.1	-2.3	-1.5
Forms 2–3	-2.5	-4.1	-2.8	-2.3	-2.2	-2.1	-1.7
Forms 3–4	-5.6	-4.4	-4.1	-3.5	-3.6	-2.6	-1.8
Forms 4–5	-4.3	-4.0	-3.3	-4.0	-4.2	-3.6	-3.1
<b>% of total loss at secondary level (urban)</b>					<b>-12.6</b>	<b>-11.1</b>	<b>-10.1</b>

Note: Data do not cover students in non-MOE schools such as private schools, People's Trust Council Junior Science College, Royal Military College and state religious schools. About 7–10 per cent of students continue their schooling outside MOE schools after Year 6. Analysis did not include enrolment in special education classes in regular schools; similarly coloured cells indicate a cohort at the respective levels of education.

Source: Malaysia, Ministry of Education, Educational Policy Planning and Research Division, Education Management Information System database.

level, Malaysia is continually developing new initiatives to reach out to remaining pockets, whether by area, ethnicity or income level.

The main challenge is thus the quality of education, particularly given the country's ambitions to become a developed and high-income nation.

Malaysia already provides high-quality education, as seen in such indicators as the pupil–teacher ratio, proportion of trained teachers and average class size. The standardized national public examinations register a

satisfactory level of achievement, with the majority of candidates meeting a minimum competency. Still, these results suggest significant room for improvement to arrive at competencies competitive with the region's high-performing economies.

### Primary School Achievement Test

Figure 2.7 shows the subject results, over time, of the Primary School Achievement Test (Ujian Penilaian Sekolah Rendah or UPSR), taken after six years of primary school.

**TABLE 2.6** Literacy rates, 2000 (%)

Age group	Citizen	Non-citizen
10 and above	91.0	74.7
15 and above	89.7	75.2
15–19	98.6	75.9
20–24	98.1	82.4
25–29	97.5	80.0
30–34	96.1	76.5
35–39	94.5	72.8
40–44	92.0	69.8
45–49	89.3	67.7
50–54	83.1	63.1
55–59	74.4	61.1
60–64	63.0	53.7

Note: Literacy rates were proxy data, which were estimated based on percentage of population who have ever attended school.

Source: Malaysia, Department of Statistics, Population and Housing Census 2000.

UPSR subject results were quite stable from 2001 to 2009. The percentage of passes in Bahasa Malaysia in the national schools was close to 90 per cent. Performance in

Bahasa Malaysia and English varied according to the type of school. Therefore, comparison between the national schools (SK) and national-type schools (for Chinese, SJKC, and for Tamils, SJKT) must consider differences in the competency levels tested. With Bahasa Malaysia as the medium of instruction in MOE schools at secondary level, students from the SJKC and SJKT who fail to achieve the minimum Bahasa Malaysia competency are routed through a transition year in secondary school. Students performed somewhat worse in mathematics and science, and about 85 per cent of students met the minimum standard of competency. In all subjects, girls consistently performed better than boys.

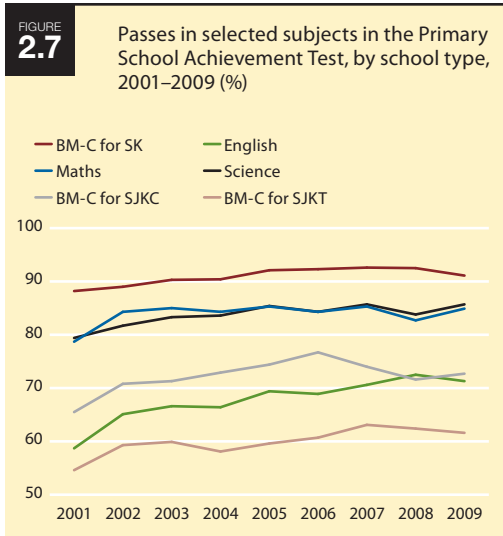
At the UPSR level, a full pass requires meeting the minimum standard of competency in five subjects – comprehension and writing in the language of instruction, writing in that language, English, mathematics and science. About 60 per cent of students obtained a full pass, with significant variations

**TABLE 2.7** Literacy rate by state, 15–24-year-olds, 2000–2009

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Malaysia	98.2	98.4	98.2	98.3	98.3	98.4	98.4	98.5	98.4	98.5
Johor	98.7	98.7	99.1	99.2	99.2	98.9	99.1	99.2	99.3	99.4
Kedah	98.9	99.5	98.6	99.2	98.9	99.4	99.2	99.2	99.3	99.4
Kelantan	98.3	99.0	98.4	98.8	98.9	98.9	98.7	98.9	98.9	98.9
Melaka	98.8	99.2	99.1	99.2	99.2	99.5	99.0	99.1	99.5	99.3
Negeri Sembilan	98.6	98.4	98.4	98.5	98.9	98.8	98.7	99.1	99.2	99.3
Pahang	98.4	97.7	98.0	97.8	97.7	97.0	98.5	97.6	98.5	98.3
Perak	98.3	98.5	98.7	98.4	98.6	99.0	98.6	99.2	99.4	99.2
Perlis	99.5	98.6	99.1	98.5	99.4	99.5	99.4	99.2	99.4	99.4
Pulau Pinang	99.6	99.5	99.1	99.1	99.0	99.1	99.4	99.3	99.4	99.6
Sabah	94.5	94.9	95.2	94.3	94.5	95.1	95.1	95.0	93.7	93.4
Sarawak	97.6	97.9	97.4	97.8	98.2	98.1	98.0	98.3	98.3	99.0
Selangor <sup>a</sup>	99.0	99.2	98.7	99.4	99.2	99.1	99.2	99.3	99.4	99.4
Terengganu	98.9	99.2	99.5	98.8	99.2	98.9	99.4	99.1	99.3	99.6
WP Kuala Lumpur	99.3	99.4	99.6	99.6	99.1	99.5	99.5	99.5	99.7	99.8
WP Labuan	95.1	95.0	94.2	97.2	91.5	94.4	92.9	90.2	88.6	90.4

a. Putrajaya, declared a federal territory in February 2001, is included as part of Selangor.

Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

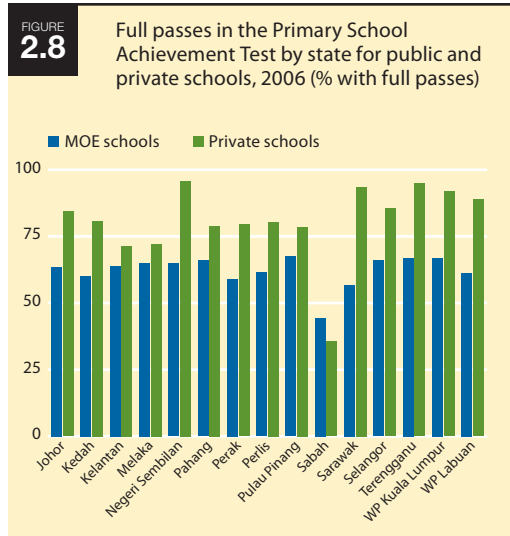


Note: SK = National schools; SJKC = Chinese national-type schools; SJKT = Tamil national-type schools.  
Source: Malaysia, Ministry of Education, Examination Syndicate, unpublished report, 2001–2009.

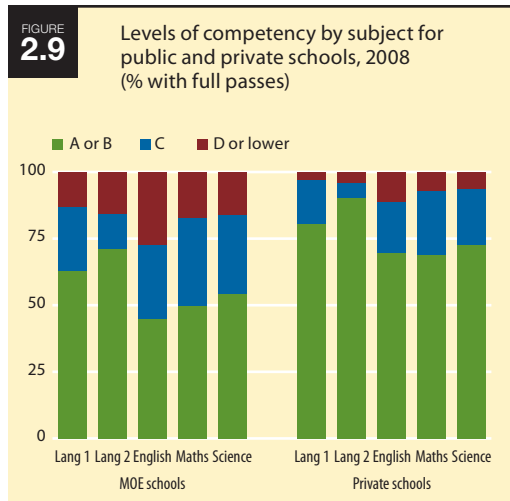
by state and type of school (MOE or private) – students at private schools performed much better (Figure 2.8). Private schools had about 7,000 students in 2006, compared with more than half a million in MOE schools. The point is that it is highly probable that students in private schools come from higher socio-economic backgrounds and perform better than students from lower socio-economic backgrounds. The role of public schools, an important avenue for social mobility, is to counter some of this bias.

This gap is even clearer at subject level. Taking an A or B as a target achievement, private and public schools showed around a 20 percentage point gap across all subjects in 2008 (Figure 2.9).

This suggestion of socio-economic disadvantage appears when one compares the percentage of full passes by state with the incidence of poverty by state, weighted by the proportion of the rural state population (Figure 2.10). A study of states with a higher incidence of poverty but a higher rate of full passes could help in understanding why they performed better – and similarly for states with a lower incidence of poverty but a lower rate of full passes.



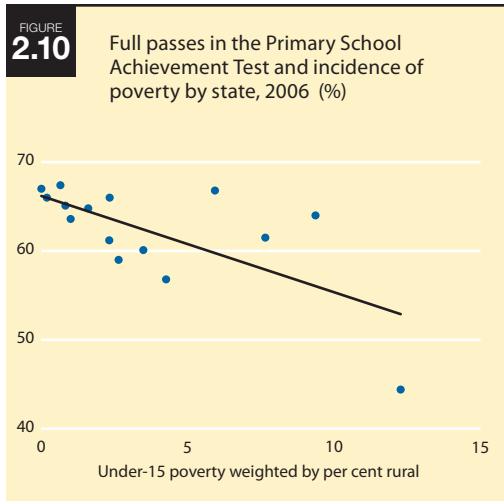
Source: Malaysia, Department of Statistics, Social Statistics Bulletin, Malaysia, 2007.



Note: Lang 1 = Comprehension (national language); Lang 2 = Written (national language). About 500,000 candidates were from MOE schools, and only about 7,000 from private schools.  
Source: Malaysia, Department of Statistics, Social Statistics Bulletin, Malaysia, 2008.

### Lower Secondary Assessment

Performance at the Lower Secondary Assessment (Penilaian Menengah Rendah or PMR), which is taken after nine years of primary and secondary education, parallels the Primary School Achievement Test, with over 60 per cent of students achieving a pass in all subjects they took, and with over 80 per cent passes in every subject other than English (Figure 2.11). The results for science and,



Source: Malaysia, Ministry of Education, Examination Syndicate, unpublished report, 2001–2009.

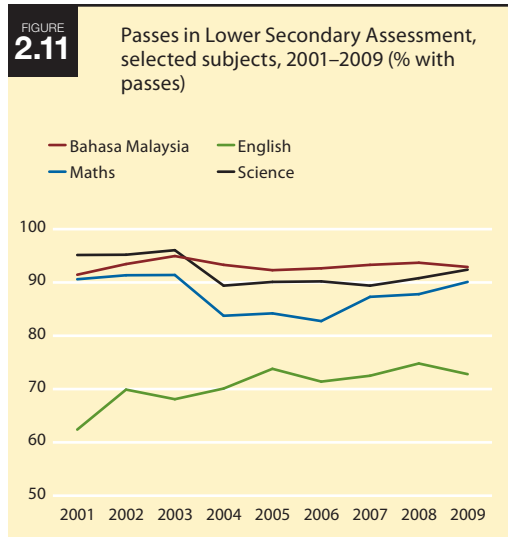
particularly, mathematics dropped significantly in 2004, but have since largely recovered.

As in primary education, girls outperformed boys, with at least a 5 percentage point difference in the pass rate. Of greater concern, however, is that the percentage receiving a D, the minimum competency level, is high relative to other grades (Figure 2.12).

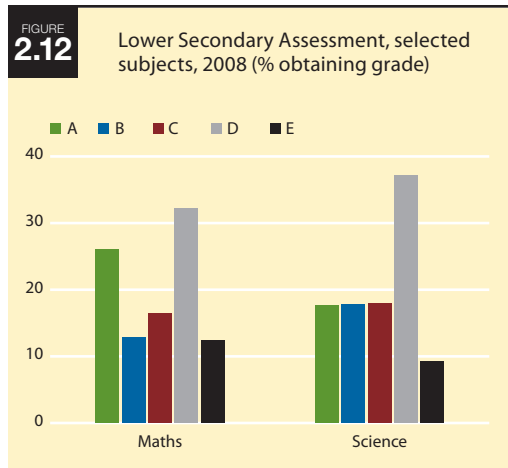
### Trends in International Mathematics and Science Study

These findings correspond with the performance of Malaysian eighth graders in TIMSS, conducted once every four years. TIMSS has benchmarked the distribution of scores at four levels – low, intermediate, high and advanced. For mathematics, these benchmarks are characterized as:

- *Low:* Students have some knowledge of whole numbers and decimals, operations and basic graphs.
- *Intermediate:* Students can apply basic mathematical knowledge in straightforward situations.
- *High:* Students can apply their understanding and knowledge in a variety of relatively complex situations.
- *Advanced:* Students can organize and draw conclusions from information, make generalizations and solve non-routine



Source: Malaysia, Ministry of Education, Examination Syndicate, unpublished report, 2001–2009.



Source: Malaysia, Department of Statistics, Social Statistics Bulletin, Malaysia, 2009; Malaysia, Ministry of Education, Examination Syndicate.

problems, including deriving and using data from several sources to solve multi-step problems.

Malaysia is well above the international median at the low, intermediate and high benchmarks, and at that median at the advanced level. The Asian region has a clear gap in the distribution of achievement between the first-tier Asian economies represented by the Republic of Korea, Singapore and Taiwan, China; and the second-tier countries represented by Indonesia, Malaysia and Thailand. Malaysia

may be ahead of Indonesia and Thailand, but is far behind those in the first tier – the regional competitors with which it seeks to close the gap.

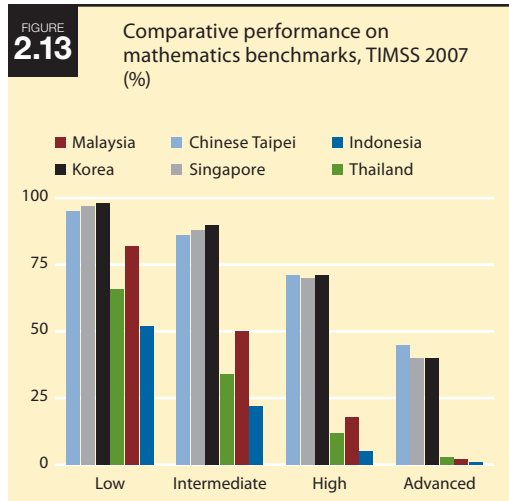
For the mathematics benchmarks in TIMSS 2007, fewer than 20 per cent of Malaysian students achieved the high benchmark and about 50 per cent achieved the intermediate benchmark, compared with 70 per cent and 85–90 per cent for the first-tier economies (Figure 2.13). At the other end of the scale, only around 80 per cent of Malaysian students hit the low benchmark. (The picture is similar for the science benchmarks.)

Malaysian students' performance had also declined at all levels from 1999 to 2007 (Figure 2.14). This was partly because some of the cognitive domain specifications tested in TIMSS 2007 had not been covered in Malaysia's mathematics curriculum. Nevertheless, the TIMSS 2007 mathematics and science results need to be further analysed, as they may suggest some obstacle to Malaysia's ability to realize its ambitions of becoming a high-income nation.

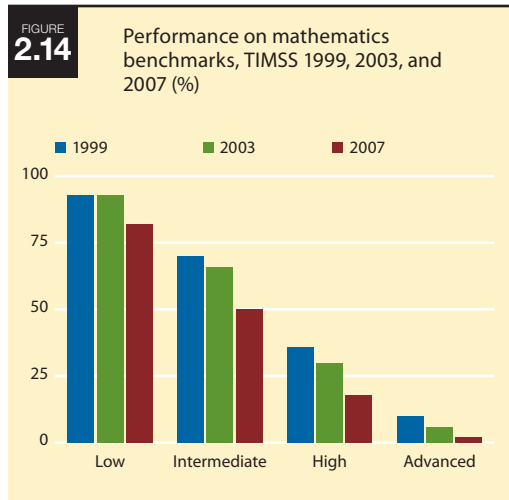
An analysis of the TIMSS data set might provide some pointers to the determinants of performance and assist in evaluating previous initiatives, for example, to put computers in schools, or even the language of instruction for mathematics and science. In addition, the Government should consider submitting additional questionnaires on matters of specific interest to the country in the next round of TIMSS to take advantage of this internationally comparable study. This would assist in formulating policies and programmes.

## The way forward

Although Malaysia is progressing well towards universal primary and secondary education as reflected in participation, completion and literacy rates, the issues and challenges discussed here need to be addressed if the target of universal primary education is to be achieved by 2015. More important,



Source: I.V.S. Mullis and others 2008.



Source: I.V.S. Mullis and others 2008.

efforts to improve the quality of education – to meet the aspirations of the country to become a fully developed nation – need to be intensified.

Malaysia is approaching the MDG 2 target at country level, but it needs further initiatives in monitoring achievement rates, both at a disaggregated level and among non-MOE schools, and in upgrading data on non-schooling children. Although some of these data may already be available and require only additional analysis, this weakness leads to uncertainties about participation and completion rates. Recommended approaches to obtain comprehensive data are as follows.

### Collecting data for non-MOE schools

Comprehensive enrolment data by level, gender and state for the non-MOE systems must be obtained. They have to include enrolment in unregistered schools, vocational institutions and institutions for children with special needs, such as community rehabilitation centres for the handicapped. It is strongly recommended that the Education Management Information System, which gathers and manages data for all MOE schools, also be used for non-MOE schools to ensure the comprehensive collection of enrolment data. Thus non-MOE data should also be collected and managed by the EPRD. Rules and regulations can be applied by the Private Education Division, MOE, such that non-compliance with this system will affect licensing.

Nevertheless, these lacunae should be kept in perspective: aggregate enrolment at primary level is above 96 per cent, while the aggregate completion rate is around 99 per cent (slightly higher among girls than boys). Still, the estimated 4 per cent of primary school age children not attending school may amount to 120,000 children. Moreover, at the disaggregated level, both enrolment and completion rates may be substantially lower, especially in regions and districts with higher poverty rates.

### Reaching non-schooling children

The issue of non-schooling children has to be addressed. One possible instrument for improved their tracking is the current register of the poor and vulnerable, e-Kasih. In addition, alternatives to formal schooling, such as distance education and home schooling, should be expanded.

In a 2009 EPRD study on children without official identification documents, almost

44,000 school-age children who had never attended school were located.<sup>8</sup> The majority were children of refugees, asylum seekers, foreign workers and illegal immigrants, but more than 5,000 were citizens, mainly Orang Asli and Penan, as well as orphans and children from poor families. The 2009 study made several recommendations to ensure that undocumented children can receive an education. It is also vital to have programmes for education well coordinated with programmes for the poor.

In 2010, the EPRD and UNICEF Malaysia were conducting a study, "Reaching the Unreached", on non-schooling children. The aim is to create a database of school dropouts and non-schooling children, to examine contributory factors and to evaluate the effectiveness of current interventions.

### Tracking dropout rates

Another huge challenge is the dropout rate in the transition from primary to secondary school, affecting about 3.5–4.5 per cent, or some 17,000 children. In addition, dropout rates at secondary level are still high in some states. Dropout tracking should therefore be enhanced to aid design of evidence-based programmes for better retention.

But the principal challenge is how to improve outcomes as measured by standardized tests, especially since outcomes are related, at least in part, to socio-economic status. This challenge has consequences for the transmission of inequality and poverty – and for economic and human development. So the reasons for the sharp fall in TIMSS outcomes should be investigated and analysed. Judicious intervention through, say, community-based resource centres may be one avenue to consider.

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8. MOE (2009).

## Annex 2.1

TABLE  
A2.1

MDG 2 targets and indicators

Target	Indicator	Definition
<b>Target 2A:</b> Ensure that, by 2015, children everywhere, boys and girls, will be able to complete a full course of primary schooling	<b>2.1</b> Net enrolment ratio in primary education	<p>As Malaysia practises a system of automatic promotion, the net enrolment ratio is equal to the participation rate. The participation rate is the percentage of the relevant population attending school. The formula is:</p> $\text{Participation rate (\%)} = \frac{\text{Total enrolment in school}}{\text{Total school age population}} \times 100$ <p>For primary school, the enrolment in question is primary school enrolment while the school-age population are children between 6+ and 11+. For secondary school, it is secondary school enrolment and the school-age population are children between 12+ and 16+.</p> <p>The school-age population is estimated from the population census. Generally, errors in the estimates become larger the further out from the population census year. As estimates are based on adding births and subtracting deaths, areas of net out-migration can appear to have reducing participation rates, while areas of net in-migration can appear to have increasing participation rates, even more than 100 per cent.</p>
	<b>2.2</b> Proportion of pupils starting grade 1 who reach last grade of primary	<p>This is the completion rate, or the percentage of students enrolled in the first year of a particular education level who complete their education at that level. The completion rate in primary education is the percentage of Primary 1 students who complete primary education six years later. For secondary education, it is the percentage of Form 1 students who complete their secondary education five years later. The formula is:</p> $\text{Completion rate (\%)} = \frac{\text{Total enrolment in last grade in current year}}{\text{Total enrolment in first grade when they entered}} \times 100$ <p>Disaggregated data on completion rates and dropout rates by level and gender do not reflect national figures and should be treated with caution. While dropout rates from MOE schools are useful to show patterns and to draw comparisons, students leaving MOE schools to join non-MOE schools are considered dropouts from MOE schools. But they may have joined private schools, not fully monitored by MOE. Thus, dropouts from MOE schools do not necessarily mean dropouts from the education system.</p>
	<b>2.3</b> Literacy rate of 15–24-year-olds, women and men	<p>The literacy rate refers to the percentage of the population who are able to read and write a short simple statement with understanding. Malaysia uses school attendance as a proxy. Thus,</p> $\text{Literacy rate (\%)} = \text{Percentage of population who had ever attended school}$ <p>This Report uses data from the 2000 population census. Estimates, on the same basis, are available from the annual Labour Force Survey.</p>

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# MDG 3

## Promote gender equality and empower women



### MDG 3 has one target for 2015:

- Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.

This 2010 assessment of Malaysia's achievements under MDG 3 includes four indicators. The first is the ratio of girls to boys in primary, secondary and tertiary education. The second is gender wage parity and the proportion of women at different levels of the occupational structure. The third is a natural extension of MDG 3, namely, the proportion of women in decision-making positions in both the public and private sector. The fourth (not an "official" indicator but still crucial) is the reported incidence of violence against women as measured by two sub-indicators: domestic violence and rape.

Although MDG 3 focuses on women, it should be read in conjunction with other MDGs with women-related issues, including MDG 4 (reduce child mortality), MDG 5 (improve maternal health) and MDG 6 (combat HIV/AIDS, malaria and other diseases).

The Malaysian Gender Gap Index, developed with the UNDP country office, recorded an improvement in gender inequality from 0.34 in 1980 to 0.25 in 2009.<sup>1</sup> However, the improvement has not come equally from all four dimensions of the index: the indexes for education and health registered very low inequality of 0.041 and 0.121, respectively, the index for economic participation moderate inequality of 0.246 and the index for empowerment of women high inequality of 0.578.

Although there have been improvements at national level, Malaysia has slipped relative

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1. This index ranges from 0 to 1, with 0 indicating no gender inequality and 1 total gender inequality. See UNDP (2007). The most recent data from the Ministry of Women, Family and Community Development indicate that the score has been maintained (MWFCD 2009).

to other countries globally. Its ranking in the Global Gender Gap Index fell from 72 in 2006 to 92 in 2007 and to 98 in 2010.<sup>2</sup> Its ranking has also been sliding in the UNDP's Human Development Index (61 in 2005 to 66 in 2009), Gender-related Development Index (50 to 88) and Gender Empowerment Measure (51 to 68).<sup>3</sup>

The Government of Malaysia has made several commitments to promoting gender equality and women's empowerment. It has ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), though with several reservations, some of which have yet to be withdrawn.<sup>4</sup> It has also ratified International Labour Organization Convention No. 100, the Equal Remuneration Convention. The Government adopted a National Policy on Women in 1989. In 2001, it amended Article 8(2) of the Constitution to prohibit any form of gender discrimination, and in August 2009, it launched the second National Policy on Women and the Women's Development Action Plan. It also gave its commitment to achieve the MDGs by 2015.

## Gender equality in education

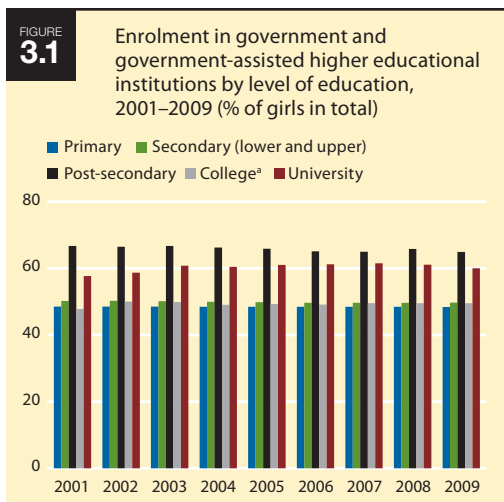
### Ratio of girls to boys in primary, secondary and tertiary education

Children in Malaysia attend primary school in their seventh year. At primary level, the enrolment ratio of girls is almost equal to boys (Figure 3.1; the previous chapter discusses this in further detail). But when one accounts for the underlying population sex ratio for the relevant age group, there is gender parity at that level. In secondary school, girls outnumber boys, a

2. UNCT (2007).

3. The GDI and GEM have been subject to numerous criticisms. For the most recent, see Stanton (2007) and Klasen and Schüler (2009).

4. Malaysia acceded to CEDAW in 1995. See also Malaysia's submission to the 35th Session of the CEDAW Committee, <http://www.un.org/womenwatch/daw/cedaw/35sess>.



a. Polytechnics, institutes of teacher education, community colleges and Tunku Abdul Rahman College.

Source: Ministry of Education and Ministry of Higher Education, Malaysia (2010).

consequence of boys' higher dropout rate. At post-secondary level, the ratio of females to males is almost 1. This is also the case at tertiary college level. At university level, girls outnumber boys, a consequence of their better performance in public examinations determining admission to university.

In 2009, female enrolment at different levels of higher education in public institutions was higher than among males, except at the doctoral level. At private institutions, male enrolment was higher at the certificate, masters and doctoral levels (Table 3.1).

Gender gaps exist in the selection of courses. Women dominate in the arts and sciences but make up only 31 per cent of students in the technical and engineering courses at tertiary level (Table 3.2). This gap is even wider in private institutions.

In brief, Malaysia has achieved gender parity at primary, secondary and post-secondary levels of education and greater than parity at university level. At tertiary level, however, a gender gap remains in technical courses, probably a consequence of gender stereotypes and the labour market for technical personnel.

In 2008, the distribution of the 15–64 working age population by educational attainment

TABLE  
3.1

Gender composition of students in higher education by level, 2009 (enrolment)

Type of institution	Proportion of students who are female						Total
	Certificate	Diploma	Degree	Post-graduate diploma	Masters	PhD	
Public	59.3	59.1	62.5	74.4	54.2	39.4	60.3
Private	46.2	57.9	50.5	51.9	43.2	35.8	52.4

Source: Ministry of Higher Education.

TABLE  
3.2

Proportion of females enrolled at public and private institutions of higher learning by area of specialization, 2009

Type of higher learning institution	Arts	Sciences	Technical	Total
Public	67.3	63.1	38.7	60.3
Private	56.0	60.0	21.7	52.4
Both	61.1	61.3	31.4	56.1

Source: Ministry of Higher Education.

still had a higher proportion of women than men with no formal education, and a smaller proportion with a secondary education.

### Ratio of literate women to men

An important outcome of the investment to achieve universal primary education is closing the gender gap in literacy among youth aged 15–24 in all states (Figure 3.2). This has been uniform across all states.

## Gender equality in employment

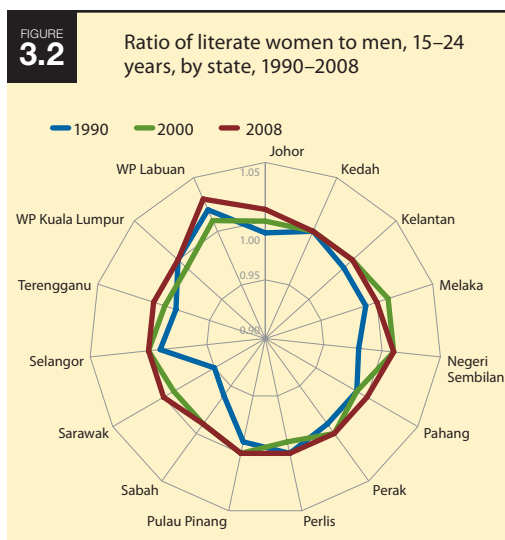
### Labour force participation

Despite increased participation at all levels of education, the participation of women in the labour force has not changed much since the 1980s (Table 3.3). Further disaggregation by age group shows a significant increase in such age groups, though, such as 25–29, 30–34 and 35–39 years. The relatively low participation rate of women for particular age groups is an outcome of gender roles in unpaid care work in the home (as seen in the decline in the labour force participation rate at around the time of marriage and childbearing) and other social norms that restrict their participation.

The labour force participation rate of women in 2008 was generally lower in the less developed states and higher in the more developed, with a 14 percentage point spread. Rural men have a higher labour force participation rate than urban men. The reverse holds for women. Moreover, there is a downward trend in the rate for rural women. The female-to-male ratio in urban areas is increasing, albeit slowly, but is declining in rural areas (Figure 3.3).

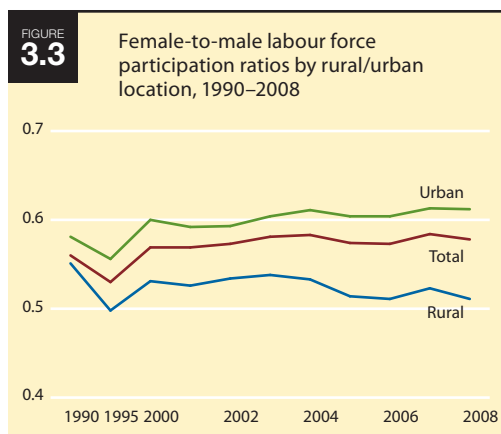
The decline in rural women's rates is likely a combined result of higher school enrolment and retention as well as changing attitudes towards farm work. The latter can result in responses in surveys that do not reflect the actual work women do. For example, a woman may say she is not employed, when, in fact, she is engaged in farm work. At the same time, younger women with some basic education do not want to engage in farm work and may opt to work in the home, although this raises their dependency on their husbands for their livelihood. They may also be losing out to foreign workers in agricultural work.

By ethnicity, Other Bumiputera men had the highest labour force participation rate



(90 per cent) in 1990, compared with Malays (85 per cent), Chinese (83 per cent) and Indians (84 per cent). In 2008, Other Bumiputera men still showed the highest rate (82 per cent), followed by Chinese (79 per cent), Indians (78 per cent) and Malays (76 per cent). The broad decline is largely a function of higher school retention and transition rates, while the higher rate among Other Bumiputera is due to their lower school participation and transition rates. The higher school retention and transition rates are registered in declining labour force participation for the 15–24-year age group.

The situation of Other Bumiputera women has reversed, however. In 1990, they had the highest labour force participation rate at 57 per cent, followed by Indians (51 per cent),



Chinese (48 per cent) and Malays (46 per cent). By 2008, the rate for Other Bumiputera women was the lowest at 43 per cent, preceded by Chinese (47 per cent), Indians (44 per cent) and Malays (44 per cent). The decline among Other Bumiputera women is likely due to a decline in agricultural activity consequent on the greater participation of men in wage work in the timber and plantation industry, resulting in smaller subsistence farms and devaluation of work on such farms as not actually work. The decline also stems from the higher school retention rates of girls and consequent shifts in attitudes towards farm work. Finally, Other Bumiputera also experienced a significant rural–urban migration, in the course of which women were more likely to become primarily engaged in within-home care than in paid employment. The net result of these factors has been to erode the economic independence of

**TABLE 3.3** Labour force participation rate by gender, 1980–2008

	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Malaysia	64.9	66.5	64.7	65.4	64.9	64.4	65.2	64.4	63.3	63.1	63.2	62.6
Male	85.9	85.3	84.3	83.1	82.3	81.5	82.1	80.9	80.0	79.9	79.5	79.0
Female	44.1	47.8	44.7	47.2	46.8	46.7	47.7	47.2	45.9	45.8	46.4	45.7

Note: 1980 refers to the first Labour Force Survey of 1982.

Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

Other Bumiputera women, as they come to depend more on the incomes of men.

The decline among Indian women is likely the result of the economic transformation of the Indian community from an agricultural to a non-agricultural base.

The gender gap by ethnicity – defined as the percentage point difference in rates – has increased for Other Bumiputera and Indians but declined for other ethnic groups (Figure 3.4). As seen in the next section, this gap is partly a function of lower educational attainment.

### Distribution of labour force by educational attainment

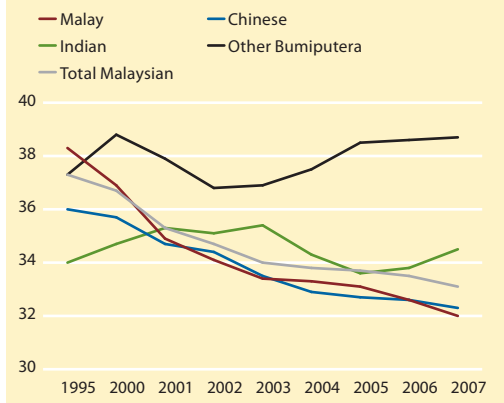
In line with higher educational attainment, the distribution of the labour force by educational attainment – women and men – has seen a progressive decrease in the proportion of the labour force with primary education or less and an increase in the proportion with secondary and tertiary education (Figure 3.5).

The numbers of women and men without formal education in the labour force are almost equal, even though women have a much lower labour force participation rate. This rough equality is an outcome of the historical legacy leaving a much higher proportion of women with no formal education. But it is also likely a function of need. Although women make up 60 per cent of those in tertiary education, they constitute under half the labour force in that educational category. Many fewer women than men have primary and secondary education in the labour force, likely a combination of the relative costs of childcare versus the returns to employment. These considerations should be validated with access to the full data set of the labour force survey.

### Women outside the labour force

More than half of women in the 15–64 working age group are outside the labour force (Figure 3.6). Around 70 per cent of these women cite housework as the main reason. A distant second reason, at 25 per cent, is schooling.

**FIGURE 3.4** Gender gap in labour force participation by ethnicity, 1995–2007 (percentage points)



Note: Three-year moving averages from 2000 to 2008.

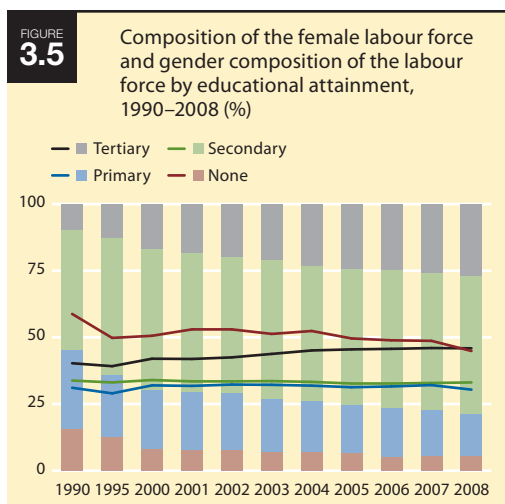
Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

If the 15–24 age group were removed from consideration, housework would become the overriding reason women are not in the labour force.

The highest incidence of non-labour force participation is among women with only primary or no formal education (see Figure 3.6). Women with lower levels of education are most likely to be married to men with lower incomes and these households could do with the extra income if the women could be engaged in wage work. It is probable they cannot afford to engage in paid employment because of the lack of affordable childcare. Although the Government has a policy to promote childcare centres at the place of work, it has achieved very limited success in getting employers to adopt it (see below).

### Labour force participation by gender and age group

Women's participation in paid employment has seen some improvement, though a sharp contrast with men remains: women's labour force participation and employment over the life cycle show relatively high rates in young adulthood before marriage and childbearing, followed by a significant decline in the childbearing and childrearing years.

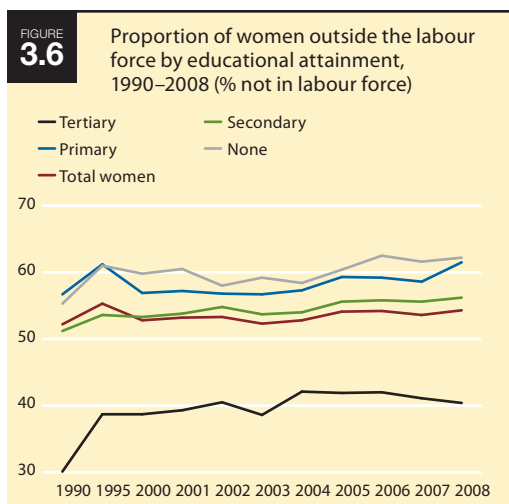


Note: Bars refer to the composition of female labour force; lines refer to the gender composition of the labour force.

Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

The figures for men and women in the age groups of 20–24, 25–29 and 30–34 years show an increase in men's participation and a stabilizing of their participation rates (Table 3.4). The pattern is reversed for women, with a substantial decline of around 5 percentage points as they go from 25–29 to 30–34, suggesting that more than 10 per cent of women drop out of the labour force at that period. Women's age-cohort labour force participation profile shows a single peak, at 20–24, shifting upward to 25–29 from 2001; men's age-cohort labour force participation profile shows a high plateau. The shift in the peak for women from 20–24 to 25–29 is likely the outcome of increased participation in tertiary education and delayed marriage. The exit from the workforce for women from the 25–29 to 30–34 and the 35–39 age groups is most likely linked to marriage, childbearing and childrearing.

To help working women or those who want to re-enter the labour force, it is important that there are good and affordable childcare facilities in the country. Not many departments in the public sector offer such facilities, while private childcare centres and nurseries are expensive. In early 2007, the Government provided a subsidy of RM180 per child to civil



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

servants whose monthly household income was below RM2,000; this was then extended in 2009 to those whose monthly household income was below RM3,000. Although the Government grants a 10 per cent corporation tax exemption for employers to establish childcare centres, few have taken up this offer. As of February 2007, only 1,831 registered childcare centres had been established, 86 of them in the state sector and only 26 in the private sector. Over 500,000 companies are registered with the Social Security Authorities.<sup>5</sup>

### Distribution of employed persons by occupation

The occupational composition of employed women has changed in line with the sectoral changes in the economy. Thus employment has increased in services and sales, in clerical work and as technicians and associate professionals but declined in agricultural work and as plant and machine operators and assemblers (Figure 3.7).

Some movement of women into higher paying occupations has occurred. The proportion of women legislators, senior officials and managers, professionals and technicians and associate professionals increased.

5. UNCT (2010).

TABLE  
3.4

Labour force participation rates by gender and age group, 1990, 1995 and 2000–2008 (%)

Age group	Total	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64
<b>Male</b>											
1990	85.3	47.3	90.1	97.7	98.6	98.8	98.5	97.6	93.5	72.7	62.6
1995	84.3	37.9	89.5	97.9	98.3	98.6	98.0	97.2	93.6	73.4	62.0
2000	83.0	32.1	85.2	97.5	98.5	98.6	98.2	97.8	93.3	74.0	60.9
2001	82.3	31.0	83.1	97.3	98.4	98.5	98.1	97.4	93.0	74.2	58.6
2002	81.5	28.3	81.0	97.0	98.1	98.6	98.0	96.7	93.2	73.6	60.3
2003	82.1	29.7	81.1	97.1	98.5	98.7	98.1	97.6	93.7	74.3	62.0
2004	80.9	27.7	77.9	96.2	98.3	98.2	97.8	97.3	92.4	72.5	60.0
2005	80.0	24.6	77.1	96.6	98.1	98.3	97.9	96.7	92.6	69.5	54.3
2006	79.9	23.3	77.2	96.5	97.6	98.5	98.2	96.9	91.7	70.3	56.8
2007	79.5	22.8	76.6	95.7	97.8	98.1	97.8	96.8	91.7	70.8	54.5
2008	79.0	22.1	76.1	95.4	97.5	98.1	97.3	96.4	91.0	67.7	54.6
<b>Female</b>											
1990	47.8	33.8	63.3	53.3	50.4	48.9	50.1	50.3	43.1	33.1	27.0
1995	44.7	26.8	61.1	52.8	49.0	49.2	47.6	45.3	36.9	27.4	21.5
2000	47.2	22.1	63.1	61.2	53.5	51.0	52.1	49.3	40.2	28.3	22.1
2001	46.8	20.6	60.7	61.1	54.7	53.1	52.9	48.4	40.9	28.8	21.3
2002	46.7	19.4	59.4	62.6	54.8	52.6	52.3	50.3	40.4	29.2	21.2
2003	47.7	18.5	61.8	64.2	56.7	53.1	52.5	52.0	42.5	30.8	21.6
2004	47.2	18.0	56.8	64.1	58.1	54.2	52.3	52.1	43.6	32.4	22.0
2005	45.9	16.4	56.2	64.3	57.5	52.7	51.4	49.3	39.9	28.5	19.3
2006	45.8	14.5	56.1	65.4	58.5	52.6	50.9	48.4	40.9	27.7	19.5
2007	46.4	14.0	54.6	66.2	59.0	54.7	52.6	49.8	43.9	28.0	20.0
2008	45.7	14.6	53.4	65.5	59.2	54.1	52.4	48.2	42.1	26.8	18.1

Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

But the majority of women in the technicians and associate professionals category are in the teaching and nursing professions. Lower down the occupational ladder, women are still concentrated in low-skilled jobs and labour-intensive operations. Clerical work remains very much a female domain. Evidently, while occupational segregation by gender has declined, it is still very much a fact of life (Table 3.5).

The crude gender wage gap remains large (Table 3.6). A simple regression of wages on gender, ethnicity, location, education, work experience, industry and occupation results in a wage premium of about 28 per cent for men in 2007, the same as in 1997.

### Share of women in wage employment in non-agriculture

During 1990–2008 women increasingly left employment in agriculture (Figure 3.8). Indeed, the move predates this period, as shown in the 2005 MDG report.<sup>6</sup> The rapid growth of employment opportunities, especially for young women, in non-agriculture was the principal driver. It would be no exaggeration to say that women drove the industrialization of Malaysia.

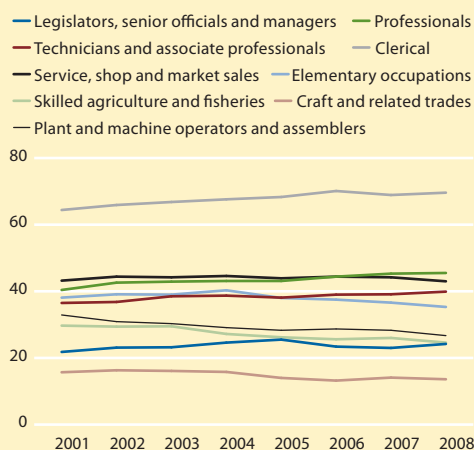
While there are interstate differentials in the proportion of women in non-agricultural

6. UNCT/EPU (2005).



FIGURE  
3.7

Proportion of women in various occupations, 2001–2008 (%)



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

TABLE  
3.5

Number of workers by occupation and sex, 2008

Occupation	Male	Female	Total
Senior officials and managers	208,439	195,665	404,104
Professionals	109,430	79,932	189,362
Technicians and associate professionals	188,317	92,533	280,850
Clerical workers	137,820	369,287	507,207
Service workers and shop and market sales workers	365,355	301,558	666,913
Skilled agricultural and fishery workers	128,173	23,569	151,742
Craft and related trade workers	79,740	16,627	96,367
Plant and machine operators and assemblers	280,813	208,287	489,100
Elementary occupations	585,454	201,341	786,795
Total	2,083,541	1,488,899	3,572,440

Source: Malaysia, Ministry of Human Resources, National Employment Return 2008.

employment, they are not large and have declined, apart from Labuan, with a small number of persons (Table 3.7).

TABLE  
3.6

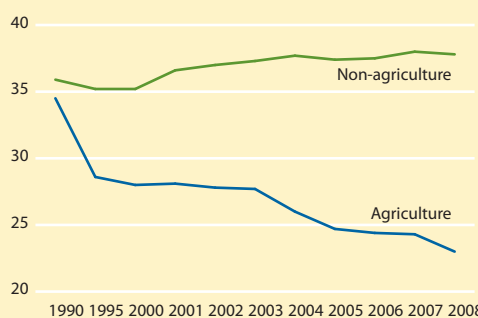
Average monthly basic wage by sex and occupation, 2008

Occupation	Male (RM)	Female (RM)	Male : female wage ratio
Senior officials and managers	4,296	2,522	1.70
Professionals	3,670	2,848	1.29
Technicians and associate professionals	2,007	1,957	1.03
Clerical workers	1,407	1,325	1.06
Service workers and shop and market sales workers	924	802	1.15
Skilled agricultural and fishery workers	730	513	1.42
Craft and related trade workers	1,081	727	1.49
Plant and machine operators and assemblers	860	623	1.38
Elementary occupations	693	561	1.24
Overall	1,473	1,239	1.19

Source: Malaysia, Ministry of Human Resources, National Employment Return 2008.

FIGURE  
3.8

Proportion of women in agriculture and non-agriculture, 1990–2008 (%)



Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

## Representation of women in government

The number of women elected to political decision-making bodies in Malaysia has increased, but only modestly. Women's representation in the elected Parliament doubled from 1990 to 1999 but has since remained at around 10 per cent. In the appointed House of



TABLE  
3.7

Share of women in wage employment in non-agriculture, 1990, 1995 and 2000–2008 (%)

State	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Malaysia	31.5	35.1	38.0	37.2	37.3	37.9	38.3	38.5	38.7	38.0	37.8
Johor	32.4	36.5	37.5	37.6	37.6	38.4	37.7	38.0	37.5	36.9	36.0
Kedah	26.3	38.1	40.0	41.4	38.6	37.9	39.6	40.1	39.4	38.0	38.3
Kelantan	28.8	31.5	32.1	30.4	32.9	34.9	33.3	32.7	34.5	36.7	37.2
Melaka	33.7	35.7	39.1	37.6	36.5	41.9	39.6	39.9	40.0	40.2	39.1
Negeri Sembilan	27.8	37.7	37.8	36.8	37.5	38.3	38.6	39.2	38.5	37.5	37.0
Pahang	28.4	28.7	33.2	33.3	36.0	33.7	34.1	35.8	35.5	37.3	36.6
Perak	29.1	34.7	37.4	37.3	37.2	37.0	37.9	38.4	38.3	38.8	38.4
Perlis	19.7	30.8	39.0	35.6	34.2	37.3	40.4	40.6	40.2	40.2	41.3
Pulau Pinang	40.4	38.1	46.0	41.6	41.7	41.5	42.0	40.6	42.1	41.0	41.7
Sabah	21.8	30.2	33.2	35.0	36.1	37.1	36.5	36.7	38.8	36.9	36.7
Sarawak	28.0	29.9	34.5	34.1	34.8	33.2	33.9	34.2	33.4	35.6	34.7
Selangor	34.6	37.6	40.0	37.2	37.2	38.7	39.7	40.1	40.6	38.8	38.6
Terengganu	25.3	30.5	31.9	31.0	32.7	33.5	34.2	34.4	34.7	36.1	36.5
Kuala Lumpur	36.9	37.2	38.4	39.9	39.6	40.2	42.6	42.0	41.7	38.9	39.4
Labuan	18.5	15.3	27.6	24.9	29.0	31.5	34.8	29.9	30.6	31.1	30.2

Source: Malaysia, Department of Statistics, Labour Force Survey Report, various years.

Senate, it increased from 18 per cent in 1990 to 33 per cent in 2004, before dropping back to 26 per cent in 2008. In the elected State Legislative Assemblies, it more than doubled from 3 per cent in 1990 to 8 per cent in 2008 (Table 3.8).

In the current cabinet only 2 ministers of 28 are female, and only 7 deputy ministers of 42 are female. Women's representation in states' cabinets is also dismal. Except for Selangor, where women make up 40 per cent, all other state cabinets have under 10 per cent female representation. Indeed, some states have no female representation. At the third tier of government – local or municipal councils – women make up less than 20 per cent of appointments.<sup>7</sup>

### Women's participation in decision-making positions

The Tenth Malaysia Plan (2011–2015) stated a policy objective of increasing the number of

women in key decision-making positions. This is in line with the CEDAW Committee's recommendation to establish concrete goals and timetables to accelerate the increase in the representation of women in elected and appointed bodies in all areas of public life.<sup>8</sup> There has been progress in meeting this target in the public service (Table 3.9 and Figure 3.9).

Women hold almost two thirds of public service positions and many women occupy middle-management positions. The glass ceiling remains pretty intact, though. Even though women's representation in top management posts has increased from 6.9 per cent in 1995 to 32.3 per cent in 2010, efforts will be continuously undertaken by the Government to increase their participation in decision-making positions in the public sector. The recent initiatives at government reform, such as the Government Transformation Programme, represent important steps forward, recognizing the popular desire to see better service delivery, more

7. UNCT (2010).

8. CEDAW, para 18.

TABLE  
3.8

## Representation of women and men in political life, 1990–2008

	1990	1995	1999	2004	2008
<b>Elected members of Parliament</b>					
Women	9	13	20	21	23
Men	162	166	173	198	199
Women as proportion of total (%)	5.3	7.3	10.4	9.6	10.4
<b>Appointed members of Senate</b>					
Women	10	11	14	19	16
Men	45	57	48	38	44
Women as proportion of total (%)	18.2	16.2	22.6	33.3	26.7
<b>Elected members of state legislative assemblies</b>					
Women	15	24	28	40	46
Men	428	474	476	536	530
Women as proportion of total (%)	3.4	4.8	5.6	6.9	8.0

Source: Malaysia, Ministry of Women, Family and Community Development, Statistics on Women, Family and Community, 2008; Malaysia, Ministry of Women, Family and Community Development, Statistics on Women, Family and Community, 2003.

TABLE  
3.9

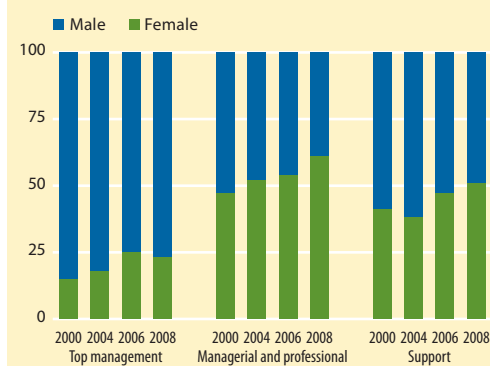
## Proportion of public service employees by category and gender, selected years (%)

Position	2000		2004		2006		2008	
	Male	Female	Male	Female	Male	Female	Male	Female
Top management	85	15	81	19	75	25	77.2	22.8
Managerial and professional	53	47	48	52	46	54	39	61
Support	59	41	62	38	53	47	49	51
<b>Total</b>	<b>56</b>	<b>44</b>	<b>55</b>	<b>45</b>	<b>50</b>	<b>50</b>	<b>44</b>	<b>56</b>

Source: Malaysia, Public Services Department.

FIGURE  
3.9

## Public service staff by position and gender, 2000–2008 (%)



Source: Public Services Department.

transparency and communication, and appropriate incentives and advancement without discrimination or exclusion. A vision of equality between men and women is at the core of this structural and attitudinal transformation.

The corporate sector has seen a decline in the share of women as directors, the slight uptick in 2008 notwithstanding. In contrast, the proportion of women in top management has grown significantly, especially in recent years (Table 3.10).

Even so, women still constitute a small proportion of those in corporate decision-making, given that those with tertiary qualifications account for almost half the tertiary-educated

TABLE  
3.10

Proportion of women at decision-making level in the corporate sector (%)

Position	2001	2002	2003	2004	2005	2006	2007	2008
Board of directors	10.1	10.5	10.1	9.9	10.2	5.9	5.3	6.1
Top management	12.0	12.1	12.3	13.5	13.9	14.3	24.0	26.2

Note: Top management includes president, vice-president, managing director, chief executive officer, chief operating officer, senior general manager and general manager.

Source: Malaysia, Ministry of Women, Family and Community Development, Statistics on Women, Family and Social Welfare, 2008.

workforce. In addition, the growth in their numbers has been slow. In 2008, only 6 per cent of corporate directors and only seven of the chief executive officers of the largest 100 companies listed on the Kuala Lumpur Stock Exchange were women. These shortfalls point to an obvious need for greater awareness of women's talents and of women as partners to drive change and innovation.<sup>9</sup>

## Violence against women

Malaysia has a Domestic Violence Act (1994, implemented 1996) and recently raised the

penalty on conviction for rape. Yet both crimes are on the increase (Table 3.11). The table shows reported cases, however, not the actual incidence, as it is probable that a majority of cases go unreported.

To give a better idea of trends and to facilitate interstate comparison, a three-year moving average percentage change is shown in Figure 3.10.

Recent years have seen a national increase in incidence following a period of decrease, though variations are apparent among states, with some states even reporting declines. The rate per 100,000 population in 2009 ranged from a low of 4 per 100,000 population to a

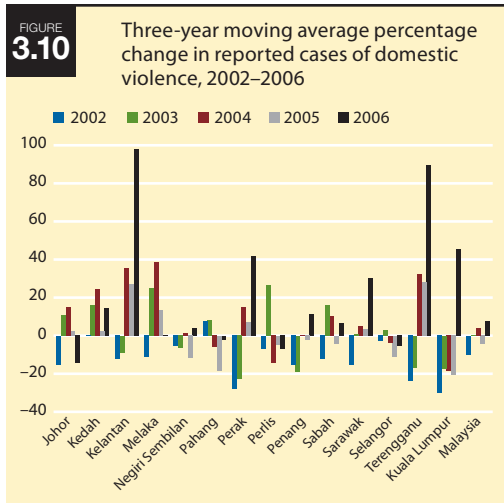
9. Merican Cheong (2010).

TABLE  
3.11

Reported domestic violence cases, 2000–2009

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Malaysia	3,468	3,107	2,755	2,555	3,101	3,093	3,264	3,756	3,769	3,643
Johor	377	379	187	234	465	320	259	315	273	231
Kedah	177	179	177	179	264	328	198	378	387	288
Kelantan	33	36	47	19	27	80	53	184	252	173
Melaka	92	56	67	68	104	159	112	106	89	62
Negeri Sembilan	349	318	242	301	262	253	206	289	252	274
Pahang	150	161	202	188	206	167	86	197	186	149
Perak	269	185	135	123	85	186	151	261	241	290
Perlis	39	27	39	32	53	21	27	46	10	54
Pulau Pinang	399	431	269	231	255	272	213	338	279	286
Sabah	102	86	85	69	124	114	56	144	218	342
Sarawak	316	203	222	201	208	254	224	416	298	340
Selangor	877	855	942	805	932	845	520	811	1102	1015
Terengganu	24	29	10	9	21	23	24	82	90	68
Kuala Lumpur	264	162	131	96	95	71	42	189	92	71

Source: 2000–2005 from Ministry of Women, Family and Community Development, Statistics on Women, Family and Social Welfare 2006; 2007 from Royal Malaysian Police (PDRM) (via Women's Aid Organisation website: <http://www.wao.org.my>); 2008 and 2009 from "Reply in Dewan Rakyat" (no Aum 185 –rujukan 2518)



Source: Ministry of Women, Family and Community Development, Statistics on Women, Family and Social Welfare 2006.

high of 27, averaging about 13. Three states had rates above 19, and two, below 7.

The pattern for reported rapes is unambiguous: it increased in all states. At the country level, reported cases trebled from around 1,200 in 2000 to around 3,600 in 2009. Again, as these are reported cases, the real occurrence is likely to be much higher. The Women’s Aid Organisation estimates that only 10 per cent of rapes are reported.<sup>10</sup>

Reported cases in 2009 translate into a rate of 12.8 per 100,000 population, putting Malaysia at the upper end of the third or the lower end of the highest quartile in the world.<sup>11</sup> Moreover, around three quarters of reported cases involve children (as defined by the Child Act and the Convention on the Rights of the Child) below the age of 18 (Table 3.12). Again, states show considerable variation. In 2009, five states had rates above 17 per 100,000 population, while two had rates below 9.

If the categories of “rape”, “incest” and “outrage of modesty” were collectively taken as representing sexual violence, the incidence rate would be 21.8 per 100,000 population (Table 3.13). This is about the Malaysian rate for “assaults” leading to serious bodily injury, not

10. <http://www.wao.org.my/research/rape.htm>.

11. Harrendorf and others (2010).

**TABLE 3.12** Reported rape cases by age of victim

Year	Below 16 years old	16–18 years old	18–25 years old	25 and above	Total
2008	1,871	636	902	—	3,409
2009	2,048	652	926	—	3,626

Source: “Reply in Dewan Rakyat” (no Aum 185 –rujukan 2518).

leading to death. If domestic violence is included, women are at greater risk of gender-based violence than the population is to “assaults”.

On this basis, gender-based violence is widespread, and needs to be recognized as a public health and development concern. The low rate of prosecution also needs to be addressed. For rape, there were only 184 prosecutions in 2008, and 162 in 2009. All cases of incest were brought to court. For outrage of modesty, prosecutions totalled 280 in 2008 and 208 in 2009.<sup>12</sup> Perpetrators of acts of violence against women can apparently commit their acts with virtual impunity, indirectly rendering them “acceptable”.

Sexual harassment in the workplace is another form of violence against women, though national data are unavailable. One study of 2000–2001 concluded that 35 per cent of 1,483 respondents from six pioneer companies had experienced one or more forms of sexual harassment in their workplace.<sup>13</sup> More women than men indicated that they had experienced sexual harassment. Despite the existence of a Code of Practice on the Prevention and Eradication of Sexual Harassment in the Workplace since 1999, sexual harassment continues to be widespread in the workplace.

### Enabling and supportive environment

The Government has committed to address gender disparities and to promote gender

12. Statistics for 2008 and 2009 from “Reply in Dewan Rakyat” (no Aum 185 –rujukan 2518).

13. Ng and others (2003).

TABLE  
3.13

Cases of violence against women, 2000–2009

Type of violence	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Domestic violence	3,468	3,107	2,755	2,555	3,101	3,093	3,264	3,756	3,769	3,643
Rape	1,217	1,386	1,431	1,479	1,760	1,931	2,431	3,098	3,409	3,626
Incest	213	246	306	254	335	295	352	360	334	385
Outrage of modesty	1,234	1,393	1,522	1,399	1,661	1,746	1,972	2,243	2,131	2,110

Source: 2000–2007 from UNCT (2010); 2008 and 2009 from "Reply in Dewan Rakyat" (no Aum 185 –rujukan 2518).

equality and women' empowerment by ratifying the principal international legal instrument to promote gender equality, CEDAW, and by participating in the relevant international forums. To strengthen this supportive environment, the Government needs to withdraw its reservations on substantive core areas of CEDAW and raise public awareness of the convention.

Key national frameworks include the Constitution, the National Policy on Women and the National Action Plan, and the Domestic Violence Act. Originally formulated in 1989, the National Policy on Women was reviewed, and a new policy was adopted in 2009 with its accompanying plan. The policy sets out the guiding principles and general strategies for planning and implementation agencies, though it does not regulate the conduct of official institutions, public authorities and officials, or private persons, organizations and enterprises. It provides guidelines and recommendations to the Government to address gender concerns within sectoral areas of responsibility and highlights various areas for immediate action.

Still, as seen earlier, a gap persists between legally guaranteed rights and their enforcement. Malaysia has indeed achieved gender equality in access to education, but women continue to face barriers to the full realization of their capabilities in the labour market, in politics, in decision-making positions and in society generally.

### The way forward

The Government acknowledges that empowering women and improving their social,

educational, economic and political status are vital for full sustainable and human development in all spheres. From an instrumental point of view, women's empowerment will provide a substantial impetus to economic growth and propel Malaysia towards its goal of becoming a developed nation. It will also contribute greatly to achieving other MDGs. But above and beyond that, gender equality and the empowerment of women are human rights and, in themselves, have to be leading criteria for consideration as a developed nation.

Given the enabling framework already in place, the principal challenges are in translating it into effective policy, programming and implementation.

### Implementing the National Policy on Women and the Plan of Action

The challenge is to integrate the National Policy and the Plan of Action into all sectors and levels of government, and to establish and monitor pertinent and measurable indicators, design and monitor appropriate incentives, and set the benchmark by which all other sectors of society will be measured. This is consistent with the Government Transformation Programme to strengthen public services in the National Key Result Areas.

Towards that end, mechanisms for mainstreaming gender in policies, programmes and projects will need to be strengthened, by:

- Ensuring mainstreaming of gender into all government policies through establishment of a gender management system.

- Integrating gender into strategic planning and implementation processes such that gender is included in all development targets.
- Implementing a gender and development budget policy requiring all government departments and agencies to identify those components of their budget aimed at addressing gender issues.
- Intensifying the implementation of gender training programmes in the public and private sector to improve skills for gender analysis and policy formulation.
- Training gender specialists in line ministries and sectors to implement gender mainstreaming.
- Requiring public and private organizations to develop a gender equity policy – the Tenth Malaysia Plan’s objective of getting all organizations to publish the gender and ethnic composition of their employees is a significant step.
- Shaping public discourse by engaging civil society in identifying appropriate indicators and by regularly publishing the results of monitoring and evaluation of these indicators.

### Improving the quality of education from a gender perspective

A change of hearts and minds is essential to realizing gender equality, and the single most important institutional setting is education. Today’s climate for public discussion on the quality of education and the need for critical thinking provides opportunities to integrate human and gender rights modules into curricula; and to revise the curricula, textbooks and other instructional materials, as well as teaching-learning methods, to eliminate gender biases and stereotyping.

Given the disparities in women’s participation in technical courses, there may be room for an affirmative action programme. If such a programme is to succeed, however, biases in the labour market will also need to be addressed.

### Enhancing women’s economic empowerment

A key challenge is to translate women’s access to education into greater opportunities in the labour market, especially decision-making positions. The reasons for the relatively low labour force participation of tertiary-educated women need to be further analysed and tackled, given the considerable resources devoted to education at that level. Efforts to remove the obstacles to labour force participation of women with secondary education and below have to be re-doubled. Existing policies and programmes have been ineffective in raising women’s participation rates for a generation. A wide-ranging engagement of women, at all levels, is needed to ensure that policies and programmes meet women’s needs and desires.

From a rights perspective, steps have to be taken to:

- Improve working conditions for all by enhancing minimum labour standards.
- Set up more childcare facilities.
- Combat sexual harassment in the workplace.
- Monitor employment practices and enforce equality of treatment in the labour market, possibly by means of a complaints mechanism in the Department of Labour to deal with issues of discrimination (for this to be effective, personnel in the department will have to acquire the capacity to undertake independent evaluation and analysis of such matters).
- Further reduce de facto gender segregation of occupations.

### Strengthening rural women’s livelihoods and land ownership rights

While there has been remarkable achievement in poverty reduction, the incidence of poverty in rural areas remains very much higher than in urban areas. In addition, the rural–urban income gap has been resistant to reduction, with mean rural incomes still around half mean urban incomes.

Women bear a substantial burden in all this, despite the reported low labour force participation rates of rural women. The Government is aware of their burden and has instituted programmes that directly or indirectly address women and their needs and responsibilities. In the area of property rights, however, an implicit bias has become increasingly manifest, especially in the context of development-induced resettlement or displacement. This is ironic as island Southeast Asia, including the peninsula, has been traditionally a cultural area where women have had property rights, rights that are being eroded in the process of modernization and development.

Steps need to be taken to halt this erosion and to uphold a proud and honourable tradition, through:

- Undertaking gender-sensitive land-tenure mapping to set the baseline for land rights, with emphasis on indigenous women, ensuring that women are not inadvertently dispossessed during development-linked displacement.
- Including acquisition of land ownership by women as an indicator of poverty and vulnerability reduction (this is critical as female-headed households are at greater risk of poverty).
- Incorporating intra-household distribution issues in poverty and vulnerability monitoring.
- Enshrining in policy the primacy of subsistence use of land, forest and commons; recognizing women as primary users of these lands; and engaging local communities in environmental resource regeneration and management as part of the overall effort to achieve MDG 7.

### Increasing women's representation

Political parties need to use quotas to increase women's representation in elected and appointed bodies in line with the CEDAW committee's recommendation and with the Government's own target of 30 per cent in the public sector.

### Moving towards more equal sharing of paid and unpaid work

This is a major unresolved issue in just about all societies. Malaysia has no systematic monitoring of the time that men and women spend in unpaid care and housework, and resolving this is a requisite first step.

The Government should then consider formulating a "reconciliation policy", that is, a gender policy aimed at addressing socially constructed inequalities at work and in the home. The common ground of the policy is the importance of economic independence – the notion that women as well as men should be able to reach a situation in which every adult can build an independent livelihood regardless of gender, marital status or living arrangements.

It should also promote initiatives on shared parenting, through help to both parents or incentives to men to accept more responsibility, through provisions to support mothers' employment and through provisions for parental leave. These proposals are in line with the CEDAW committee's call to Malaysia to implement comprehensive measures to bring about change in stereotypical roles. Such measures should include awareness-raising and educational campaigns addressing women and men, girls and boys and religious leaders.

### Creating a national strategy on reducing violence against women and rape

Despite enhanced legal provisions, rape and other criminal and violent acts against women show a clear rising trend. The incidence of rape now puts Malaysia in or near the top quartile globally. Addressing violence against women should be a key component of the Government's National Key Result Area to reduce crime by 20 per cent by 2012. Among measures that could be introduced include:

- Launching a sex offender register, with requirements to report their whereabouts to the police at regular intervals.
- Changing the culture of the police force to link gender violence with broader civilian

security, rather than treating it as a “niche” offence.

- Making the subject of violence against women a key part of police training and refresher courses.
- Increasing the number and proportion of female police staff.

Civil society organizations have taken the initiative in mainstreaming the issue of gender-based violence, but they continue to work under severe constraints. They need support even to have the Government assume some of their current activities. Even more important,

their initiatives need to be backed by supportive hard and soft infrastructure, including:

- A national network of women’s support centres (now located mainly in urban areas) for survivors of violence against women.
- Gender sensitization training for judges, prosecutors, police and service providers such as social workers and medical personnel.
- A separate policy and grievance procedure on sexual harassment.
- A minimum age of marriage of 18 for all children in Malaysia.

## Annex 3.1

Target	Indicator	Definition
<b>Target 3A:</b> Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	<b>3.1</b> Ratios of girls to boys in primary, secondary and tertiary education	The ratio of girls to boys in primary, secondary and tertiary is defined here as the ratio of enrolment rates of female students to male students (separate indicators are given by level of education). The ratio of rates rather than number is used, to standardize for differences in the sex ratio at birth. It is a measure of the equality of opportunity of the education system.
	<b>3.2</b> Share of women in wage employment in the non-agricultural sector	The share of women in wage employment in non-agriculture (which includes industry and services) is 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.
	<b>3.3</b> Proportion of seats held by women in national parliament	The proportion of seats held by women in the national parliament is the number of seats held by women expressed as a percentage of all occupied seats. Women’s representation in parliament is one aspect of women’s opportunities in political and public life, and is therefore closely linked to women’s empowerment.

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# MDG 4

## Reduce child mortality



### MDG 4 has one target:

- Reduce by two thirds, between 1990 and 2015, the under-five mortality rate.

Malaysia is likely to achieve this target by 2015. The three indicators and their definitions are given in the chapter annex. Both the under-five mortality rate and the infant mortality rate declined from 1990 to 2008: the former from 16.8 deaths per 1,000 live births to 8.1, and the latter from 13.1 deaths per 1,000 live births to 6.4. Primary immunization coverage has exceeded 90 per cent of the target population, particularly immunization for measles, which is given in combination with mumps and rubella at one year, exceeding 94 per cent in 2008.

Among the factors that contributed to the success in the reduction of child mortality are:

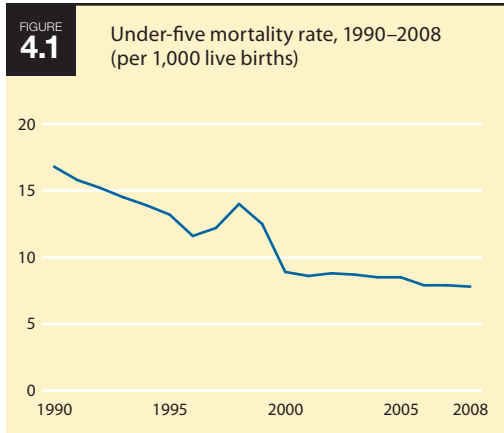
- A high proportion of deliveries attended or assisted by skilled birth attendants.
- A wellness assessment that includes regular monitoring of growth and development.
- A comprehensive childhood immunization programme, established since 1958.
- Greater access to the basic health-care services through a network of health and community clinics supported by trained midwives and other health workers.
- Introductions to specialist services by the Family Medicine Specialist at the primary health-care level.

Child health services in Malaysia are an integral component in controlling communicable diseases, including other preventive and curative interventions such as the promotion of breast feeding and rehabilitation programmes for child malnutrition.

### Under-five mortality rate

#### Trends

The under-five mortality rate is a leading indicator of child health and overall development. For Malaysia, it plummeted from 70.2 deaths per 1,000 live births in 1965 to 17.7 in 1989.



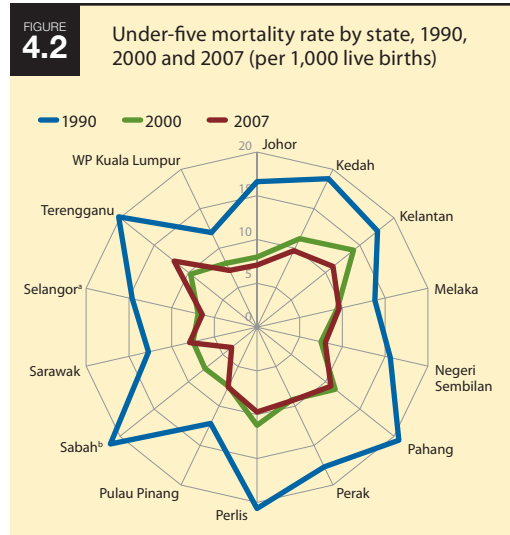
Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

Since then, the decline has been slower, reaching 7.8 deaths per 1,000 live births in 2008 (Figure 4.1), but that is still more than a 50 per cent reduction over this period. The MDG target for under-five mortality for Malaysia by 2015 is 5.6 per 1,000 live births, and is likely to be achieved.

Under-five mortality declined in all states from 1990 to 2007 (Figure 4.2) with declines generally greater in the first decade than in the more recent period. In 1990, Pahang, Perlis, Sabah and Terengganu had the highest under-five mortality; all four states had rates above 20 deaths per 1,000 live births. By 2007, all states in Malaysia had rates below 20 per 1,000 live births, and only Pahang, Kelantan and Terengganu had rates above 10 per 1,000 live births.

The states that recorded the biggest declines were Selangor (56 per cent), Perlis (53 per cent) and Johor (57 per cent). Sabah recorded a decline of 83 per cent. The very low rate for Sabah appears implausible, and deaths may be under-reported.<sup>1</sup> Ministry of Health surveys also indicate that deaths may be under-reported in Sabah, but those surveys do not provide an estimate of the under-registration. This should be investigated further.

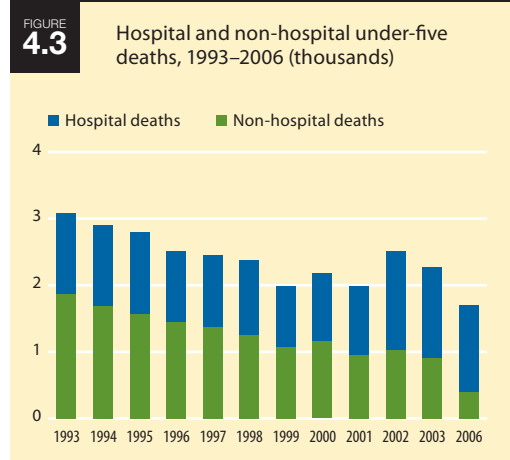
More than three quarters of deaths under-five occurred in hospitals in 2006 (Figure 4.3).



a. Includes Putrajaya.

b. Includes Labuan.

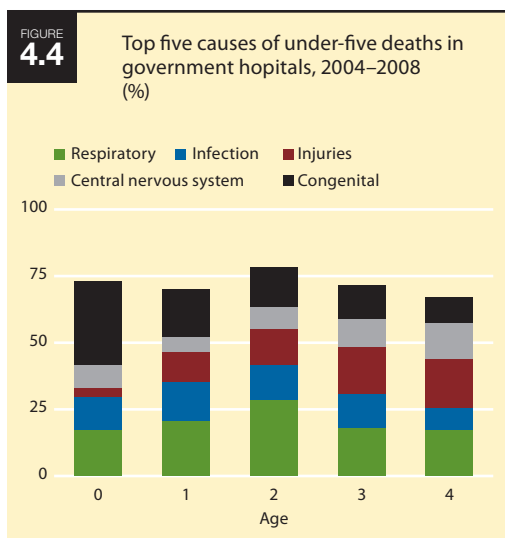
Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.



Source: Swee Lan Wong, Imam Hussain and Ismail Muhammad. 2008. *A Study on Under Five Deaths in Malaysia in the Year 2006*. Ministry of Health, Kuala Lumpur.

Most of the non-hospital deaths were among Orang Asli children and non-citizens, suggesting parents' ignorance of the severity of illness or that socio-cultural and economic factors are preventing parents from seeking medical care for their children. Non-availability of transport was one of the main reasons for not seeking care or for delay in seeking care. It is probable that many of these non-hospital deaths were preventable, if only the

1. Wong and others (2008).



Source: Swee Lan Wong, Imam Hussain and Ismail Muhammad. 2008. *A Study on Under Five Deaths in Malaysia in the Year 2006*. Ministry of Health, Kuala Lumpur.

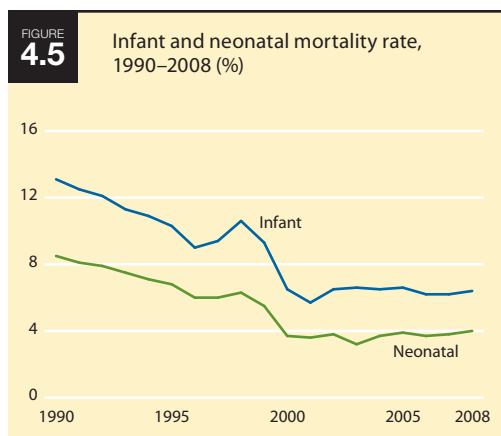
parents had brought the children to hospitals early.

### Causes of deaths

By ICD 10 classification, the five most common causes of death among children under five in 2004–2008 were congenital malformation, deformations and chromosomal abnormalities; infectious and parasitic diseases; diseases of the respiratory system; injury, poisoning and certain other consequences of external causes; and diseases of the central nervous system (Figure 4.4).<sup>2</sup>

Among the most common causes of death for children under one year were certain conditions originating in the perinatal period and congenital malformation, deformations and chromosomal abnormalities. Deaths from acute diarrhoeal diseases and pneumonia are preventable or treatable with existing inexpensive means. Data from the Third National Health and Morbidity Survey showed that children under 4 years had an incidence rate of 12 per cent for home injuries, 1.9 per cent for road injuries and 1.1 per cent for recreational injuries. Some children had co-morbid

2. WHO (1999).



Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

conditions that caused them to succumb more readily to those injuries. Among them, malnutrition was another preventable and treatable condition.

### Infant and neonatal mortality rate

The infant mortality rate declined by about half from 1990 to 2000, then stabilized at around 6 per 1,000 live births in 2007 (Figure 4.5).

Similarly, the neonatal mortality rate (deaths in the first 28 days after birth) was reduced by half from 1990 to 2007, from 8.5 per 1,000 live births to 3.8. As one might expect, state-level trends of infant and neonatal mortality reflect those of under-five mortality (Figure 4.6 and Table 4.1).

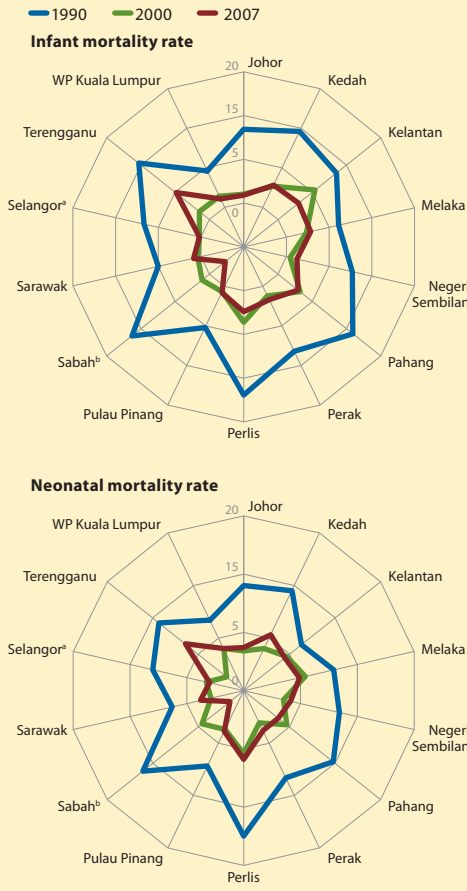
In 1990, Pahang, Perlis, Sabah and Terengganu had infant mortality rates above 15 infant deaths per 1,000 live births, almost double the rate for the best performing states of Kuala Lumpur and Pulau Pinang. In 2007, infant mortality was below 10 per 1,000 live births in all states with rates ranging from 5.2 in Selangor (Sabah seems to have under-reporting issues) to 9.9 in Terengganu.

### Proportion of one-year-olds immunized against measles

Malaysia has achieved almost full coverage of immunization of one-year-olds against measles. In 2008, 94.3 per cent of one-year-olds had received immunization vaccine for measles

FIGURE 4.6

Infant and neonatal mortality rates by state, 1990, 2000 and 2007 (per 1,000 live births)



a. Includes Putrajaya (for 2007).  
 b. Includes Labuan (for 2000 and 2007).  
 Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

given in combination with those for mumps and rubella, up from 70.1 per cent in 1990. Figure 4.7 shows the improvement in immunization coverage by state. In 1990, only one state, Johor, had more than 80 per cent of one-year-olds immunized against measles. By contrast, only Kuala Lumpur had below 80 per cent immunization coverage in 2008. The low rates for Kuala Lumpur can be explained by parents seeking immunization from the private sector or health services from neighbouring states. The reporting system of immunization coverage from the private to the public sector is weak, leading to these inaccuracies.

TABLE 4.1

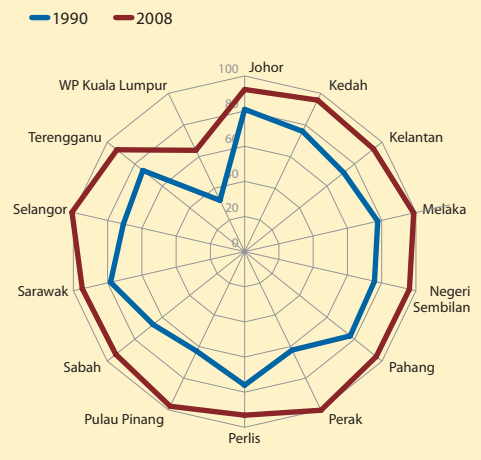
Under-five and infant mortality rates by state, 1990 and 2007

	Under-five		Infant	
	1990	2007	1990	2007
Malaysia	16.8	7.9	13.1	6.2
Johor	16.6	7.1	13.4	5.9
Kedah	18.8	9.7	14.6	7.8
Kelantan	17.6	11.1	13.5	8.0
Melaka	13.8	9.6	11.1	7.8
Negeri Sembilan	15.6	8.0	12.7	6.2
Pahang	20.7	10.8	15.9	7.9
Perak	17.7	9.3	13.2	6.7
Perlis	20.7	9.7	16.9	7.4
Pulau Pinang	12.2	7.6	10.2	5.8
Sabah <sup>a</sup>	21.4	3.9	16.3	3.0
Sarawak	12.7	7.9	10.0	5.9
Selangor <sup>b</sup>	14.6	6.4	11.7	5.2
Terengganu	20.2	12.1	15.3	9.9
Kuala Lumpur	12.0	7.2	9.6	6.1

a. Includes Labuan for 2007.  
 b. Includes Putrajaya for 2007.  
 Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

FIGURE 4.7

Proportion of one-year-olds immunized against measles (%)



Source: Data for 1990–2007: *Indicators for Monitoring and Evaluation of Strategy for Health for All (1990–2007)*. Data for 2008: "Health Information Management System – Family Health Subsystem 2008". Malaysia, Health Informatics Centre, Planning and Development Division, Ministry of Health.

Two states showed more than 100 per cent coverage because of immunization given to

children from other states and non-citizens. (Kuala Lumpur is contiguous with Selangor, and crossing a street can mean crossing the administrative boundary.)

## The way forward

Malaysia has a low child mortality rate. Further reductions pose a challenge and require specific analysis of the conditions leading to child deaths, especially in relation to social and economic conditions. Such analysis will assist in developing a more targeted approach, complementing existing outreach and coverage of health-care services.

### Sustaining reductions in child mortality

The main causes of child mortality are conditions originating in the perinatal period, congenital malformation and chromosomal abnormalities. Treatment and management of these conditions require policy changes and major investments in pre-pregnancy care, prenatal diagnosis and specialized care.

### Reducing inequities

In 2007, children under five in Kelantan, Pahang and Terengganu were at higher risk of dying than in other states. Children from indigenous minority groups, including the Orang Asli, and non-citizens were likely to die from infections such as pneumonia and acute gastroenteritis, aggravated by malnutrition. These conditions are preventable and treatable at relatively low cost. New strategies need to be formulated to enhance access to health care for vulnerable populations to prevent common causes of death among infants and children under five. These may include improving rural infrastructure, logistics and human resources.

Other strategies include community participation and empowerment through programmes such as the Village Health Promoter in Sarawak.

### Enhancing quality of care

Quality of care provided by primary care workers needs to be strengthened through

capacity building, early identification and referral cases. The Integrated Management of Childhood Illnesses programme has been implemented in remote areas of Sabah, Pahang and Sarawak with high under-five mortality. In addition, neonatal care infrastructure – such as neonatal resuscitation facilities, incubators for transport and neonatal intensive care units – must be adequate to meet the needs of rural populations.

### Improving health service delivery

Children are usually brought to health clinics to comply with the immunization schedule. After the booster dose at 18 months, visits of toddlers are less regular, and they may not have any contact with health-care facilities until they are 7 years old, when the school health programme starts.

Innovative strategies must be developed to encourage regular visits between age 18 months and 7 years old. This will provide an opportunity to screen children for other underlying medical problems, such as developmental and cognitive deficits, enabling early intervention.

### Upgrading facilities and strengthening access to services

Special attention should be given to vulnerable groups, such as urban poor and indigenous communities, showing a high trend in child mortality. Geographical barriers and difficulty in building health clinics in low-populated minority groups are some of the problems. Inaccessibility may cause unavoidable delays in transferring patients to hospitals with specialists. Contingency plans to transfer patients early and quickly should be put in place.

The Ministry of Health will continue to strengthen and expand urban and rural health services through upgrading of existing health facilities and building new hospitals and clinics. Recent innovative strategies to improve access to health services in urban and rural areas include 1Malaysia Clinic (*1Klinik Malaysia*), 1Malaysia Mobile Services, extended

clinic hours and teleprimary care services, as well as drive-through and postal pharmacy services.

### Improving death certification

A large proportion of deaths certified by non-medical personnel are grouped under signs and symptoms. This leads to inaccuracy in diagnosis and is not systemic. All deaths should be certified by medical personnel, according to ICD 10 coding, and verbal autopsies should be used for non-hospital deaths.

### Strengthening quality of data

Since the private sector plays an increasing role in providing health care, it would be timely to start strengthening data collection from that sector, to get a comprehensive picture of total care provided by the health-care system.

Disaggregated data by state, urban/rural location, income quintile, sex and ethnic group is vital to identify the disparities in health care. This would enable definitive actions to be taken for the groups that need them most.

### Reducing injuries

The Ministry of Health, together with the Department of Social Welfare and other relevant ministries, agencies, NGOs and civil society generally, should investigate the 12 per cent of child deaths due to home injuries and design preventive programmes to reduce such injuries.

The Ministry of Housing and Local Government and local authorities need to ensure better enforcement of safety standards for playgrounds and recreational areas. The Malaysian Road Safety Council needs to step up implementation of the Road Safety Plan of Malaysia.

## Annex 4.1

TABLE  
A4.1

MDG 4 targets and indicators

Target	Indicator	Definition
<b>Target 4A:</b> Reduce by two thirds, between 1990 and 2015, the under-five mortality rate	<b>4.1</b> Under-five mortality rate	This is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates. Deaths and births are registered with the National Registration Department and compiled by the Department of Statistics.
	<b>4.2</b> Infant mortality rate	This is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of one if subject to current age-specific mortality rates.
	<b>4.3</b> Proportion of one-year-old children immunized against measles	This is the percentage of children under one year of age who have received at least one dose of a measles vaccine. It is generally recommended for children to be immunized against measles at the age of nine months.

## References

- IPH (Institute for Public Health Malaysia). 2008. The Third National Health and Morbidity Survey 2006 (NHMS III). Vols. 1 and 2. Ministry of Health, Kuala Lumpur.
- WHO (World Health Organization). 1999. *International Statistical Classification of Diseases and Related Health Problems, 10th Revision*. Geneva.
- Wong, Swee Lan, Imam Hussain and Ismail Muhammad. 2008. *A Study on Under Five Deaths in Malaysia in the Year 2006*. Kuala Lumpur: Ministry of Health.



# MDG 5

## Improve maternal health



### MDG 5 has two targets:

- Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.
- Achieve, by 2015, universal access to reproductive health.

Malaysia will have to scale up its efforts to reduce the maternal mortality ratio (MMR) to 11 per 100,000 live births by 2015. After declining substantially until the mid-1990s, the ratio has reached a plateau. Further declines in the MMR will be slow if high-risk women do not practise effective family planning. Deliveries by skilled health personnel have been above 98 per cent since 2004. The two targets and six indicators and their definitions are given in the chapter annex.

In 2005 at the World Summit, an additional target to achieve universal access to reproductive health was added to fulfil one of the main goals of the United Nations International Conference on Population and Development in 1994.

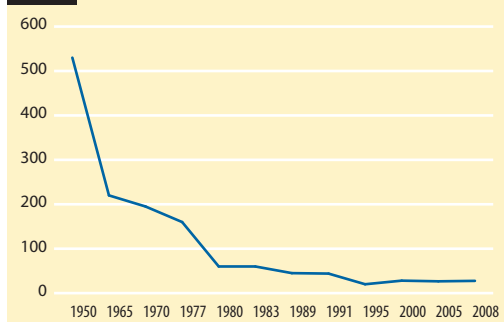
The additional indicators have no targets, but the adolescent birth rate and antenatal coverage have shown good progress. Greater efforts are required to improve the contraceptive prevalence rate and unmet needs of family planning.

### Maternal mortality ratio

#### Trends

Long-term trends of the MMR for Malaysia have shown impressive declines (Figure 5.1). Among several factors that contribute for the reduction are the national commitment to improve maternal health, as reflected through the allocation of resources for health care; access to professional care during pregnancies and childbirth; and increasing access to quality family planning services and information.

The MMR declined from 140 per 100,000 live births in 1970 to 20 in 1990 (a reduction

FIGURE  
5.1Maternal mortality ratio, 1950–2008  
(deaths per 100,000 live births)

Source: 1950–1989, 1998–date: Malaysia, Department of Statistics, *Vital Statistics*, various years; 1990–1997, Malaysia, Ministry of Health, 1991–1998, *Report on the Confidential Enquiries into Maternal Deaths in Malaysia*.

of 85 per cent in 20 years). However, with the Ministry of Health's Confidential Enquiries into Maternal Deaths (CEMD) set up in 1991, the MMR was reported at 44 per 100,000 live births that year. The rate declined, on this basis, to 28.1 in 2000 but subsequently plateaued and was 27.3 in 2008.

Further reduction of maternal mortality will be a challenge because indirect causes (see below) of maternal death are more complex to manage and will need the support of other disciplines for specialized skills, multidisciplinary case management, and prevention of pregnancies of known high-risk factors.

The number of maternal deaths was reduced from 153 in 1998 to 137 in 2007 (Table 5.1). During this period, live births also declined. High MMR was noted in states with low live births.

The MMR among Chinese has declined remarkably since 1997, with some decline among Malays and Indians (Figure 5.2). High MMRs are seen among Other Bumiputera and Others. Some reasons for the high MMRs could be small denominators and geographical barriers.

Based on data from Sabah, the MMR for immigrants is much higher than that of citizens. These are often undocumented immigrants of lower socio-economic status and

TABLE  
5.1

## Maternal deaths, live births and maternal mortality ratios by state, 1998, 2000 and 2007

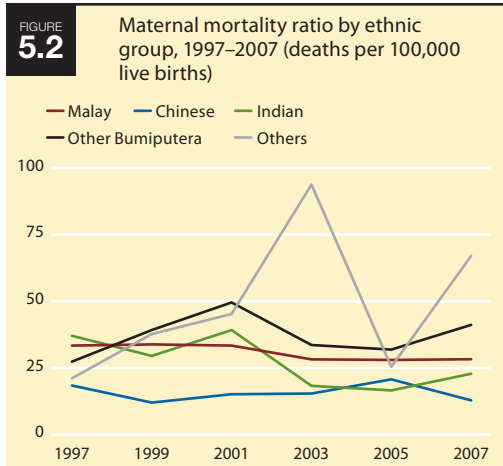
	1998			2000			2007		
	Maternal deaths	Live births	MMR	Maternal deaths	Live births	MMR	Maternal deaths	Live births	MMR
Malaysia	153	524,978	29.1	168	549,543	30.6	137	472,048	29.0
Johor	19	57,091	33.3	12	67,907	17.7	29	56,865	51.0
Kedah	15	39,814	37.7	10	41,263	24.2	11	33,630	32.7
Kelantan	13	45,123	28.8	9	40,641	22.1	9	33,646	26.7
Melaka	7	15,951	43.9	2	15,672	12.8	2	13,260	15.1
Negeri Sembilan	2	19,142	10.4	1	19,394	5.2	5	16,866	29.6
Pahang	13	29,156	44.6	7	29,724	23.5	7	24,725	28.3
Perak	8	47,956	16.7	12	48,786	24.6	9	35,990	25.0
Perlis	1	4,692	21.3	0	4,656	0	2	3,927	50.9
Pulau Pinang	8	26,039	30.7	1	26,826	3.7	5	22,196	22.5
Sabah <sup>a</sup>	21	54,738	38.4	68	56,352	120.7	20	47,535	42.1
Sarawak	8	46,083	17.4	7	50,689	13.8	11	41,840	26.3
Selangor <sup>b</sup>	20	81,354	24.6	28	90,514	30.9	20	94,324	21.2
Terengganu	4	24,995	16.0	5	25,502	19.6	4	22,213	18.0
Kuala Lumpur	14	32,844	42.6	6	31,617	19.0	3	25,031	12.0

a. Includes Labuan.

b. Includes Putrajaya.

Note: Maternal deaths and live births are numbers. MMR is per 100,000 live births.

Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.



Note: "Others" includes non-citizens.

Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

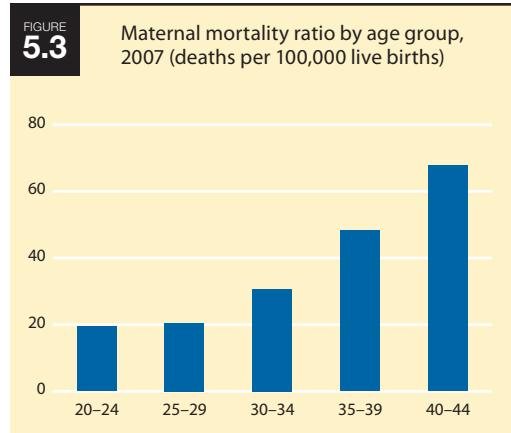
with little education. They have high parity as they do not practise contraception. They do not receive antenatal care and often deliver in an unsafe environment, where deliveries are conducted by untrained birth attendants. These mothers present late with complications and have very poor outcomes.

The MMR increases with maternal age and parity (Figure 5.3 and Table 5.2).

The leading causes of maternal deaths can be classified into two broad categories: direct and indirect. "Direct obstetric deaths are those resulting from obstetric complications of the pregnant state (i.e. pregnancy, labour and the puerperium), from interventions, omissions or incorrect treatment, or from a chain of events resulting from any of the above. Indirect obstetric deaths are those resulting from a previously existing disease or a disease that developed during pregnancy".<sup>1</sup>

According to the CEMD for 1997 and 2007, postpartum haemorrhage and medical conditions declined from 1997 to 2007 (Table 5.3), while hypertensive disorders and obstetric embolism increased. Maternal deaths associated with anaesthesia and obstetric trauma decreased. Analysis from the CEMD report

1. Cross and others (2010).



Source: Malaysia, Department of Statistics, *Vital Statistics*, various years.

**TABLE 5.2** Number of maternal deaths in 2007 by age and parity

Age	Parity		
	1	2–5	>6
< 19	2	—	—
20–24	14	2	—
25–29	14	15	1
30–34	7	26	5
35–39	2	22	9
40–44	—	7	6
> 45	—	—	2

— none recorded/reported.

Source: Malaysia, Ministry of Health, Health Informatics Centre.

showed that 60 per cent of maternal deaths were among those who did not practise contraception. About 10 per cent of deliveries were conducted by unskilled personnel, and 60 per cent of all maternal deaths occurred in the immediate postnatal period.

### Proportion of births attended by skilled health personnel

The proportion of births attended by skilled health personnel has been steadily increasing from 1990, and since 2004 has been consistently above 95 per cent (Figure 5.4). The data cover all public and private institutions that report to the Ministry of Health. Safe deliveries in all states increased from 74.2 per cent in 1990 to 97.6 per cent in 2008.

TABLE  
5.3

Causes of maternal death, 1997 and 2007

Cause	1997		2007	
	Number	Percent	Number	Percent
Postpartum haemorrhage	31	19.6	23	16.9
Hypertensive disorders in pregnancy	24	15.2	25	18.4
Obstetric embolism	18	11.4	24	17.7
Associated medical conditions	36	22.7	20	14.7
Obstetric trauma	9	5.7	6	4.4
Antepartum haemorrhage	3	1.9	2	1.5
Puerperal sepsis	3	1.9	3	2.2
Abortion	5	3.2	6	4.4
Ectopic pregnancy	2	1.3	7	5.1
Unspecified complications of pregnancy and puerperium	7	4.4	8	5.9
Associated with anaesthesia	5	3.2	1	0.7
Others	15	9.5	11	8.1
Total	158	100	136	100

Source: Malaysia, Ministry of Health, 2006–2008, *Report on the Confidential Enquiries into Maternal Deaths in Malaysia*.

## Universal access to reproductive health

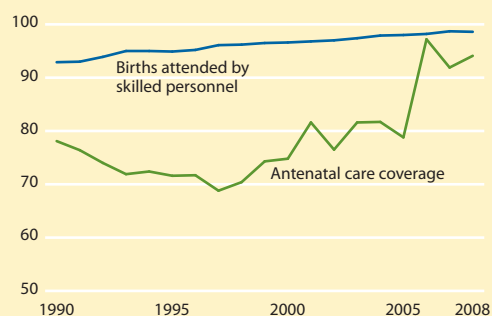
Universal access refers to the ability to achieve sexual and reproductive health through health care – that is, the methods, techniques and services that contribute to health and well-being by preventing and solving reproductive health problems. All individuals should have equitable access to the appropriate health care.

## Contraceptive prevalence rate and unmet need for family planning

The contraceptive prevalence rate is the percentage of women married or in-union aged 15–49 who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method – modern or traditional. Modern methods include female and male sterilization, oral hormonal pills, the intra-uterine device (IUD), the male condom, injectables, the implant (including Norplant), vaginal barrier methods, the female condom and emergency contraception. Traditional methods include the rhythm (periodic abstinence), withdrawal, lactational amenorrhoea method (LAM) and folk methods.

FIGURE  
5.4

Safe delivery and antenatal care, 1990–2008 (%)



Note: Three-year moving average for antenatal coverage.

Source: Malaysia, Ministry of Health, Health Informatics Centre.

Contraceptive prevalence is one of the proxy indicators for access to reproductive health.

Increasing access to high-quality family planning services and information has been an important factor in improving maternal health in Malaysia. The National Population and Family Development Board conducts Malaysian Population and Family Surveys every 10 years, starting from 1974. The contraceptive prevalence rate doubled from 26.3 per cent in 1974 to 52 per cent in 1984, staying at about 50 per cent after that. The

most recent survey in 2004 estimated prevalence at 51.9 per cent.

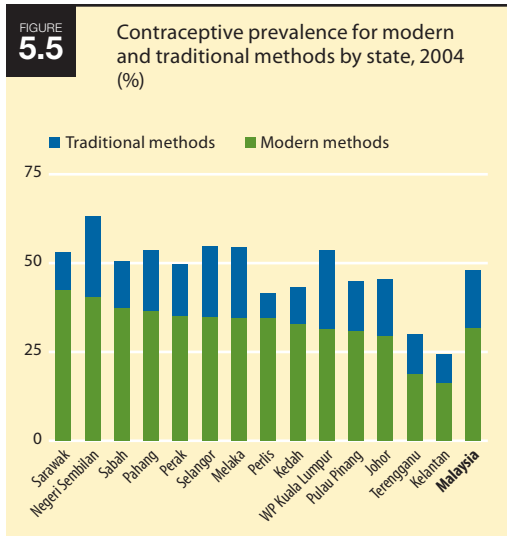
Steps are being taken to address the stagnant contraceptive prevalence rate, which include training of health-care providers and introducing effective family planning among high-risk mothers as a quality indicator. (Selangor and Pahang have piloted these projects, where these high-risk mothers receive counselling and start effective contraceptive methods.)

In 2004, among married women of reproductive age using modern methods, 26.8 per cent took the pill, 14 per cent used condoms and 12.7 per cent underwent tubal ligation. The highest prevalence of modern methods was in Sarawak and Negeri Sembilan, the lowest was in Kelantan and Terengganu (Figure 5.5). The use of traditional methods declined from 42.0 per cent in 1984 to 17.5 per cent in 2004. The rhythm method was the most popular traditional method, with the proportion increasing from 10.8 per cent in 1974 to 17.8 per cent in 2004. The practice of other traditional methods also declined substantially after 1984.

The guiding principle for provision of contraception is that couples have the right to choose the number and timing of their births and the method of family planning. However, some couples wish to stop or delay childbearing but are not using any contraception method for various reasons. These couples have an “unmet need for contraception”.

Table 5.4 presents data on contraceptive prevalence using any method, and unmet need for family planning in 2004, but only among married women. It indicates that, by ethnic group, Chinese, Indians and Malays had similar unmet needs for family planning. But differences were larger in the contraceptive prevalence rate, implying that a higher proportion of Chinese and Indians than Malays wanted to stop childbearing.

A slightly higher proportion of rural than urban women had an unmet need for family planning, while Kelantan and Pulau Pinang



Source: Malaysia, National Population and Family Development Board, 2004, Malaysian Population and Family Survey.

had the highest unmet need and women in Negeri Sembilan and Selangor had the lowest.

Among women not wanting any more children but not practising family planning, 24.5 per cent had an unmet need. The highest rate was among the 45–49 age group (41.7 per cent) followed by the 40–44 age group (22.7 per cent) and the 20–24 age group (21.4 per cent). A slightly higher proportion of rural women (30.6 per cent) than urban women (22.0 per cent) had an unmet need.

### Adolescent birth rate

The adolescent birth rate measures the annual number of births among those 15–19 years of age per 1,000 adolescents in that age group. High birth rates among adolescents pose risks of maternal morbidity and mortality. Adolescent mothers also have their access to higher education curtailed and those who are unmarried face a variety of social and economic problems.

The adolescent birth rate declined from 28 births per 1,000 adolescents aged 15–19 in 1991 to 13 in 2007. Malays and Chinese had the lowest rates in 2007 (Figure 5.6). The “Others” ethnic group includes non-citizens and migrants with low socio-economic background and education, and limited access to reproductive health services.

TABLE  
5.4

Contraceptive prevalence (any method) and unmet need for family planning by selected characteristics, 2004 (%)

	Contraceptive prevalence	Unmet need
Peninsular Malaysia	48.1	24.7
<b>Ethnic group</b>		
Chinese	64.3	22.2
Indians	51.0	26.6
Malays	39.3	25.9
<b>State</b>		
Negeri Sembilan	63.1	14.9
Selangor	54.6	19.4
Melaka	54.5	24.8
Pahang	53.7	21.9
Kuala Lumpur	53.7	25.4
Perak	49.7	27.3
Johor	45.4	25.8
Pulau Pinang	44.8	30.3
Kedah	43.3	29.3
Perlis	41.5	23.6
Terengganu	29.9	25.9
Kelantan	24.3	33.3
<b>Location</b>		
Rural	43.3	25.8
Urban	50.7	24.1

Note: The survey did not ask the necessary questions to allow the estimation of unmet need among married women who wished to delay childbearing. The data therefore refer only to women who wanted to stop childbearing.

Source: Malaysia, National Population and Family Development Board, 2004, Malaysian Population and Family Survey.

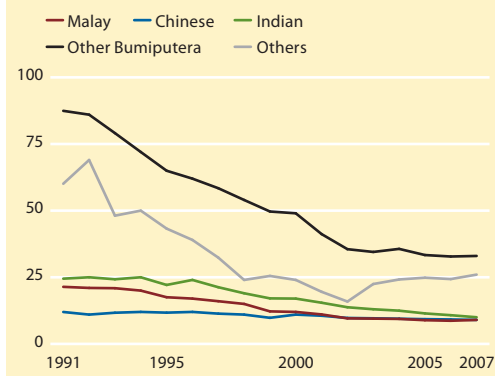
One of the reasons for low adolescent birth rates in Malaysia is the increased mean age of marriage for Malaysian women from 22 years in 1970 to 25.1 years in 2000. The mean age of marriage was highest for Chinese women (27 years) and lowest for Malay women (24.8 years).

### Antenatal care coverage

Antenatal care monitors the well-being of the mother and the unborn child. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital for their health and well-being. The World Health Organization recommends a minimum of four antenatal visits based on a

FIGURE  
5.6

Adolescent birth rates among women aged 15–19 years, by ethnic group, 1991–2007 (births per 1,000 adolescents)



Note: "Others" includes non-citizens.

Source: Malaysia, Department of Statistics, Vital Statistics, various years.

review of the effectiveness of different models of antenatal care.<sup>2</sup>

The antenatal first-visit coverage increased from 78 per cent in 1990 to 94.4 per cent in 2007 (Figure 5.4 above shows the three-year moving average for this variable). Pregnant women are monitored at every visit. The average number of antenatal visits was nine in 2007.

### Other reproductive health areas

One of the core components of reproductive health care is the treatment of reproductive tract infections and sexually transmitted infections. While the overall incidence of sexually transmitted infections treated at public facilities is relatively low per 100,000 population, at 2 for gonococcal infections, 3 for syphilis and 6 for hepatitis B, the variation among states is considerable (Table 5.5). Sarawak had an incidence of gonococcal infections that was four times the national average. It also had the highest incidence of syphilis.

### The way forward

#### Maternal mortality

Countries with a very low MMR, such as Malaysia, will require more innovative strategies

2. WHO (2002).

TABLE  
5.5

Incidence of gonococcal infections, syphilis and hepatitis B by state, 2005 (per 100,000 population)

State	Gonococcal infections	Syphilis	Hepatitis B
Malaysia	2.1	3.4	5.7
Johor	1.1	2.3	3
Kedah	1.7	0.9	0.7
Kelantan	0.7	0.5	5.8
Melaka	2.2	4.8	1.1
Negeri Sembilan	0.7	0.7	0.9
Pahang	1.5	6.5	12.9
Perak	0	1.2	3.1
Perlis	—	—	0.9
Pulau Pinang	1.1	5.7	3.8
Sabah	4	5.3	24.8
Sarawak	8.8	11.7	2.4
Selangor	0.6	1.3	1.5
Terengganu	—	0.4	3.8
Kuala Lumpur	3.1	4.5	3.5

— none recorded/reported.

Source: Malaysia, Ministry of Health, 2005, Indicators for Monitoring and Evaluation of Strategy for Health for All.

to further reduce maternal mortality, which has reached a plateau. Significant pockets of vulnerable and disadvantaged groups still face inequitable access to health care, and reaching out to these groups is a challenge for the health-care system. All forms of barriers – physical, social and financial – should be removed to improve access, ensuring effective health services easily accessible to all.

Geographical isolation associated with distance and limited access due to road conditions are common remediable causes, as shown in the CEMD reports. Other remediable factors include health workers' failure to appreciate severity, to diagnose and to inform seniors, and at times poor teamwork and communication. The reports also point to unbooked cases and non-compliance with advice, admission and treatment as deaths due to patient factors.

The strategies will include early detection of high-risk women and competency of health

staff handling acute obstetric emergencies. Successful local models of care should be identified and scaled up for large-scale implementation, especially among vulnerable groups. Special attention should also be given to the ethnic and indigenous groups that experience high maternal mortality.

Temporary homes, early admission into health-care facilities and availability of transport to send patients to the nearest hospital for deliveries are some solutions to reduce maternal mortality among indigenous groups. Emergency obstetric care should be readily available and accessible to all who need it. Contingency plans should be made to transfer patients early and quickly through community participation.

Staff are already receiving training on management of acute emergencies and obstetric drills for primary care, and community nurses get mobile phones to make patient referral easier. Collaboration among primary, secondary and tertiary care has been strengthened to reduce the referral bureaucracy of patients.

Education and empowerment of women are essential to increase their demand for health services. Emphasis should be given to family planning practices and pre-conception care to the mother and spouse, especially among high-risk groups. Increased attention is required for using family planning to delay and limit childbearing. To ensure the continuum of care that will meet the health needs of mothers and newborns, human resource management needs to be re-assessed.

The Third National Health and Morbidity Survey of 2006 made the following recommendations for identified subgroups of population requiring attention to enhance their health status:

- Rural health services provided by the Ministry of Health such as the Maternal and Child Health Services should be strengthened.
- Resource allocations should be needs-based, depending on the community of urban or rural areas.



- Health services should be developed at the home or community levels, within or outside the Ministry of Health's existing infrastructure, to reach all patients at their doorstep.

Disaggregated data by states, strata, and sex should be compiled to identify the disparities in health care for the different population subgroups (for the MMR as well as other indicators). This would enable health care to be stepped up for those groups who need it most. Subnational monitoring and evaluation systems, including targets, need to be established to identify gaps and analyse trends.

Data on maternal mortality have been reconciled between the Department of Statistics and CEMD, improving surveillance and registration. Cooperation with neighbouring countries is needed to determine solutions to address the immigrant problem as seen in Sabah.

### Contraceptive prevalence rate and unmet need for family planning

At about 50 per cent for all methods and 33 per cent for modern methods since the mid-1980s, the contraceptive prevalence rate is low in Malaysia compared with other countries in the East Asia–Pacific region.

This relatively low contraceptive prevalence rate alongside a high unmet need for contraception needs further investigation. In addition, frequent surveys should be conducted to assess the use of contraception among unmarried women, including adolescents, and to identify their unmet needs. There is also a need for evidence-based data on reasons for the low level of contraceptive use among women in the reproductive age group and on the related social ills such as abortion and baby abandoning. Qualitative research needs to be conducted on specific target groups and pockets of the population, such as the poor, marginalized and the lesser educated groups with unmet need for contraception.

Health education and promotion activities should focus on the negative impact of

unplanned pregnancies, religious issues affecting family planning and fear of the side effects of family planning. Users of traditional methods of contraception are a potential target group for modern methods. Unmet needs must be addressed through enhanced reproductive health services that target sexually active individuals and their partners. Current strategies need to reduce the gap of unmet need for contraception among high-risk mothers with special attention to the urban poor and indigenous minorities. They may also address the social ills related to baby abandoning.

### Adolescent sexual and reproductive health

Data on pregnancies among unmarried adolescents are lacking, but small-scale survey data indicate that sexual activity among young people is not uncommon. Young men and women need the skills to abstain from sexual activity until marriage. For those who are sexually active, they should be well informed on sexual and reproductive health and have the appropriate life skills. The level of family planning and reproductive health knowledge including sexually transmitted infections among young people is relatively low. Sex education is another strategy to reach young men and women to enable them to manage their sexual and reproductive lives.

The Ministry of Education has developed several modules to educate secondary students on sexual and reproductive health under the Family Health Education curriculum, which was launched by the Ministry of Education in 1989. The topics include sexuality, gender, sexually transmitted infections and HIV/AIDS. Two periods a week are allocated, and the subjects are taught across the curriculum. But the modules need to be reviewed to address the current and real needs of adolescents. In addition, more teachers need to be trained to teach these subjects.

More efforts are also needed to increase adolescent awareness of healthy lifestyles and living skills to prevent teenage pregnancy and



its consequences. Various programmes such as PROSTAR and the National Service offer excellent opportunities in this area. Pilot projects – including Café@teen implemented by the National Population and Family Development Board, as well as the HIV education programmes of the Federation of Family Planning Associations, Malaysia – can be used to reach out to more young people.

It is important to involve young people in programme planning and execution to ensure their effectiveness. Malaysia has already developed several adolescent-related policies, including the Adolescent Health Programme and services as an expanded scope of the Maternal and Child Health Programme (1996), the National Adolescent Health Policy (2001), the National Adolescent Health Plan of Action (2005) and the National Social and Reproductive Health Education Policy and Plan of Action (2009).

The Ministry of Women, Family and Community Development is currently reviewing the Child Act 2001 to emphasize the rights of children to development and participation in line with the core principles of the Convention on the Rights of the Child.<sup>3</sup>

Links between sexual and reproductive health and sexually transmitted infections and

HIV should be strengthened within the existing maternal and child health services.

### Antenatal care

Institutional deliveries in government facilities are the popular mode of delivery, though home deliveries remain a viable option, especially in rural areas for cultural and socio-economic reasons. Home deliveries are conducted by trained personnel, adhering to management protocols. Transit homes established for Orang Asli have helped to reduce maternal mortality among this group.

Data on antenatal care coverage are collected from both government and private health facilities. Strict enforcement of the Private Healthcare and Facility Act can ensure that private health facilities comply in providing timely and accurate data.

All birth attendants, trained and untrained, should be taught the proper management of the third stage of labour. They should be trained to recognize problems and institute treatment early, and should have contingency plans to transfer patients early and quickly. High-risk cases should be identified early and referred/admitted to hospitals. More flying squads should be available for remote and inaccessible areas to retrieve mothers in labour.

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3. There are four principles in the Convention on the Rights of the Child, namely, right to survival, development, protection and participation.

## Annex 5.1

**TABLE A5.1** MDG 5 targets and indicators

Target	Indicator	Definition
<b>Target 5A:</b> Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	<b>5.1</b> Maternal mortality ratio	The maternal mortality ratio is the number of maternal deaths per 100,000 live births. Deaths and births are registered with the National Registration Department and compiled by the Department of Statistics, Malaysia. In order to properly identify and improve coverage of maternal deaths, the Confidential Enquiries into Maternal Deaths has been undertaken for all deaths of pregnant women since 1991. Fortuitous deaths are excluded from the calculation of the maternal mortality ratio as are births and deaths of non-citizens and migrants.
	<b>5.2</b> Proportion of births attended by skilled health personnel	Skilled health worker refers to “an accredited health professional – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns”. Traditional birth attendants, trained or untrained, are excluded from the category of skilled health workers. In this context, the term traditional birth attendants refers to traditional, independent (of the health system), non-formally trained and community-based providers of care during pregnancy, childbirth and the postnatal period.
<b>Target 5B:</b> Achieve, by 2015, universal access to reproductive health	<b>5.3</b> Contraceptive prevalence rate	Contraceptive prevalence is the percentage of married couples who are currently using a method of contraception. Both traditional and modern or clinical methods of contraception are included when calculating prevalence. Estimates of contraceptive prevalence are obtained through household demographic surveys. The National Population and Family Development Board conducts the Population and Family Survey at 10-year intervals. The latest survey was carried out in 2004.
	<b>5.4</b> Adolescent birth rate	The adolescent birth rate is defined as the number of births born to women aged 15–19 years per 1,000 women in that age group. The number of births is obtained from the National Registration Office compiled by the Department of Statistics while the denominator is the population estimated by the Department of Statistics for that year.
	<b>5.5</b> Antenatal care coverage (at least one visit and at least four visits)	Antenatal care coverage (at least one visit) is the percentage of women aged 15–49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy, as a percentage of women age 15–49 years with a live birth in the same time period. Antenatal care coverage (at least four visits) is the percentage of women aged 15–49 with a live birth in a given time period that received antenatal care four or more times with any provider (whether skilled or unskilled), as a percentage of women aged 15–49 years with a live birth in a given time period.
	<b>5.6</b> Unmet need for family planning	Unmet need for spacing of births could not be calculated because the relevant questions were not asked in the Malaysian Population and Family Survey of 2004. Women with unmet need are those who are fecund and sexually active but are not using any method of contraception, and report not wanting any more children or wanting to delay the next child. The concept of unmet need points to the gap between women’s reproductive intentions and their contraceptive behaviour. Unmet need is expressed as a percentage based on women who are married. Unmet need estimates are obtained from household surveys conducted by the National Population and Family Development Board, which conducts the Population and Family Survey at 10-year intervals. The latest survey was conducted in 2004.  In the Malaysian context, unmet need for family planning could be estimated only for the unmet need for limiting births.

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# MDG 6

## Combat HIV/AIDS, malaria and other diseases



### MDG 6 has three targets:

- Have halted by 2015 and begun to reverse the spread of HIV/AIDS.
- Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.
- Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

This goal aims to combat HIV/AIDS, malaria and other diseases. Success will have a tremendous potential impact on development, not only through reducing the disease burden but also through improving on health care, social development and the economic impact.

In adapting the MDG 6 targets and indicators to be more relevant to the Malaysian context, several adjustments were made. In some instances, the appropriate data or measure required to report on the indicators are not available, so other proxies are presented instead. The chapter annex presents some caveats on measuring and reporting the 10 indicators for this MDG.

### HIV/AIDS

The HIV epidemic in Malaysia was initially driven by transmission among injecting drug users. From 1990 to 1996, the number of annual newly detected HIV cases attributed to injecting drug use rose from 60 per cent to 83 per cent. The number of cases detected through the various HIV surveillance strategies peaked in 2002 with 6,978 newly detected HIV cases; by the end of 2009, 87,710 cases had been reported.

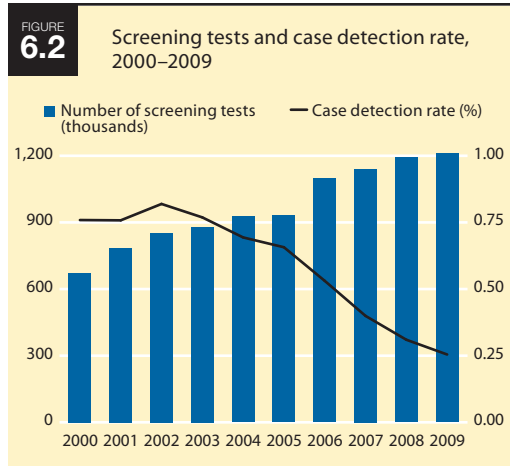
Since 2002, the number of cases detected has declined to just 3,080 in 2009, despite a substantial increase in the number of screenings (more than 1.2 million screening tests in 2009 alone). The majority of reported cases were among men aged 20–39 years, and

about 20 per cent of newly reported cases of HIV nationwide were among women (Figure 6.1).

The Ministry of Health had set the target of reducing the notification rate to 11 cases per 100,000 and later adjusted it to 9 cases per 100,000 population by 2015. Despite intensified screening, the number of cases detected continued to drop to 10.8 per 100,000 in 2009, indicating that Malaysia is achieving its target for reducing the notification rate.

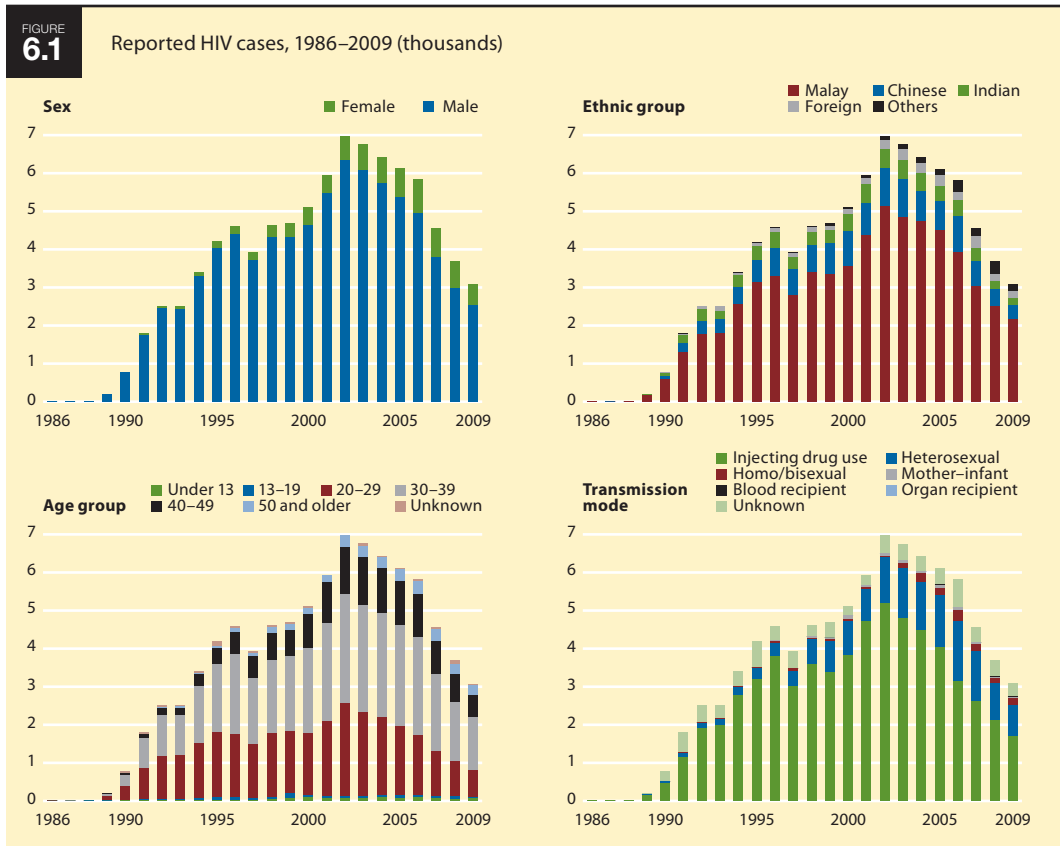
Figure 6.2 shows the changes in the number of HIV screening tests, with the case detection rate (percentage of cases detected over total screened) falling since 2002. Case detection may not, however, reflect the spread of infection, as it may occur at any stage of infection, thus masking the trends of old and new infections.

Another surveillance-based indicator is the number of HIV/AIDS-related deaths notified



Source: Malaysia, Ministry of Health, 2010.

through the health-care system. Although notification of deaths in Malaysia may still represent some under-reporting of cause of death, it is deemed to be comprehensive and would be subject to less bias.



Source: Malaysia, Ministry of Health, 2010.

The number of notified HIV/AIDS-related deaths was highest in 2007 at 1,374, falling to just 805 in 2009 (Figure 6.3). The trends of reported deaths as well as the drop in case detection since 2002 imply – though no more than this – that the HIV epidemic peaked initially within the injecting drug user subpopulation, has since dropped and is likely to have reached a plateau. While there is a shift to the increase in the proportion of cases attributed to sexual transmission, this shift does not appear to represent a growing epidemic. The drop in the number of deaths since 2007 would be consistent with a decline in the number of new infections since the late 1990s as well as the possible impact of higher survival rates due to broader treatment coverage.

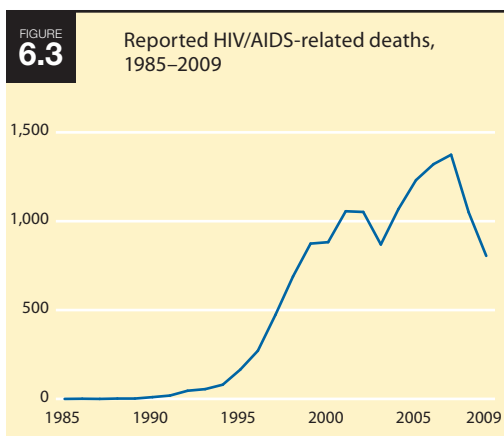
Although modelled estimates of new infections per year would provide a clearer indicator of the spread of infection, they are currently unavailable because of limitations in behavioural and population-based surveillance data needed to generate estimates, and because of limitations in the suitability of existing HIV-epidemic modelling tools. Further surveillance and data review in the coming years will help to assess conclusively whether the epidemic has truly been reversed, though existing data imply that it has.

### Most-at-risk populations

The HIV epidemic in Malaysia shows characteristics of a concentrated epidemic as defined by the World Health Organization (WHO), with a low estimated national prevalence of under 0.5 per cent but high prevalence among several most-at-risk populations (MARPs).

MARPs in Malaysia are currently defined as those engaging in behaviours that place them at a higher risk of contracting HIV than the general low-risk population. Indirectly these are also the populations that show HIV prevalence rates of more than 5 per cent. They include injecting drug users, female sex workers, men who have sex with men and the transgender population.

As said, injecting drug use was the initial key driver of the epidemic, with 74.7 per cent



Source: Malaysia, Ministry of Health, 2010.

of all new reported cases in 1999. By 2009, this proportion had declined to 55.2 per cent, signalling a rise in the share of sexually transmitted HIV. Indeed, in 2009, 26.7 per cent of reported cases were among those who reported heterosexual transmission of HIV and 5.3 per cent were through homosexual transmission (Table 6.1). Some bias in the reporting of transmission risk factors is likely, however, particularly because homosexuality is highly stigmatized in the country.

The first Integrated Bio-Behavioural Surveillance (IBBS) – for second-generation surveillance data – was conducted in December 2009 among three identified MARPs in the Klang Valley area. Funded and supported by the Government, with technical support from the World Bank, its operations were guided by the Malaysian AIDS Council and several partner organizations. The populations surveyed were injecting drug users, female sex workers and the

**TABLE 6.1** Distribution of newly reported HIV cases, by risk factor, 1990, 2000 and 2009 (%)

Risk factor	1990	2000	2009
Injecting drug use	60.4	74.7	55.2
Sexual transmission	5.2	18.8	32.0
Heterosexual	4.8	17.6	26.7
Homosexual	0.4	1.2	5.3

Source: Malaysia, Ministry of Health, 2010.

TABLE  
6.2

Key findings from bio-behavioural surveys among most-at-risk populations, Klang Valley 2009

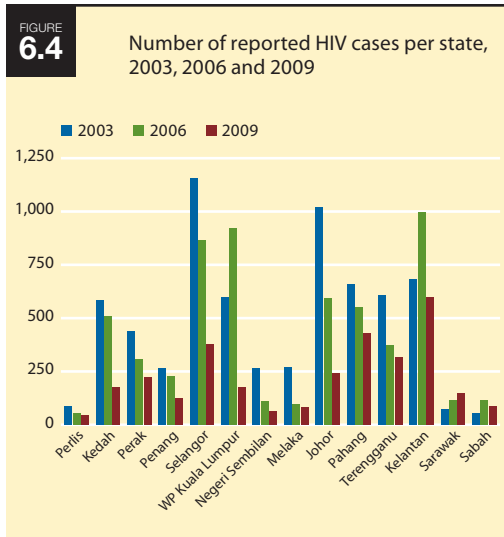
Population	Key findings	Per cent
Injecting drug users (n=630)	HIV prevalence	22.1
	Used sterile injecting equipment	84
	Through outreach programmes	27
	Tested and knew results	33
	Sexually active	50
	Condom use with most recent partner	28
	Paid for sex	15
	Knowledge of modes of HIV transmission	50
Female sex workers (n=551)	HIV prevalence	10.5
	Tested and knew results	20
	Condom use with most recent client	61
	Injected drugs	6
	Had sexual partners who injected drugs	20
	Knowledge of modes of HIV transmission	39
	Reached through intervention programmes	12
Transgendered (n=540)	HIV prevalence	9.3
	Tested and knew results	19
	Sold sex	84
	Condom use with most recent client	95
	Injected drugs	3
	Had sexual partners who injected drugs	12
	Knowledge of modes of HIV transmission	37
	Reached through intervention programmes	65
Men who have sex with men (n=529)	HIV prevalence	3.9
	Condom use	55–72
	More than six male partners in the past six months	26
	Sex with female partners	16
	Knowledge of modes of HIV transmission	80

Source: Malaysian AIDS Council, 2009.

transgender/transsexual (*maknyah*) population. The surveys found the HIV prevalence to be 22.1 per cent among injecting drug users, 10.5 per cent among female sex workers and 9.3 per cent among the transgender/transsexual population (Table 6.2).<sup>1</sup> An independent study of the prevalence of HIV and risk behaviours among men who have sex with men in Kuala Lumpur found the HIV prevalence to be 3.9 per cent.

In addition to MARPs, several other population subgroups are considered vulnerable, mainly due to their association with others from the higher risk groups, or due to the circumstances surrounding them. They include clients of sex workers; intimate partners of MARPs and partners of clients of sex workers; most-at-risk youths; mobile populations, particularly subpopulations of migrants, refugees and trafficked persons; and women and children who are directly affected by the epidemic.

1. MAC/MOH (2010).



Source: Malaysia, Ministry of Health, 2010.

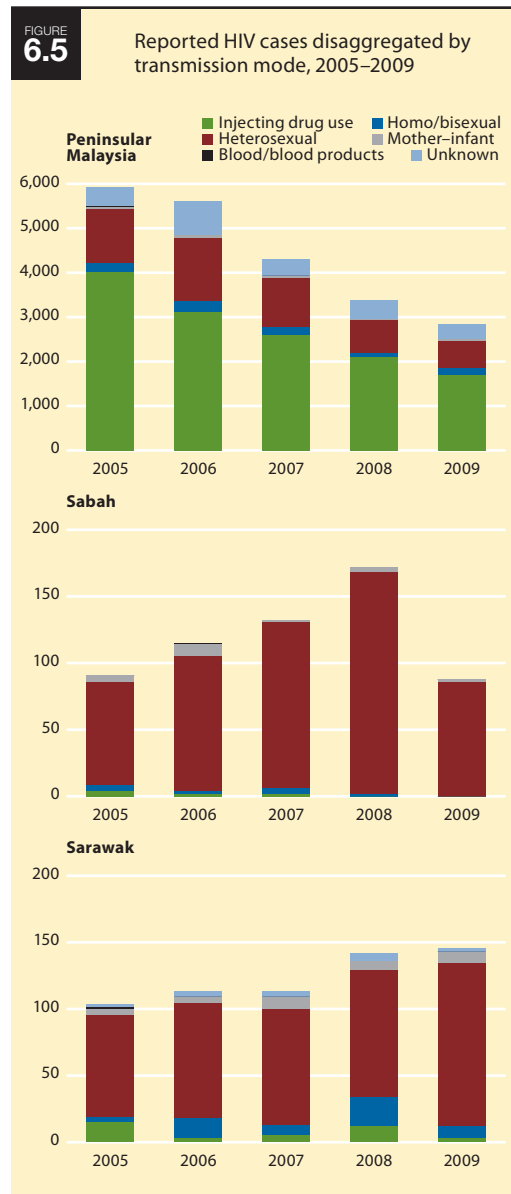
### State epidemics

States show some variations in the number of cases reported. Absolute numbers of cases reported suggest a shift – from most cases reported in the larger more urban states (Selangor and Johor) in 2003, to the more rural east-coast states of the Peninsular Malaysia (Kelantan and Pahang) in 2009 (Figure 6.4).

Marked decreases in notification rates are seen in the states of Pahang, Kuala Lumpur, Kedah and Selangor. Kelantan, one of the less developed states, showed the highest notification rate, with an increase from 42.9 cases per 100,000 population to 47 per 100,000 in 2008.<sup>2</sup> Sabah and Sarawak showed the lowest notification rates in 2008, at 5.3 and 5.8 per 100,000 population, respectively.

States also show marked differences in the HIV transmission pattern. The most significant is the epidemiological pattern of transmission between Peninsular and East Malaysia. While HIV transmission in the Peninsular states is predominantly driven by injecting drug use (especially in the early years of the epidemic, with a shift towards sexually transmitted HIV), Sabah and Sarawak in East Malaysia have the two lowest notification rates but clearly

show predominantly sexual transmission of HIV (Figure 6.5). This is possibly attributed to the relatively low levels of injecting drug use in East Malaysia, which helped avoid the early spread of infection. However, there have been indications that drug use behaviour is becoming more common, signalling the need for a monitoring surveillance of behavioural change, particularly among vulnerable populations. Sarawak is currently showing an



Note: The number of cases is presented on different scales.

Source: Malaysia, Ministry of Health, 2010.

2. MOH (2009).



increasing trend in the number of cases detected annually.

## Response

### *National Strategic Plan*

The Government has made global obligations on HIV-related commitments, such as the 2001 Declaration of Commitment on HIV/AIDS and the Universal Access targets of the 2006 Political Commitment on HIV/AIDS. It recently completed in the final year of its National Strategic Plan for HIV/AIDS 2006–2010, which focuses on six main strategies: strengthening leadership and advocacy, enhancing training and capacity, reducing HIV vulnerability among people who inject drugs and their partners, reducing HIV vulnerability among women, young people and children, reducing HIV vulnerability among marginalized and vulnerable groups, and improving access to treatment, care and support. The next Plan is to be implemented in 2011–2015.

The Ministry of Health, one of the key players in implementing the Plan, has a critical link with the Malaysian AIDS Council, which helms the involvement of various non-governmental and community-based organizations. Other government agencies also have roles in responding to the HIV epidemic: among them, the National Anti-Drug Agency, the Prison Department, the Ministry of Women, Family and Community Development, the Ministry of Education, the Ministry of Youth and Sport, the Royal Malaysian Police, and the Islamic Affairs Division of the Prime Minister's Department.

### *Surveillance*

The surveillance and screening mechanism has grown extensively in Malaysia since 1985. In 2000, close to 673,000 HIV screening tests were carried out, and in 2009 more than 1.2 million. Groups routinely screened for HIV are: women receiving antenatal care in government facilities, blood donors, inmates in drug rehabilitation centres, high-risk prison inmates, drug users, sex workers, confirmed

tuberculosis cases, sexually transmitted infections cases, patients with suspected clinical symptoms, traced contacts of confirmed persons with HIV, premarital couples, migrant workers, and participants in harm-reduction programmes.

HIV surveillance is based largely on notification of newly diagnosed cases from public and private health-care centres as well as the routine HIV screening of pregnant mothers who present to public health antenatal facilities.

The Ministry of Health conducts a routine surveillance system as extensively as possible. The limitations lie mostly in the nature of HIV cases that fall beyond the scope of health management. True to the characteristics of concentrated epidemics, pockets of hidden subpopulation networks are likely to be affected, and the next step for surveillance is focused surveillance that may cover smaller groups of subpopulations in more depth. This entails including behavioural trends as indicators of risk and uncovering "localized" epidemics: that is, high transmission rates within a smaller group of people.

The 2005 MDG report highlighted the need for more comprehensive second-generation surveillance data.<sup>3</sup> As said, the first IBBS was conducted in December 2009. The Ministry of Health is planning to institutionalize the IBBS as part of the national HIV surveillance mechanism.

Antenatal screening and the programme for the prevention of mother-to-child transmission of HIV in Malaysia were launched in 1998. HIV screening coverage at public health-care centres and hospitals under the Ministry of Health increased from 82 per cent in 2000 to 98 per cent in 2009, when HIV prevalence among women screened at public antenatal care services was 0.04 per cent. It is estimated that women who attend such services make up about 70 per cent of antenatal mothers nationwide. Mother-to-child transmission

3. UNCT/EPU (2005).

of HIV accounted for 1.7 per cent of total reported cases in 2009.

### *Access to treatment*

From the start of the HIV antiretroviral therapy (ART) access programme through government health-care services, 9,962 people living with HIV had received ART by the end of 2009.<sup>4</sup>

Cost reduction in first-line treatment for HIV/AIDS has allowed Malaysia to expand its treatment options and provision. The Government provides first-line treatment access for all patients at no charge at government hospitals and clinics. In 2006, it improved access to HIV treatment by providing ART to those living with HIV in prisons and drug rehabilitation centres. The Government partly subsidizes a second-line treatment regime.

Previous treatment provision guidelines defined a CD4 cell count of 200 cells/mm<sup>3</sup> or lower as the indicator for initiating treatment. A recent WHO recommendation revised the treatment initiation criteria to be earlier, at a CD4 count of 350 cells/mm<sup>3</sup>.<sup>5</sup> This would substantially increase the estimated number of people living with HIV in need of treatment.<sup>6</sup> In order for the country to achieve greater coverage, funding commitments and a revision of the current treatment coverage targets (10,000 in 2010 and 15,000 by 2015) will be required. In the current economic scenario, which is limiting funding, providing better coverage of treatment will be one of the bigger challenges in the next five years.

It was previously estimated that at least 300 pregnant women would have been in need of screening for prevention of mother-to-child transmission of HIV in 2009.<sup>7</sup> The antenatal care records showed that 347 pregnant women received such screening in the past two years.<sup>8</sup> Coverage of children who need

ART is estimated to be near 100 per cent, on the assumption that all HIV-positive births are referred to government health-care centres.

### *Harm reduction*

Harm-reduction strategies were introduced in 2005 to curb the spread of HIV among injecting drug users. They consist of drug-substitution therapies, such as methadone maintenance therapy, and a needle and syringe exchange programme. Since its inception, the national methadone maintenance therapy programme has been expanded to 112 government facilities and 14 private clinics, with 10,730 clients registered nationwide.<sup>9</sup> An additional 10,000 individuals are receiving methadone or other modes of drug-substitution therapies through private practitioners. The needle and syringe exchange programme, which began at three pilot sites in 2006, has expanded, and 1.8 million needles and syringes have been distributed to more than 18,000 clients.<sup>10</sup> Although NGOs are the primary implementers of this programme, six government primary health-care centres began providing clean needles in 2008, expanding to 22 centres by the end of 2009.<sup>11</sup>

Some of the positive impacts of these programmes are including the health aspects of illicit drug use in the country's drug policies, improving access to ART for injecting drug users who are HIV infected, reducing HIV-risk behaviour, and offering greater social benefits, including increased employment.<sup>12</sup> To further improve coverage, the programmes need to be scaled up.

Since 2004, drug rehabilitation centres have provided ART to HIV-positive drug users in their institutions. A pilot pre-release methadone maintenance therapy programme was initiated in selected prisons in 2007, subsequently expanded to four additional prisons

4. MOH/UNTG (2010).

5. WHO (2009a).

6. WHO/MOH (2010).

7. WHO/MOH (2010).

8. MOH/UNTG (2010).

9. MOH/UNTG (2010), Kamarulzaman (2009).

10. MOH/UNTG (2010), Kamarulzaman (2009).

11. MOH/UNTG (2010).

12. Kamarulzaman (2009).

and three drop-in centres managed by the National Anti-Drugs Agency. In addition, prison officers receive counselling training and basic HIV knowledge. An evaluation of this programme is under way, to ensure the feasibility of extending it to all prisons in the country.

#### ***Community-based organizations and civil society***

Non-governmental and community-based organizations, as well as other elements of civil society, have a significant impact on the HIV/AIDS situation in Malaysia. Outreach (prevention and welfare) to marginalized populations and sexual and reproductive health are two important interventions within the capacity of community-based organizations. The Malaysian AIDS Council is an umbrella organization that functions as a bridge between NGOs relevant to the HIV/AIDS cause and the Government (through the Ministry of Health). With 52 partner organizations, its two-year strategic plan follows closely the strategies of the National Strategic Plan. One of the key challenges faced by the community-based partner organizations is over-dependency on government funding (through the Ministry of Health), particularly the Malaysian AIDS Council.

In the past five years, advocacy and programming have helped Islamic leaders and organizations become involved in the HIV/AIDS response. With Islamic leaders heavily influential in society generally, their opinions on MARPs and people living with HIV can greatly affect how society views these groups. Not only are Islamic groups becoming more active in existing programmes, they have also set up care and support facilities for Muslim people living with HIV, as well as programmes that engage MARPs. Authorities from the Department of Islamic Affairs, for example, are collaborating with the Malaysian AIDS Council to promote advocacy and knowledge of HIV.

#### ***Voluntary counselling and testing***

Voluntary counselling and testing (VCT) services, officially available in all government health

facilities, are intended to be accessible to the entire population, including vulnerable groups. There were 1,047 government VCT centres at the end of 2009. Anonymous testing services are also offered.

Challenges to VCT service access include stigma and discrimination. Out of fear of discrimination or arrest, MARPs and certain other vulnerable and marginalized populations (such as drug users, sex workers, refugees and undocumented migrants) hesitate to attend the centres. To reach them, some NGOs staffed by trained personnel, such as the PT Foundation, provide essential VCT services.

In increasing access and coverage of VCT services to the general population, pre-marital HIV screening has been made a requirement for all Malaysian Muslims wanting to get married. This programme, begun in a single state in 2001, is now operating in all of them. Introduced by a state religious department, it is currently supported by the Ministry of Health and extended to all individuals who wish to do pre-marital HIV screening voluntarily, irrespective of their religious background. Policy makers and the general public consider pre-marital HIV screening effective in early HIV detection for preventing mother-to-child HIV transmission and for increased HIV awareness. Indeed, the mere provision of VCT services can also help raise awareness, and subsequently act as a surveillance proxy for HIV prevalence.

#### ***Sexual and reproductive health***

Sexual and reproductive health programmes, particularly those targeting women and girls, are opportunities to enhance HIV awareness and prevention efforts.

In the public sector, responsibility for providing sexual and reproductive health education lies with the Ministry of Health and the Ministry of Education. Their approaches include the Family Health Education curriculum, which was launched by the Ministry of Education in 1989, and the Adolescents Health Programme initiated by the Ministry of Health, in turn followed by the PROSTAR (Healthy

Adolescents without AIDS) Programme. The programme provides education and counselling services for youth. The National Population and Family Development Board is the government agency responsible for women's reproductive and sexual health, particularly family planning. Recently, there have been debates over the need for incorporating a more comprehensive and structured sexual and reproductive health in the national education curriculum.<sup>13</sup>

With the complexity and sensitivity of addressing sexual and reproductive health issues limiting the government response, NGOs have stepped in. The largest in this field is the Federation of Reproductive Health Associations, Malaysia. Its programmes cover HIV and sex work, youth and peer education, women and refugees.

### Estimating and projecting the HIV/AIDS epidemic

Malaysia has made several attempts to produce national estimates of HIV/AIDS. Despite the availability of various models for epidemic estimation and several rounds of national consensus workshops on HIV estimation, the outputs are largely inconclusive – for several reasons:

- *Unreliable estimates of population size of MARPs.* Virtually no estimates are scientifically generated, and are based only on expert opinions and general consensus.
- *Inadequate trend data.* Prior to the 2009 IBBS data, indicators of prevalence within different subpopulations were obtained sporadically in a variety of measures that may not be comparable, such as institutional screening data and local surveys.
- *National and geographical representation of estimated numbers.* Even the 2009 IBBS was conducted in only one location (the Klang Valley) and is inadequate for a representation of national HIV prevalence in different subpopulations. (Differences in

access to prevention programmes such as NGO coverage, dynamics of risk behaviour in different settings and existing HIV prevalence need to be taken into account.) A wider coverage of repeated rounds of IBBS will improve trend monitoring, but only in the coming years (it cannot help retrospectively).

- *Limitations of estimation models.* Several HIV estimation models are available, each with limitations. They include lack of country-specificity to address Malaysia's epidemic (as opposed to the generic regional epidemic), the need for extensive data (especially behavioural data, not yet available), and the multitude of assumptions about population size, transmission dynamics and disease progression, (which cannot be verified for lack of data).

### The way forward

Recent years have seen a strong response to addressing the HIV/AIDS epidemic in Malaysia. The key issue is capacity, since the greatest demands are for staff resources and technical capacity, particularly from the Ministry of Health as the principal stakeholder, as well as from local NGOs. Despite the epidemic's showing signs of decline and remaining concentrated among MARPs, according to some indicators such as high levels of behavioural risks and low levels of access to intervention programmes, risks factors remain. Furthermore, even with declining numbers of infections, the number of people living with HIV will continue to rise, increasing treatment needs.

Addressing issues concerning the mostly hidden MARPs requires a multi-faceted approach that goes beyond the health-care system and reshapes the enabling environment. The following areas of recommendation are therefore suggested.

### Increasing targets for treatment coverage

The estimated rise in the number of people needing ART, because of increasing numbers of people living with HIV and the earlier

13. *The Star* (2010).

initiation of ART, signals a need for greater financial commitment to an appropriate ART regimen, following recommended guidelines for people living with HIV. The target of treatment provision is expected to be revised to ensure the achievement of the target for universal access.

### **Maintaining and scaling up harm-reduction programmes for injecting drug users**

The exemplary harm-reduction programmes in Malaysia should, at the very least, be maintained. A scaling-up of the programmes to increase their coverage of services, such as the methadone maintenance therapy and needle and syringe exchange programmes, is needed to continue reducing the number of new HIV infections among injecting drug users. Strategic action plans to achieve this are being rolled out. Strong implementation as well as effective monitoring and evaluation will be crucial.

### **Improving and expanding second-generation HIV surveillance**

The multi-faceted approach to HIV surveillance, pursued through the health-care system and programme-based surveillance, strongly suggests that the number of detected cases is on the decline. This brings out a characteristic of the local HIV epidemic: that it is concentrated within high-risk subpopulations but does not really affect the general population.

The focus now should be on more intensive second-generation surveillance of MARPs, expanded geographically to uncover the heterogeneities of prevalence, risk and behaviour – not only among states but also and among areas with fewer population-based intervention programmes and between rural and urban settings. Such surveillance should also cover prevalence of other sexually transmitted infections and should be repeated to show trends over time – particularly to reflect the impact of interventions on HIV prevalence and the behaviour of high-risk groups.

Malaysia should aim for periodic surveillance at least every two years to monitor the trends of the epidemic. These population-based data can then be used to generate more accurate estimates of the epidemic so that funding and public health policies can be based on evidence and targeted at more incisive measures.

### **Making support to civil society more effective**

The official participation of civil society – as represented by non-governmental and community-based organizations – in policy and decision making has improved in the past few years. With their difficulties in securing funds, however, some organizations have a tendency – particularly the Malaysian AIDS Council and its partner organizations – to be over-dependent on the Government. It is time for the organizations to secure other external funding, such as from the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, other international aid agencies and the private sector. The effectiveness and coverage of these organizations' intervention programmes targeting MARPs need to be taken up a level, as do their technical and organizational capacity.

### **Concentrating on MARPs**

It is vital to focus more on the prevention of transmission through sexual contacts among MARPs. Clear information campaigns addressing the risks of HIV transmission and targeted at specific subgroups, such as sex workers, men who have sex with men and the transgender population, must be developed and supported. They must be supported with access to a full complement of HIV prevention tools, including condoms and water-based lubricants, that enable individuals most at risk to protect themselves and their sexual partners. Non-governmental and community-based organizations that serve these specific communities must be engaged and provided with sufficient support to efficiently address the intervention needs.

### Tackling issues of sexual and reproductive health

Although vulnerabilities are associated with the risk of sexual transmission between MARPs and their partners, the epidemic is unlikely to spread into a sustained general HIV epidemic. The vulnerability of partners can be reduced through sexual and reproductive health awareness programmes that can benefit the general population, beyond the context of HIV/AIDS. Other sexually transmitted infections also need to be addressed adequately. As Malaysia does not show a generalized HIV epidemic, such programmes need not be too intense, but their aim should be wider coverage. Overall education, women's empowerment and increased access to basic health-care services should take a higher priority and be linked to other MDG targets.

### Addressing states' different risks and intervention needs

The Peninsular's east coast states need more interventions. Harm-reduction programmes for drug users need to be intensified, alongside better coverage of HIV, sexual disease and reproductive health programmes. Further east, Sabah and Sarawak are low-prevalence states, primarily, showing sexual transmission of HIV. Addressing sexual and reproductive health issues in both the urban centres and the interiors of these two states is important. The epidemic has not taken off there due to the lower numbers of injecting drug users. This situation needs to be monitored – and kept low.

### Diminishing stigma, discrimination and legal barriers

NGOs repeatedly cite stigma, discrimination and legal barriers in carrying out their programmes for MARPs. The environment should be conducive for effective interventions through continuous discussion and support from various government agencies, especially law enforcement.

### Monitoring and evaluation interventions

It is important that intervention measures are planned and implemented strategically. Quantifiable assessments of cost, effectiveness and impact are essential through strong monitoring and evaluation mechanisms for each programme.

### Improving epidemic estimates to generate more accurate projections

Although existing HIV surveillance data are extensive and likely to reflect the HIV scenario and burden of disease, they may not be an accurate reflection of the spread of the epidemic. There is still a need for good and reliable estimates of annual new infections and HIV prevalence, nationally and among specific MARPs. The importance of generating estimates lies in the use of quantifiable measures for strategic planning, which will entail establishing the baseline (current) epidemic scenario; estimating the impact of the epidemic; projecting future trends under various intervention scenarios, including setting targets for programmes; and analysing intervention strategies' cost-effectiveness.

## Malaria

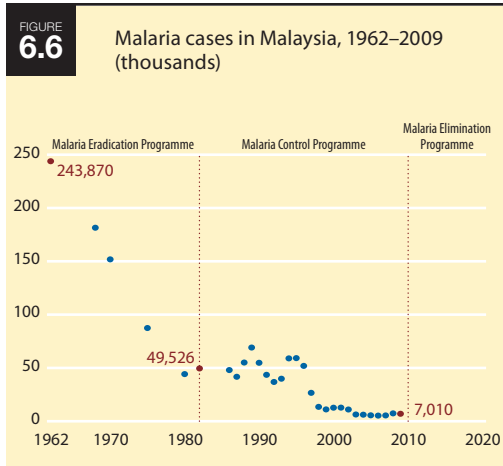
Malaysia has achieved the goal to halt and reverse the incidence of malaria from more than 50,000 cases in 1990 to about 7,000 cases in 2009. The country is progressing towards the MDG-Plus goal of complete elimination by 2020.

Since the launch of the Malaria Eradication Programme in 1967 (to become the Malaria Control Programme in 1982), the number of malaria cases has declined significantly.<sup>14</sup> The number of notified malaria cases has come down from 11,000 cases in 2002 to 7,010 cases in 2009 (Figure 6.6). The incidence of malaria was about 25 per 100,000 population in 2009, with 26 malaria-related deaths for a death rate of 0.09 per 100,000 population.

The incidence of malaria dropped significantly during the late 1990s, but the case fatality rate (total deaths over known cases) has

14. WHO/UNICEF (2005).





Source: Malaysia, Ministry of Health, 2010.

since risen, peaking in 2005. In 2009, it stood at 0.37 per cent (Figure 6.7).

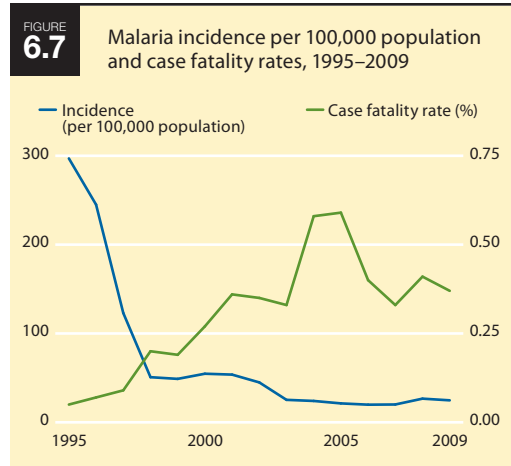
Among the 7,010 malaria cases reported in 2009, 75.1 per cent were males. In 2008, the occupational groups most affected were loggers (39 per cent), labourers (18 per cent) and farmers (15 per cent). Locally acquired malaria cases constituted 82 per cent, and a substantial proportion (12 per cent) was classified as imported. Infection by *Plasmodium vivax* accounted for 52 per cent of the malaria cases, and *Plasmodium falciparum* 31 per cent.

Among the reported cases in 2009, 57.2 per cent (4,009 cases) were in Sabah and 26.0 per cent (1,823 cases) in Sarawak. Thus malaria remains a public health problem in East Malaysia.<sup>15</sup> In 2008, 37.9 per cent of total reported malaria cases in Malaysia were among migrants. In Sabah, this figure was 42.6 per cent, and in Sarawak 9.8 per cent. In Peninsular Malaysia, malaria cases were recorded among the hinterland Orang Asli in the interior areas of Perak, Pahang and Kelantan, but they made up less than 10 per cent of Peninsular Malaysia's total.

Sporadic outbreaks of malaria have also occurred in urban areas among foreign workers. Most of these cases were from Indonesia, the Philippines, Myanmar, Thailand and Pakistan.<sup>16</sup>

15. Sarawak State Health Department (2007).

16. MOH (2010a).



Source: Malaysia, Ministry of Health, 2010.

The Ministry of Health has drawn up a National Elimination of Malaria Action Plan. The target is elimination in Peninsular Malaysia in 2015 and in Sabah and Sarawak in 2020. The strategies for 2011–2020 include early case detection and prompt treatment; close monitoring of imported cases; residual spraying; use of insecticide-treated bednets; environmental management and anti-larvae activities; monitoring of drug resistance; and collaboration with neighbouring countries.

Malaysia is on track to achieve its goal of eliminating indigenous malaria cases among its population by 2020. The Government has shown commitment to control malaria, evident in the introduction of the Malaria Elimination Programme and the success in reducing malaria cases in most endemic areas.<sup>17</sup>

To address the remaining challenges of achieving malaria-elimination status, the Government is implementing the following additional strategies in an integrated, multi-prong approach:

- Identifying high-risk groups and allocating resources and services to detect and treat malaria cases. High-risk groups are indigenous people, traditional villagers, mobile ethnic groups, land-scheme settlers, jungle workers, loggers and immigrant workers from malaria-endemic countries. Special

17. Department of Public Health (2007).

emphasis and priority are on early diagnosis and prompt treatment for these groups. Volunteers in these groups will be identified and trained to take blood, dispense anti-malarial drugs and provide health education.

- Streamlining prevention and control activities among geographical areas with common borders, such as between districts, states and even with neighbouring countries.
- Implementing a continuous surveillance and monitoring system inbuilt with an early warning system to detect and control malaria outbreaks.
- Emphasising health promotion and community participation, especially the use of insecticide-treated bednets.
- Implementing selective, targeted and sustainable vector control.
- Adopting new and appropriate technology, such as rapid diagnostic kits and newer drug combinations.
- Investing in human capital and development through regular training courses for health personnel.
- Internationally, Malaysia has hosted the Inter-country Transfer of Training Technology Workshop for the Asian Collaborative Training Network for Malaria (ACTMalaria) Foundation for member countries since 2002.

## The way forward

The main challenges are not only to keep malaria incidence low but also to push towards the MDG-Plus target of complete elimination by 2020. The following approaches are suggested.

### Implementing the strategies of the Malaria Elimination Programme

Specific elimination strategies for the programme have been identified in accordance with the WHO guidelines on Malaria Elimination. To ensure effective implementation, these strategies and action plans need to be clearly outlined. Monitoring and evaluation mechanisms also need to be put in place.

### Enhancing monitoring and early detection

Despite sustained reduction of malaria incidence over the years, local outbreaks still occur, particularly in Sabah and Sarawak. It is therefore important to strengthen the monitoring and early detection of outbreaks, particularly in high-risk areas and among known vulnerable communities.

### Sustaining vector-control strategies

Vector-control programmes have been in place since the mid-1960s under the malaria control and eradication programmes as well as control programmes for other vector-borne diseases. It is important that the programmes be sustained, even though they have achieved the target of lowering malaria incidence. Vector control is essential in preventing the re-introduction of malaria into malaria-prone areas.

### Improving migrant workers' disease surveillance, intervention programmes and access to health care

The influx of (documented and undocumented) migrant workers from malaria-endemic countries has imported malaria cases into the country. Undocumented immigrants increase the problem because they rarely seek treatment for fear of being detained and deported. Various approaches to malaria surveillance of migrant workers are used, to detect as many cases as possible and give them prompt treatment.

### Procuring new malaria drugs

To control drug resistance, WHO recently released guidelines on treating malaria with artemisinin-based combination therapy.<sup>18</sup> The cost of procuring the new drugs will be significant, but it is important that treatment protocols adhere to such guidelines.

## Tuberculosis

Tuberculosis remains a significant health issue for Malaysia. As with most other developing countries in the past few years, Malaysia

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18. WHO (2010).



is reporting an increasing number of cases, ranging from 1 per cent to 5 per cent annually. In 2009, 18,102 new cases (all forms) were registered through the surveillance system, reflecting a notification rate of 64 cases per 100,000 population.<sup>19</sup>

The number of notified cases (all forms) increased from 10,873 in 1990 to 18,102 in 2009. The notification rate has fluctuated slightly since 1990, though the trend from the past six years is showing a slow increase (Figure 6.8). The number of reported tuberculosis-related deaths in 2009 was 1,582, up from 942 in 2000 (Figure 6.9). Figure 6.10 presents WHO-estimated prevalence, incidence and death rates per 100,000 population from 2000 to 2007.

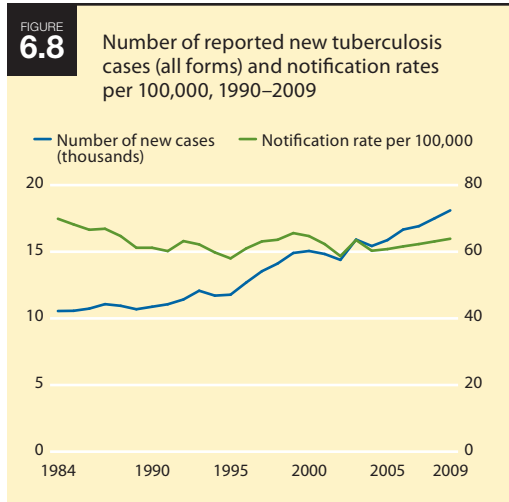
The number of tuberculosis cases is markedly higher in Sabah than in any other state, although it has seen a significant reduction from 194.4 cases per 100,000 in 1990 to 107.8 in 2009 (Figure 6.11). Selangor had the second-highest number of reported cases (2,342) in 2009 but remains among the states with the lowest notification rate per 100,000 population. Its trend, however, has been on the increase since 2003.

Overall, while Sabah and Sarawak have shown a decline in notification rates, states in the Peninsular have seen a slight but gradual increase. In 2009, differences between states across the country were less marked than in earlier years, and seven states had notification rates above the national rate of 63.9 per 100,000.

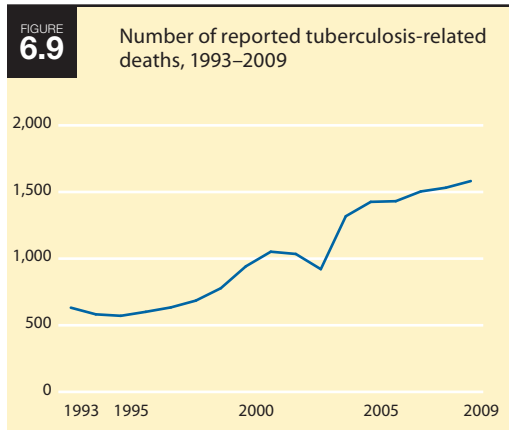
The Stop TB Partnership<sup>20</sup> has endorsed the MDG targets to diagnose at least 70 per cent of people with sputum smear-positive tuberculosis – that is, under the directly observed treatment, short-course (DOTS) strategy – and to cure at least 85 per cent by 2005. These are targets set by the WHO World Health Assembly. Globally in 2005, an

19. MOH (2010b).

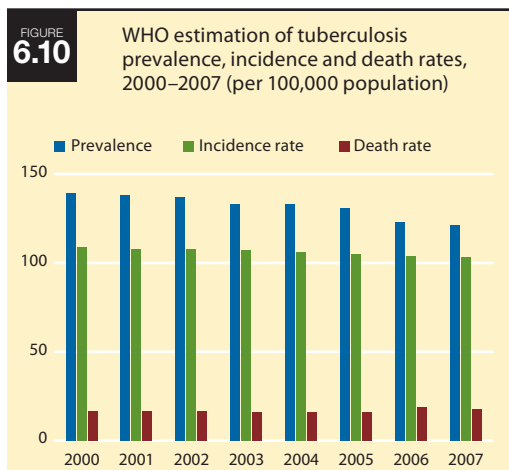
20. The Stop TB Partnership, established in 2001, comprises a network of international organizations, countries, donors from the public and private sectors, governmental and non-governmental organizations and individuals.



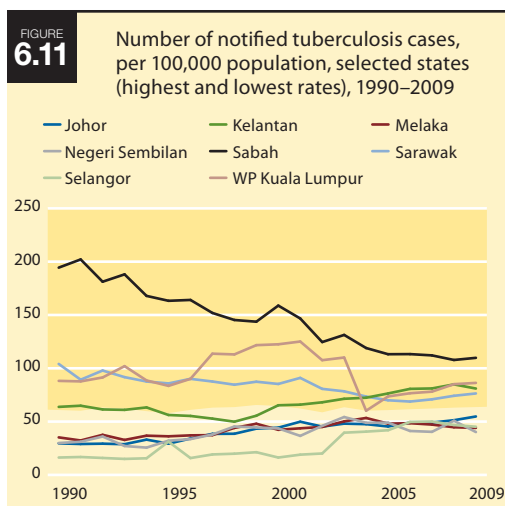
Source: Malaysia, Ministry of Health, tuberculosis surveillance data, 2010, TB/Leprosy Sector.



Source: Malaysia, Ministry of Health, tuberculosis surveillance data, 2010, TB/Leprosy Sector.



Source: WHO, 2009, *Global Tuberculosis Control, 2009: Epidemiology, Strategy, Financing*. Geneva.



Note: The shaded area indicates rates above the national average.

Source: Malaysia, Ministry of Health, tuberculosis surveillance data, 2010, TB/Leprosy Sector.

estimated 60 per cent of new smear-positive cases were treated under DOTS, ranging from 35 per cent in the WHO European Region to 76 per cent in the Western Pacific Region.

Malaysia surpassed the targets for case detection from 2007, but also had a decrease in the DOTS cure rate from 2000 to 2007, to below target (Table 6.3). This decrease is partially due to a higher proportion of patients lost to follow-up and to weaknesses in data management. (However, the states of Sabah, Labuan and Pulau Pinang attained both the case detection and cure rate targets.)

### Multi-drug-resistant tuberculosis

Multi-drug-resistant tuberculosis remains a treatment problem in Malaysia, just as it is worldwide. Even though the incidence was below 1 per cent of total cases in 2004–2008, the number of cases showed an increase, with, for example, 41 cases in 2007 and 56 cases in 2008. Data on DOTS adherence showed that in 2008, of total new cases, 3.7 per cent defaulted on treatment and 4.7 per cent were lost to follow-up or referred out. Poor adherence to treatment must be monitored and reduced to avoid increasing drug resistance.<sup>21</sup>

21. WHO (2010).

**TABLE 6.3**

Tuberculosis case detection rates and cure rates, selected years, 2000–2008

Year	Case detection rate (Target: 70%)	Cure rate (DOTS) (Target: 85%)
2000	70.1	89.7
2005	68.9	86.2
2007	75.5	74.3
2008	75.3	77.6

Source: Malaysia, Ministry of Health, tuberculosis surveillance data, 2010, TB/Leprosy Sector.

### TB-HIV co-infections

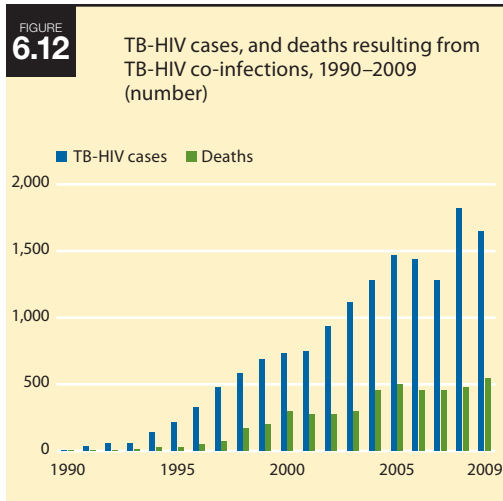
An area of concern is the increasing number of TB-HIV co-infections. All HIV-positive patients on the ART register have been screened for tuberculosis. In 2009, there were 1,644 cases of TB-HIV co-infections (9.1 per cent of total tuberculosis cases) (Figure 6.12).

The Ninth Malaysia Plan outlines priorities towards tuberculosis and HIV, with the aim of achieving MDG 6. Since the Ministry of Health Disease Control Division was formed, national tuberculosis and HIV programme collaboration has strengthened. Such joint efforts, which started in 2010, included the formation of a National Committee for TB-HIV, implementation of a joint TB-HIV strategic plan and the development of the National AIDS Registry with a tuberculosis data management component. Primary health-care services and hospitals provide tuberculosis and HIV screening and treatment services. Government health-care facilities offer TB-HIV patients universal access to ART at no cost.

Existing monitoring of reported tuberculosis cases shows that up to 10 per cent of tuberculosis cases are detected among foreigners (illegal migrants, refugees and permanent residents).

### The way forward

The Government provides free tuberculosis treatment services through its network of public health facilities, following the principles of the DOTS strategy. As a result of sustained efforts to provide tuberculosis services throughout the country at no cost for tuberculosis



Source: Malaysia, Ministry of Health, 2010.

patients, Malaysia has now reported 98 per cent DOTS coverage. But the tuberculosis epidemic is currently a global challenge with issues such as drug resistance, TB-HIV co-infection and mortality, and infection control.<sup>22</sup>

Malaysia is working towards a five-year National Strategic Plan for TB Control 2011–2015, adapted from the WHO Stop TB Strategy. The current integrated health services for the Tuberculosis Control Programme, in place since 1995, have not been fully integrated in many parts of Peninsular Malaysia. In some states, there are no clear organizational structures and this leads to uncoordinated activities to monitor the implementation of control programmes at the state and district levels. The main reasons are inadequate human, financial and infrastructure resources. These are cause for concern to programme management, and may compromise case detection, diagnostic capacity and treatment efficiency. Approaches recommended to achieve further progress against tuberculosis are as follows.

### Maintaining the intensive response to combat tuberculosis infections

While HIV/AIDS has received much attention in recent years, the response to other

communicable diseases must be maintained, if not scaled up. Tuberculosis in particular is significant in its co-infection with HIV.

### Addressing different trends in different states

While tuberculosis notification has dropped substantially in Sabah, where it was previously very much higher than the national average, cases in states in the Peninsular are showing a slow but gradual increase. A contributing factor is the intensity of state-level tuberculosis management responses. In the Peninsular, some complacency may have crept in, and programmes need to be revived.

### Improving DOTS treatment adherence

The potential for increasing numbers of cases, reduced uptake of DOTS and the development of multi-drug resistance (on the rise globally) are among the key issues. Overall adherence to the DOTS strategy needs to be ensured.

### Guidelines on surveillance and treatment of migrants

The role of migrants – particularly undocumented migrants – and the management of tuberculosis prevention and policy needs to be looked at more closely. The bulk of treatment default and loss to follow-up from DOTS is likely to be attributed to cases that are detected among migrants. Whether workers (especially undocumented migrants) are deported on tuberculosis detection or simply move to a different job would have implications not only for the development of drug resistance but also for the consequent spread of the infection through exposure to others.

### Clinical management of TB-HIV co-infections

Because the main challenges to the clinical management of TB-HIV co-infections are immune reconstitution and drug interactions, infectious-disease physicians must be well trained and encouraged to conduct more research and surveillance.

22. WHO (2009c).

## Annex 6.1

**TABLE A6.1** MDG 6 targets and indicators

Target	Indicator	Notes
<b>Target 6A:</b> Have halted by 2015 and begun to reverse the spread of HIV/AIDS	<b>6.1</b> HIV prevalence among population aged 15–24 years	The measure of HIV prevalence among the general population (disaggregated by age) is better used in countries that present a “generalized” HIV epidemic. Malaysia, however, shows a clear characteristic of a “concentrated” HIV epidemic, where more appropriate indicators of prevalence would be those among specifically identified as “most-at-risk populations”. Where available, these measures are presented (also in subsequent indicators). The alternative measure of HIV prevalence is the use of national estimates of the epidemic. This requires the use of specific HIV modelling tools with input data based on population-specific surveillance. To date, Malaysia does not have a conclusive set of estimates. So, data available from the HIV surveillance system are presented.
	<b>6.2</b> Condom use at last high-risk sex	The indicator on condom use is presented as disaggregated by most-at-risk populations. However, data are currently inadequate to show trend over time.
	<b>6.3</b> Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS	Data are inadequate to show knowledge level among the specified age group, but there are some data on knowledge among most-at-risk populations.
	<b>6.4</b> Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years	Not relevant.
<b>Target 6B:</b> Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	<b>6.5</b> Proportion of population with advanced HIV infection with access to antiretroviral drugs	The absolute numbers of people living with HIV who are on antiretroviral treatment is presented, based on the Ministry of Health database. Measures of proportions depend on denominators that are produced from modelled estimates. A rough estimated measure is available and presented, but its accuracy is still uncertain.
<b>Target 6C:</b> Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	<b>6.6</b> Incidence and death rates associated with malaria	Data are available from the malaria surveillance database.
	<b>6.7</b> Proportion of children under 5 sleeping under insecticide-treated bednets	Not relevant.
	<b>6.8</b> Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs	Not relevant.
	<b>6.9</b> Incidence, prevalence and death rates associated with tuberculosis	Data are available from the tuberculosis surveillance database.
	<b>6.10</b> Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	Data availability is not complete. Those available from the surveillance database (recent years) are presented. The measure is based on a denominator of estimated total number of tuberculosis cases, which may not be accurate.

TABLE  
A6.2

## Progress and status of MDG 6 targets

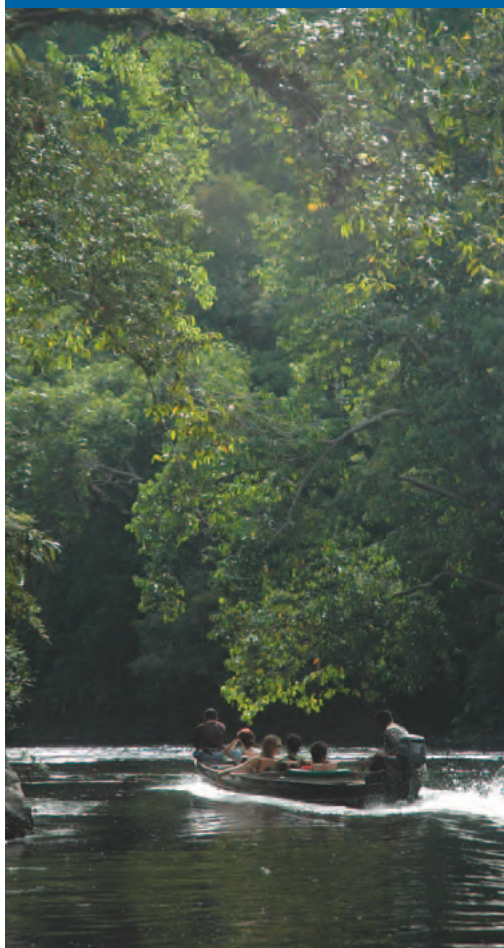
Status (2010)	Indicators	Notes
<b>6a: Have halted by 2015 and begun to reverse the spread of HIV/AIDS.</b>		
Achieved target to halt; and possibly has either reversed or at least able to reverse by 2015 the spread of HIV	<p>Notification rates: the number of cases detected dropped from 28.5 cases per 100,000 population in 2002 to 10.8 per 100,000 in 2009</p> <p>Case detection: the share of cases detected of the total screened fell from 0.82% in 2002 to 0.25% in 2009</p> <p>Reported AIDS-related deaths: declined from 1,374 deaths in 2007 to 805 in 2009</p>	<p>The Ministry of Health had previously set the target of reducing the notification rate to 11 cases per 100,000 by 2015, but this was further adjusted to 9 cases per 100,000 population.</p> <p>Alternative estimates of incidence using modelling methods are currently inconclusive, due to various limitations, to indicate trend.</p> <p>Data on population-level prevalence and behaviour are available only for 2009, restricted to the Klang Valley area. Insufficient trend data.</p>
<b>6b: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.</b>		
Currently not yet achieved; possible to achieve by 2015 but requires increased financial commitment and a revision of targets	<p>By end of 2009, 9,962 people living with HIV have received antiretroviral treatment</p> <p>Provision of first line treatment is at no cost, and second line treatment is partially subsidized by the Government</p> <p>Previous target and financial commitment ensures provision of treatment to a targeted 15,000 by 2015</p>	<p>Measurement of treatment coverage is dependent on estimates of people living with HIV in need of treatment. Previous estimates puts the coverage rate at 73% (coverage of people living with HIV with CD4 counts of &lt; 200 cells/mm<sup>3</sup>. The accuracy of the estimates is currently under review.</p> <p>WHO issued a revision of treatment guidelines at the end of 2009, in which people living with HIV are eligible for treatment earlier, at CD4 counts of &lt; 350 cells/mm<sup>3</sup>. This will increase treatment needs, thus reducing the coverage rate.</p>
<b>6c: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.</b>		
<p>Have achieved target of halting and reversing the incidence of malaria</p> <p>Have not achieved target of halting and reversing the incidence of tuberculosis. Unlikely to achieve by 2015</p>	<p>Incidence of malaria fell from more than 50,000 cases in 1990 to about 7,000 cases in 2009</p> <p>Malaria deaths rates are very low, at 0.09 per 100,000 (2009). However, case fatality rates (number of deaths per total cases) have been on an increase, albeit at low rates (from 0.05% in 1995 to 0.37% in 2009)</p> <p>Number of reported tuberculosis cases has been increasing since 2004, ranging from 1%–5% annual increase</p> <p>Number of deaths has increased from 571 in 1995 to 1,582 in 2009</p> <p>Tuberculosis case detection rate was 70.1% in 2000, increasing to 75.3% by 2008</p> <p>Tuberculosis cure rate under DOTS was 77.6% in 2008</p>	<p>Currently making efforts and progressing towards an MDG-Plus goal of complete elimination of malaria by 2020.</p> <p>About 82% of cases were locally-acquired, and 12% were imported cases.</p> <p>Geographical differences in trends. Previously high prevalence was seen in the state of Sabah; but notification rate has been on a decrease in Sabah, but gradually increasing in most other states.</p> <p>Targets set by the Stop TB Partnership: to diagnose at least 70% of people with sputum smear-positive tuberculosis (under DOTS), and cure at least 85% by 2005.</p>

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# MDG 7

## Ensure environmental sustainability



### MDG 7 has four targets:<sup>1</sup>

- Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
- Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.
- Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.
- By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.

*Our Common Future*, the report of the United Nations World Commission on Environment and Development published in 1987, states that sustainable development meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Achieving sustainability requires focused, coordinated and systematic efforts across all levels of government and sectors to prioritize the environment and its natural resources in order to minimize negative impacts. Efforts will require rationally using land and judiciously consuming natural resources; effectively managing urbanization and associated issues of providing cost-effective utilities, efficient public transport and waste disposal; and shifting industrialization towards a low-carbon and low-waste paradigm.<sup>1</sup>

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1. The chapter annex lists the 10 indicators and the standard definitions for them, and any adjustments to them in this chapter. Complete data were not always available for all indicators for the period under review, 1990 to 2010. Consequently, there are variations in the range of the trend analysis between indicators. Disaggregated data, or aggregate data



Malaysia has already surpassed the MDG 7 targets by formulating policy and legislation on biodiversity and environmental sustainability, and by implementing programmes and projects to enhance the quality of life of its people. It will make further efforts at coordination, enforcement, monitoring and evaluation.

As a developing country with vast natural resources, Malaysia has long recognized the need to fulfil development demands while sustaining the environment. It has expressed this need in national economic planning since the Third Malaysia Plan (1976–1980). It has maintained this thrust in subsequent plans, including the Tenth Malaysia Plan (2011–2015), where the concept of sustainable development is integrated practically into national policies.

At the sectoral level, too, it has followed this approach. For the private sector, it has granted funding and fiscal incentives to encourage pro-environment measures.

## Principles of sustainable development

### Status and trends

The Government of Malaysia recognizes the importance of sustainable development. It has endorsed the major global framework for sustainable development of Agenda 21, the Rio Declaration on Environment and Development, and the statement of principles for the sustainable management of forests, adopted by the United Nations in 1992. It also participates at meetings of the United Nations Commission for Sustainable Development. In addition, the country is party to various multilateral environmental agreements as well as regional initiatives (Table 7.1).

### National initiatives

The Government has addressed sustainable development through a variety of policy instruments.

The Ninth Malaysia Plan states that “environmental stewardship will continue to be promoted to ensure that the balance between development needs and the environment is maintained. Greater focus will be placed on preventive measures to mitigate negative environmental effects at source, intensifying conservation efforts and sustainably managing natural resources.”

The Tenth Malaysia Plan states that the Government’s agenda “will be one of protecting the environmental quality of life, caring for the planet, while harnessing economic value from the process. In achieving this, among others, the Government will be guided by sustainable production practices to decouple economic growth from environmental degradation.”

Sustainability is one of the three pillars of the New Economic Model, which, launched by the Prime Minister in March 2010, aims to propel Malaysia to developed-country status.

Providing other frameworks for the environment are the National Policy on Environment 2002 and the National Physical Plan 2005. The policy aims to enable continued economic, social and cultural progress and to enhance Malaysians’ quality of life through environmentally sound and sustainable development. For its part the plan identifies environmentally sensitive areas in Peninsular Malaysia, and aims to strengthen national planning by offering a spatial dimension to national development planning. The plan has been extended to state government and local authority levels.

All local authorities adopted Local Agenda 21 in 2000, a programme of local initiatives supporting Agenda 21, the blueprint for action for sustainable development in the 21st century.

Federal Government has also provided funding and fiscal incentives to the private sector for environmental initiatives, while applying economic instruments such as cess and adopting the “polluter pays” principle in, for example, forestry, the palm oil industry and agriculture.

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broken down by state, were not available for some indicators but are provided wherever appropriate.



TABLE  
7.1

Multilateral environmental agreements adopted by Malaysia, with the Ministry of Natural Resources and Environment as the focal point

Title	Date of adoption of agreement	Date Malaysia ratified (r) or acceded (ac)
Convention on Wetlands of International Importance especially as Waterfowl Habitat (RAMSAR Convention)	2 February 1971	10 December 1994 (ac)
Convention on International Trade in Endangered Species of Wild Flora and Fauna	3 March 1973	20 October 1977 (ac)
Vienna Convention for the Protection of the Ozone Layer	22 March 1985	29 August 1989 (ac)
Montreal Protocol on Substances that Deplete the Ozone Layer (1987)	16 September 1987	29 August 1989 (ac)
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	22 March 1989	8 October 1993 (ac)
Convention on Biological Diversity	5 June 1992	24 June 1994 (r)
United Nations Framework Convention on Climate Change (UNFCCC)	9 May 1992	13 July 1994 (r)
Kyoto Protocol to the UNFCCC	11 December 1997	4 September 2002 (r)
Prior Informed Consent (Rotterdam Convention)	10 September 1998	4 September 2002 (ac)
Cartagena Protocol on Biosafety	29 January 2000	3 September 2003 (r)
Stockholm Convention on Persistent Organic Pollutants	23 May 2001	24 May 2000 (ac)
ASEAN Agreement on Transboundary Haze Pollution	10 June 2002	3 December 2002 (r)

## Sectoral initiatives

Table 7.2 presents some policy instruments adopted at the sector level to integrate environmental sustainability, based on themes of the United Nations Commission on Sustainable Development.

## Analysis

As a measure of sustainability, the *Living Planet Report 2008* reveals that Malaysia's ecological footprint – an indicator for consumption – was 2.4 global hectares a person in 2005.<sup>2</sup> This is lower than the average global footprint of 2.7 global hectares a person but slightly higher than the threshold of sustainability for that year, which was 2.1 global hectares a person.

The Environmental Performance Index (EPI), led by Yale and Columbia universities, is based on seven indicators for ecosystem vitality and three indicators for environmental health measures. The 2010 EPI ranked Malaysia 54 of 163 countries,<sup>3</sup> in 2008, 27 of 149 countries, and in 2006, 9 of 133 countries. (The EPI's predecessor, the Environmental

TABLE  
7.2

Sector policy instruments

Sector	Policy instrument
Human settlements and urban planning	National Physical Plan 2005 National Urbanisation Policy 2006 Malaysian Urban Indicator Network 2004
Agriculture	Third National Agriculture Policy 1998–2010
Biodiversity	National Policy on Biological Diversity 1998 National Wetlands Policy 2004 Common Vision on Biodiversity 2009
Forest	National Forestry Policy 1978 (revised 1992)
Sanitation and water/freshwater	Baseline Information on Environmental Health for Peninsular Malaysia 2007
Climate change	National Policy on Climate Change 2009
Energy and transport	National Energy Policy 1979 National Green Technology Policy 2009 Renewable Energy Policy and Action Plan 2010

Sustainability Index, in 2005 ranked Malaysia 38 of 146 countries.) As the EPI is not based on data sourced directly from the relevant agencies, Malaysia is looking to develop its own environmental performance index.

2. WWF International and others (2008).

3. Yale Center for Environmental Law and Policy (2010).

While the above indices show variations in international assessments of Malaysia's sustainability performance, they are points of reference. The fall in rankings in the EPI serves as an indicator of potential gaps between the availability of policy instruments and their implementation.

## Reducing biodiversity loss

### Policies

Malaysia had a long history of conserving biological diversity. For example, it gazetted the first protected area in 1902 and enacted the Wildlife Protection Act in 1972. In 1994, it ratified the Convention on Biological Diversity and subsequently the Cartagena Protocol on Biosafety in 2003. It has incorporated biodiversity dimensions into

TABLE 7.3

Biodiversity and national policies and plans

Instrument	Details
Five-year Malaysia Plans	Incorporate environment and sustainability issues (since the Third Malaysia Plan).
National Policy on Biological Diversity (1998)	Aims to conserve biodiversity and ensure that it is used sustainably for the continued progress and socio-economic development of the nation. It gives directions on managing and conserving biodiversity with 15 strategies and 85 action plans.
National Physical Plan (2005)	States that "A Central Forest Spine shall be established to form the backbone of the Environmentally Sensitive Area (ESA) network" in Peninsular Malaysia. The main objective of the Central Forest Spine is to restore connectivity through the implementation of linkages between the four major forest complexes (Policy 19).
Common Vision on Biodiversity (2009)	Aims to explain what biodiversity is, why it is important and the measures required to ensure a constant provision of ecosystem services essential for human livelihoods.
The New Economic Model (2010)	The Eighth Strategic Reform Initiative constitutes a rebalancing strategy to ensure sustainable growth.

policies and plans at national and state levels (Tables 7.3 and 7.4). Sectoral policies include the National Forestry Policy 1978 (revised 1992), the National Wetlands Policy 2004 and the National Urbanisation Policy 2006.

### Governance

At federal level, the Ministry of Natural Resources and Environment is responsible for biodiversity management. The Department of Wildlife and National Parks, Department of Marine Park Malaysia, Forestry Department Peninsular Malaysia and Forest Research Institute Malaysia are within its purview.

As biodiversity management falls under the jurisdiction of the states in the federal constitution, various state agencies complement the efforts of the Federal Government. These include the state forestry departments and protected area management authorities, such as the Forest Department of Sarawak, Sarawak Forestry Corporation, Sabah Forestry Department and Sabah Parks. Sabah and Sarawak have each established a biodiversity centre, in part to promote research into applying potential uses of biodiversity in medicine and other fields.

TABLE 7.4

Biodiversity and regional initiatives

Regional initiative	Details
Heart of Borneo	A voluntary transboundary initiative that aims at conserving and managing the transboundary highlands of Borneo and parts of the adjacent foothills and lowlands, which straddle the borders of Brunei Darussalam, Indonesia and Malaysia. It covers approximately 240,000 sq km of ecologically interconnected rainforest in the island of Borneo.
Sulu–Sulawesi Marine Ecoregion and Coral Triangle Initiative	The Coral Triangle Initiative covers nearly 5.9 million sq km of ocean across all, or parts of, the seas of six countries – Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands and Timor-Leste. The initiative aims to protect diverse marine ecosystems, keep them vibrant and healthy and provide food and livelihood for future generations.

The National Biodiversity–Biotechnology Council was established in 2001 to coordinate the management of biodiversity between the federal and state governments. In 2010, it was restructured as the National Biodiversity Council.

### Recent initiatives

Malaysia is now drafting a national law on access to biological resources and benefit sharing, enabling the country to accrue benefits from using its biological resources. This is in line with the New Economic Model, which re-emphasized the importance of Malaysia leveraging its rich biological resources. It is also developing an inventory of biological resources and associated “traditional knowledge”. This knowledge has huge value for the sustainable use of diversity, and so needs to be preserved for future generations.

Malaysia’s biodiversity is also being harnessed for ecotourism, which is widely promoted. Ecotourism helps to promote sustainable use of resources, allowing tourists to experience the wealth of biodiversity at first hand and generating an appreciation for it. Ecotourism also provides an alternative livelihood for indigenous communities. One example is the Tagal system (for conserving fish stocks in rivers), which has been practised for many generations among the Dusun community in Sabah. This system prohibits fishing in the river for one or two years, to ensure cleanliness of the river and maintain sustainable fish stocks. An incentive for responsible use is the income from fishing and, latterly, from ecotourism.

## Proportion of land area covered by forest

### Status and trends

The proportion of forested land area in Malaysia was 62.4 per cent in 2010 (Table 7.5), based on the definition of forest of the Food and Agriculture Organization of the United Nations (FAO) (see chapter annex).

Permanent reserved forest accounted for 71.8 per cent of total forested area in 2009. Such forest is classified as “production forest” and “protection forest”. Areas within the permanent reserved forest licensed for logging are located in the production forest, and the protection forest areas within the permanent reserved forest are managed for conservation values. The National Forestry Act 1984 (revised 1992) provides functional classes of permanent reserved forest for soil protection, soil reclamation, flood control, water catchment, sanctuary for wildlife, virgin jungle, amenities, education, research and for federal purposes.

### Analysis

Malaysia will continue to conserve and use its biological resources sustainably for the socio-economic development of its people. It is committed to ensure that at least 50 per cent of the land area remains as forest cover.

## Carbon dioxide emissions, total, per capita and per US\$1 GDP (PPP)

In 2000, the Ministry of Science, Technology and Environment completed the Initial National Communication under the UNFCCC and compiled a report detailing the country’s

TABLE  
7.5

Total forested area, 1990–2010

Category	1990	2000	2005	2010
Total forested area (thousands of hectares)	22,495	21,710	21,009	20,575
Total land area of country (thousands of hectares)	32,975	32,975	32,975	32,975
Proportion of land area covered by forest (%)	68.2	65.8	63.7	62.4

Note: Estimation based on Global Forest Resources Assessment 2010, according to the FAO definition.

Source: Global Forest Resources Assessment 2010, Country Report Malaysia.

greenhouse gas inventory for the base year 1994. The report also identified impacts on climate change and suitable strategies and recommendations to address them. The Second National Communication was completed in 2010.

### Carbon dioxide emissions

Malaysia's per capita carbon dioxide emissions from fuel combustion increased by 32.1 per cent from 2000 to 2006 (Table 7.6). Its emissions were higher than those of the Philippines, Indonesia and Thailand, but lower than those of Singapore, Brunei Darussalam and various developed economies.

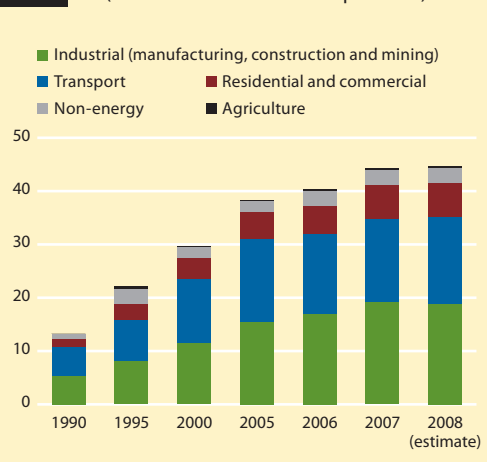
### Energy

By sector in 2008, industry (manufacturing, construction and mining) used the most energy (42.6 per cent) followed by transport (36.5 per cent), residential and commercial (13.8 per cent), non-energy (6.4 per cent) and agriculture (0.7 per cent; Figure 7.1).

Per capita energy use increased from 1.273 million tonnes of oil equivalent per million population in 2000 to 1.632 million tonnes in 2007 (Table 7.7).

Energy intensity (that is, energy use per unit of GDP) improved solidly in Malaysia in the decade to 2005 (Table 7.8).

**FIGURE 7.1** Final energy use by sector, 1990–2008 (millions of tonnes of oil equivalent)



Note: 2008 is an estimate.

Source: National Energy Balance, Malaysia. Ministry of Energy, Green Technology and Water 2008.

### Analysis

*Carbon dioxide emissions.* These are expected to increase unless efforts to reduce energy use are intensified. As South-East Asia's biggest recipient of Clean Development Mechanism projects under the UNFCCC as of November 2010, Malaysia<sup>4</sup> has the potential to reduce its emissions. Of the 86 registered projects aimed at offsetting emissions in industrialized countries, 59 are in energy industries, and have replaced

**TABLE 7.6** Carbon dioxide emissions from fuel combustion, selected countries, 2000–2006 (metric tonnes of CO<sub>2</sub> per capita)

Country	2000	2001	2002	2003	2004	2005	2006
Philippines	1.04	0.99	0.99	0.90	0.93	0.90	0.79
Indonesia	1.16	1.26	1.31	1.28	1.44	1.46	1.46
Thailand	3.32	3.55	3.74	3.96	4.29	4.30	4.30
Malaysia	5.44	5.75	5.80	6.79	6.92	7.15	7.19
United Kingdom	9.32	9.46	9.08	9.23	9.25	9.19	9.40
Japan	9.92	9.82	9.92	10.09	10.27	10.17	10.11
Singapore	13.03	12.82	12.28	11.64	11.91	13.76	12.83
Australia	17.19	16.65	17.15	17.11	16.96	18.01	18.12
Brunei	19.57	18.15	17.61	16.84	16.61	15.80	15.47
United States	20.16	19.56	19.58	19.36	19.53	19.48	18.99

Source: United Nations Statistics Division, series data, Millennium Development Goals Indicators, accessed 15 April 2010, from <http://unstats.un.org/unsd/mdg/SeriesDetail.aspx?srid=751>.

4. UNFCCC (2010).

TABLE  
7.7Per capita energy use, selected countries,  
2007

Country	Energy use per capita (Mtoe/ million population)	Increase in per capita energy use, 2000–2007 (%)
Philippines	0.260	17.7
Indonesia	0.643	12.2
Thailand	1.092	34.7
Malaysia	1.632	28.2
Brunei	1.925	–9.7
Singapore	2.880	–54.2

Mtoe = million tonnes of oil equivalent.

Source: National Energy Balance, Malaysia. Ministry of Energy, Green Technology and Water, 2008.

TABLE  
7.8Energy use per GDP, 1995–2005  
(tonnes of oil equivalent per million US\$  
at constant 2000 price)

Economy	1995	2000	2005
Hong Kong, China	116.6	91.1	74.7
Thailand	214.4	260.1	180.6
Ireland	229.0	129.1	94.7
Malaysia	288.1	260.1	239.0
Singapore	358.5	234.9	240.5

Source: Earth Trends, World Resources Institute, accessed 1 May 2010 from <http://earthtrends.wri.org/text/energy-resources/variable-668.htm>.

fossil fuels with renewable energy sources. The other 27 are agriculture related, using biomass a source of energy and capturing methane.

Determination at the highest level of Government helped set up a Cabinet Committee on Climate Change in 2008. The following year, Malaysia adopted an indicator of a voluntary reduction of up to 40 per cent of emissions intensity of GDP by 2020 compared with 2005 levels, conditional on receipt of technology transfer and finance from Annex I Parties (or developed economies). A roadmap to achieve this indicator is being developed. Further, a National Policy on Climate Change was launched on 30 August 2010, which aims to ensure climate-resilient development.

*Energy.* Key policies guiding energy-related activities since 2000 include the Fifth Fuel

Policy in 2001. It set a target of about 5 per cent of total electricity generation, or about 600 megawatts of installed capacity, to be from renewable energy sources by 2005. The Eighth and Ninth Malaysia Plans have also highlighted the need for renewable energy and energy efficiency.

The restructuring of the Ministry of Energy, Water and Communications into the Ministry of Energy, Green Technology and Water in 2009 and the adoption of the National Green Technology Policy in the same year also marked Malaysia's commitment in this area.

The creation of the National Green Technology Council strengthened these initiatives. Chaired by the Prime Minister, the council is a platform for a cross-sectoral approach. It involves various ministries and agencies such as the Prime Minister's Department (in charge of oil and gas) and the Ministry of Transport. The transport sector in 2008 accounted for 36.5 per cent of final energy use. As policy responses, Parliament passed the Land Public Transport Act and Land Public Transport Commission Act in 2010 to bring all matters on land authority under a single authority, with the primary aim of improving public transport and ridership. In 2010, the council was renamed the National Green Technology and Climate Change Council.

*Energy efficiency and renewable energy.* A subset of the National Green Technology Policy, the Renewable Energy Policy and Action Plan were adopted in 2010 to provide the impetus for greater use of indigenous renewable energy sources in electricity generation. It complements existing policies, including the Fifth Fuel Policy.

A Renewable Energy Act incorporating the feed-in-tariff mechanism is expected to be passed in 2011. With a clear buy-back method, this mechanism will probably spur developers of renewable energy to invest in the field, and is projected to avoid the cumulative generation of 42 million tonnes of CO<sub>2</sub> in the power sector by 2020.

The completed Malaysian Industrial Energy Efficiency Improvement Project and the Bio-mass Power Generation and Co-generation in the Palm Oil Mills Project have enhanced the public and private sectors' capacities to implement energy efficiency and renewable energy projects.

*Financial incentives.* Since the national budget in 2001, the Government has offered fiscal and financial incentives to encourage the use of renewable energy and to improve energy efficiency. Companies providing energy conservation services can apply for "pioneer status" with a 100 per cent tax exemption of statutory income for 10 years, or an investment tax allowance of 100 per cent on the qualifying capital expenditure incurred within five years. In addition, import duty and sales tax exemptions are given for imported equipment used in the related project. Equipment bought from local manufacturers is exempted from sales tax.

In 2010, the Government established the Green Technology Financing Scheme, amounting to RM1.5 billion (about US\$455 million), to provide soft loans to companies that supply and use green technology, with limits of RM50 million and RM10 million, respectively. The Government will bear 2 per cent of the total interest rate. It will also provide a guarantee of 60 per cent on the financing amount, with banking institutions providing the balance.

*Fuel subsidy.* One major reason attributed to the slow uptake of renewable energy and energy efficiency approaches and the financial incentives on offer are the subsidies for electricity and fuel. Lower than market prices have therefore deterred a stronger shift towards energy conservation and energy efficiency in particular. The Government finally addressed this long-standing issue in 2010, initiating a process of gradually phasing out these subsidies.

*Implementation and monitoring.* Ultimately, the effectiveness of these policies and targets

will depend on implementation. A system will be established during the Tenth Malaysia Plan to monitor, gather, analyse and disseminate information on progress with sustainable energy development measures, facilitating implementation.

Steps are also needed to identify current gaps and limitations in the technical capacity and number of local professionals with the necessary skills and knowledge in renewable energy and energy efficiency. This also applies to support industries, as they are still deficient in both quantity and quality of services.

## Consumption of ozone-depleting substances

### *Status and trends*

The Department of Environment under the Ministry of Natural Resources and Environment is the national focal point for the Montreal Protocol to phase out the consumption of ozone-depleting substances. The Protocol was adopted in 1987 with the goals of completely phasing out chlorofluorocarbons (CFCs) and halons by 2010, methyl bromide and methyl chloroform by 2015, and hydrochlorofluorocarbons (HCFCs) by 2030.

From 1990 to 2008, Malaysia reduced its use of CFCs by 94.9 per cent (Table 7.9). Over the same period, it reduced its use of methyl chloroform by 66.3 per cent, and of methyl bromide by 58.8 per cent. It completely phased out the use of halons and carbon tetrachloride in 2000 and 2005, respectively. However, the use of HCFCs, an approved substitute for CFCs, increased by 491.9 per cent from 1990 to 2008.

### *Analysis*

Malaysia has achieved specific pre-2010 targets for ozone-depleting substances under the Montreal Protocol and is on track to comply with the post-2010 provisions of the protocol.

Even though HCFCs are an interim replacement for CFCs, their use is still a global concern. In addition to depleting the ozone layer,

TABLE  
7.9

Consumption of ozone-depleting substances, 1990–2008 (ODP tonnes)

Ozone-depleting substance	Baseline	1990	1995	2000	2005	2006	2007	2008
Annex A, Group I (CFCs)	3,271.1	3,383.4	3,426.6	1,648.9	668.3	564.2	234.2	173.7
Annex A, Group II (halons)	8	809.5	24	0	0	0	0	0
Annex B, Group I (other fully halogenated CFCs)	11.1	na	204.1	0	0	0	0	0
Annex B, Group II (carbon tetrachloride)	4.5	na	0	12.7	0	0	0	0
Annex B, Group III (methyl chloroform)	49.5	17.2	39.2	51	3.3	5.1	5.8	5.8
Annex C, Group I (HCFCs)	na	65.5	216.9	333.6	362.1	384.5	416.1	387.7
Annex C, Group II (HBFCs)	na	na	0	0	0	0	0	0
Annex C, Group III (bromochloromethane)	na	na	na	na	0	0	0	0
Annex E, Group I (methyl bromide)	14.6	19.9	34.0	36.4	10.8	11.3	10.5	8.2

ODP = ozone-depleting potential; CFCs = chlorofluorocarbons; HCFCs = hydrochlorofluorocarbons.

Source: *Ozone Depleting Substances Malaysia Data Report*, Data Access Centre, United Nations Environment Programme Ozone Secretariat (Montreal Protocol), accessed 22 November 2010 from [http://ozone.unep.org/Data\\_Reporting/Data\\_Access](http://ozone.unep.org/Data_Reporting/Data_Access).

they have high global warming potential. Their use therefore needs to be phased out well ahead of the 2030 deadline.

## Proportion of fish stocks within safe biological limits

### Status and trends

From 1990 to 2008, marine fish landings in Malaysia increased by 46.3 per cent (Table 7.10).

### Analysis

Trends in marine fish landings show differences between Peninsular Malaysia on the one hand, and Sabah and Sarawak on the other, especially between 2005 and 2008. They increased in the former, but declined in the latter. To maintain the fishing effort in inshore waters at the present level, the Government has responded in various ways. It has placed a moratorium on the issuance of new licences for fishing in inshore waters. Other approaches include designating a zoning system, gazetted more marine-protected areas, preparing an “exit plan” to reduce fishing within inshore waters, encouraging deep-sea fishing and strengthening enforcement.

Complementing these activities is a community-based Fishery Management Programme. This programme aims to enhance conservation

of fish resources in which stakeholders, especially fishermen, will be involved in management. The programme expects to make fishing communities more responsible for their actions and sensitive to the sustainability of their resources.

## Proportion of total water resources used

### Status and trends

*Water supply.* The main resources for raw water are rivers, storage dams and groundwater. The Compendium of Environment Statistics Malaysia 2009 states that the capacity of raw water resources from rivers increased by 68.6 per cent from 2,760,343 litres in 2004 to 4,654,858 litres in 2008.<sup>5</sup> During the same period, capacity from groundwater rose by 10.3 per cent from 64,558 litres to 71,242 litres. Raw water resources from storage dams fell by 53.3 per cent from 1,257,596 litres in 2004 to 587,334 litres in 2008.

In 2008, Selangor had the most river-based raw water resources (35.6 per cent of the total), Johor had the biggest share of storage-dam-based water resources (24.8 per cent) and Kelantan had the largest source of groundwater resources (69.3 per cent).

5. Department of Statistics (2010).



TABLE  
7.10

Marine fish landings, inshore and deep sea, 1990–2008 (tonnes)

State	1990	1995	2000	2005	2006 (revised)	2007	2008 (preliminary)
Malaysia	951,307	1,108,436	1,285,696	1,209,601	1,371,733	1,381,424	1,391,589
Perlis	46,206	44,468	57,168	133,047	163,038	193,800	189,358
Kedah	86,408	86,781	76,735	63,703	67,122	83,922	95,940
Pulau Pinang	52,278	46,177	35,895	23,449	33,112	37,774	43,627
Perak	219,044	215,537	215,272	213,840	209,153	239,653	219,066
Selangor	86,966	111,105	135,864	74,141	146,388	116,138	121,281
Negeri Sembilan	349	512	326	364	374	426	376
Melaka	2,363	1,933	1,858	1,775	1,829	1,801	1,790
Johor	92,126	80,937	83,415	83,481	109,118	94,278	88,923
Kelantan	31,557	25,446	60,917	46,494	63,676	74,840	68,039
Terengganu	97,236	80,566	120,615	93,012	111,394	81,007	104,699
Pahang	105,370	126,002	145,828	111,242	113,063	105,446	119,249
Peninsular Malaysia	819,903	819,464	933,893	844,549	1,018,267	1,029,084	1,052,346
Sarawak	78,878	99,255	134,932	158,676	148,665	140,233	136,324
Sabah	44,760	166,462	202,857	187,067	176,314	184,162	174,010
Labuan	7,766	23,255	14,014	19,309	28,486	27,945	28,909

Source: *Buku Perangkaan Tahunan Perikanan*. Malaysia, Department of Fisheries, 2008, accessed 1 May 2010 from [http://www.dof.gov.my/buku\\_perangkaan\\_tahunan\\_perikanan](http://www.dof.gov.my/buku_perangkaan_tahunan_perikanan).

*Metered water consumption.* Nationally, this metric increased by 3.1 per cent from 2005 to 2008 (Table 7.11). The states of Pulau Pinang, Melaka and Kedah consumed the most water in 2008. Metered water consumed by the non-domestic sector rose by 13.2 per cent from 2005 to 2008. Pulau Pinang and Selangor, the two most industrialized states, were the biggest users at the end of the period.

*Agricultural water consumption.* According to the Ministry of Agriculture and Agro-Industry, from 2005 to 2008 agriculture's demand for water decreased by 2.1 per cent from 9.8 km<sup>3</sup> to 9.6 km<sup>3</sup>.

### Analysis

The *Environmental Quality Report 2008* shows that the number of clean river basins dropped from 91 in 2007 to 76 in 2008.<sup>6</sup> This was attributed to an increase in the number of pollut-

ing sources such as sewage treatment plants, agro-based factories and poultry farms, and a decrease in the amount of rainfall, especially in the states of Pahang and Sarawak.

Government responses emphasize both supply-side and demand-side management approaches. On the supply side, they look to exploring alternative water sources, such as groundwater, as well as constructing new dams and water treatment plants. The Government will also implement programmes to reduce non-revenue water and develop inter-river basin water transfers (to address uneven distribution). Integrated water resources management and integrated river basin management approaches are other important aspects.

On the demand side, Government responses emphasize reducing demand for potable water. For non-potable uses, measures include promoting "six-litre flush toilets" and harvesting rainwater for gardening, through the Green Township Programme and the

6. Department of Environment (2009).



TABLE  
7.11

Metered water consumption by sector and state, 2005–2008 (million litres a day per thousand population)

State	Domestic				Non-domestic			
	2005	2006	2007	2008	2005	2006	2007	2008
Malaysia	0.191	0.189	0.198	0.197	0.091	0.098	0.099	0.103
Johor	0.200	0.203	0.205	0.206	0.076	0.080	0.089	0.091
Kedah	0.228	0.231	0.245	0.240	0.074	0.070	0.085	0.085
Kelantan	0.074	0.076	0.077	0.077	0.031	0.031	0.032	0.032
Melaka	0.210	0.214	0.265	0.268	0.189	0.183	0.125	0.130
Negeri Sembilan	0.191	0.197	0.236	0.238	0.128	0.112	0.089	0.093
Pahang	0.156	0.160	0.208	0.211	0.094	0.098	0.070	0.074
Perak	0.216	0.213	0.214	0.216	0.078	0.080	0.080	0.081
Perlis	0.222	0.224	0.214	0.228	0.040	0.045	0.060	0.038
Pulau Pinang	0.272	0.274	0.281	0.284	0.177	0.184	0.193	0.198
Sabah	0.087	0.098	0.096	0.081	0.021	0.009	0.014	0.036
Sarawak	0.141	0.149	0.166	0.167	0.095	0.096	0.108	0.108
Selangor <sup>a</sup>	0.251	0.227	0.232	0.233	0.114	0.145	0.148	0.150
Terengganu	0.169	0.177	0.175	0.174	0.103	0.119	0.127	0.136
Labuan	0.220	0.201	0.213	0.221	0.119	0.124	0.127	0.138

a. Selangor includes Kuala Lumpur and Putrajaya.

Source: Malaysia, Department of Statistics, 2010. *Compendium of Environment Statistics Malaysia 2009*.

Green Building Certification Programme. The Government is also considering suitable economic instruments to induce behavioural changes to encourage sustainable water use among Malaysian households.

For the water services industry, the Government has launched a Benchmarking and Tariff Setting Mechanism Study. It aims to find a balance between users' affordability and industry's sustainability, taking into account water operators' capital and operating expenditure, including full cost recovery.

Long term, the National Water Resources Policy outlines measures to ensure efficient and effective management of this increasingly scarce resource, including streamlining policies and legislation to allow for equitable distribution. The policy marks an important milestone, because it will establish a process for ensuring the security of water supply in an era of rapid economic development, growing cities and population growth, all of which have important implications on how Malaysia manages its water resources.

## Proportion of terrestrial and marine areas protected

The 2008 IUCN Red List of Threatened Species ranks Malaysia among the top 20 countries in the world for the most amphibian, mammal and conifer species.<sup>7</sup> Table 7.12 shows the status of a range of species.

### Terrestrial areas

*Status and trends.* In 2010, land areas classified as protected were 10.4 per cent of total land area of the country. Their size is based on the Final Draft Protected Areas Master List being finalized by the Ministry of Natural Resources and Environment. To ensure the protection and conservation of biodiversity, connectivity among these protected areas was created, comprising permanent reserved forest, national and state parks, wildlife sanctuaries, wildlife reserves, wildlife rehabilitation centres, marine parks and conservation areas.

7. IUCN (2009).

Species	Peninsular Malaysia	Sabah	Sarawak
<b>Flora</b>			
Vascular plants <sup>a</sup>	8,300	12,000	na
Trees	2,830	na	na
<b>Fauna</b>			
Mammals	222 <sup>b</sup>	221	na
Birds	742 <sup>c</sup>		
Amphibians	242 <sup>c</sup>		
Reptiles	567 <sup>c</sup>		
Freshwater fish	290	100	200
Marine fish	1,500 <sup>c</sup>		
Butterflies	1,031	936 <sup>d</sup>	
Beetles	93	106 <sup>d</sup>	
Ants	1,200 <sup>c</sup>		
Wasps	20,000 <sup>c</sup>		

a. Angiosperms, gymnosperms and pteridophytes.

b. Updated figure for 2009.

c. All Malaysia.

d. Sabah and Sarawak

na = not available.

Source: 4th National Report to the Convention on Biological Diversity, Ministry of Natural Resources and Environment, 2009.

*Analysis.* The protected land areas exceed the global 2010 biodiversity target of 10 per cent. The human capacity and fiscal resources needed to manage these areas are challenging. As a way forward, Malaysia is implementing a project, Enhancing Effectiveness and Financial Sustainability of Protected Areas in Malaysia. Areas of focus of the project include the form and method of financing management of protected areas. This project will complement the document published in 2009 on Sustainable Financing and Management of Protected Areas in Malaysia, which highlights possible strategies and options on governance and financing.<sup>8</sup>

### Marine areas

*Status and trends.* In 2009, waters surrounding 66 islands in Malaysia were gazetted as

8. EPU (2009).

State	Marine park area		Area (hectares)
	Gazetted islands (marine parks)	Other islands in marine park water areas (islands)	
Malaysia	66	32	545,918
Johor	13	14	76,565
Pahang	9	5	67,661
Terengganu	13	13	56,869
Kedah	4	0	18,813
Peninsular Malaysia	39	32	219,908
Labuan	3	0	15,815
Sabah	20	0	103,850
Sarawak	4	0	206,345

Source: The National Action Plan for the Management of Coral Reefs in Malaysia; Kompendium Jabatan Taman Laut Malaysia 2009; Sabah Parks; Sarawak Forestry Department.

marine parks. Of these 42 were in Peninsular Malaysia and Labuan, a rise from 38 in 1994 and 40 in 1998. A further 24 parks were in Sabah and Sarawak (Table 7.13).

Regionally, Malaysia is a participant in the Coral Triangle Initiative and the Sulu–Sulawesi Marine Ecoregion (see Table 7.4 above). Table 7.14 shows the protected marine areas within the latter region.

*Analysis.* The expansion of the Marine Park Section into the Department of Marine Park Malaysia in 2007 shows the importance the Government gives to protecting marine areas. Issues pertaining to the management of marine parks have been addressed through the department's policy and management plan, which guide park managers.

Other requirements to strengthen conservation management of marine biodiversity include evaluating the effectiveness of current management practices, assessing the total economic value of marine resources and analysing the carrying capacity of marine parks. Comprehensive habitat maps of marine parks are also needed, for zoning purposes. These

TABLE  
7.14

Protected marine areas in the Sulu–Sulawesi Marine Ecoregion

Name	Marine area (hectares)	Land area (hectares)	Agency	Legal instrument
Turtle Islands	1,721	18.2	Sabah Parks	Parks Enactment of 1984
Tun Sakaran Marine Park	33,732	1,268	Sabah Parks/ Management Plan Advisory Committee	Parks Enactment of 1984
Sugud Islands Marine Park	46,300	17	Sabah Wildlife Department/ Reef Guardian	Wildlife Conservation Enactment 1997

Note: The Sabah state government is gazetting the Tun Mustapha Marine Park (1.03 million hectares) and Sipadan Island Park (6,860 hectares) as protected marine areas.

Source: Sabah Parks and Sabah Wildlife Department.

maps will help park managers prioritize areas for immediate measures.

## Proportion of species threatened with extinction

### *Status and trends*

The 2008 IUCN Red List puts Malaysia among the countries with the largest number of threatened species – 70 mammals and 42 birds – at 6th and 16th, respectively, among 20 countries.<sup>9</sup>

### *Analysis*

As the focal agency for wildlife, the Department of Wildlife and National Parks gives priority to six species for *in-situ* conservation to reintroduce and restock certain species and relocate others. They are the Sumatran rhinoceros, gaur, tiger, elephant, pheasant and milky stork. In 2010, 12 species were under a breeding programme to preserve the genetic resources of some species at the conservation centre. In 2008, the Department of Wildlife and National Parks set up the Wildlife Genetic Resources Bank as a depository of biological material, including sperm, embryo, tissues and blood of local wildlife species.

Parliament passed a Wildlife Conservation Bill on 2 August 2010 to repeal the Protection of Wildlife Act 1972. It aims to strengthen the enforcement provisions and increases the

penalties on offences related to endemic species classified as protected and totally protected, and to curb poaching, smuggling and ill-treatment of wildlife either in zoos or private collections. It also complements the International Trade in Endangered Species Act 2008 to deal with the import, export and re-export of species listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora throughout Malaysia.

The National Strategy for Plant Conservation was published in 2009. It highlighted the status, current gaps and what needs to be done for plant conservation.

## Halving the proportion of people without sustainable access to safe drinking water and basic sanitation

### Proportion of population using an improved drinking water source

### *Status and trends*

According to the National Water Services Commission, in 2009 potable water supply coverage reached 91.6 per cent of the population in Malaysia, up from 90.5 per cent in 2007. Coverage in 2009 exceeded 90 per cent in all states except Kelantan, Sabah and Sarawak. Kelantan's coverage was lower because of its reliance on groundwater as a water source. Table 7.15 shows the sources of treated water supply by state and type of amenities in 2007.

9. IUCN (2009).

TABLE  
7.15

Sources of water supply by state, 2007 (%)

State	Treated, in house	Treated, public pipe	Total	Untreated pipe, in house, and other
Malaysia	89	2	91	9
Johor	96	2	98	2
Kedah	96	<1	>96	<4
Kelantan	49	4	53	47
Melaka	99	<1	>99	<1
Negeri Sembilan	99	<1	>99	<1
Pahang	94	2	96	4
Pulau Pinang	99	<1	>99	<1
Perak	97	<1	>97	<3
Perlis	95	2	97	3
Selangor <sup>a</sup>	98	2	100	1
Terengganu	84	7	91	9
Sabah	64	4	68	32
Sarawak	76	5	81	19

a. Selangor includes Kuala Lumpur and Putrajaya.

Note: <1 represents less than 0.5 per cent; >0.5 per cent is rounded to 1. Hence total may not always amount to 100 per cent. The survey classifies water amenities into eight categories: treated piped water inside house, (treated) public stand pipe, hand pump, mechanical pump, hand-drawn well, rain/river/stream water, untreated piped water and others. These have been reclassified into four categories: treated piped water inside house, (treated) public stand pipe, untreated piped water and others. A reason for isolating untreated piped water is the situation in Sarawak (and other remote areas) where many longhouses have gravity-fed piped water originally supplied by the State Health Department. WHO counts this as an improved water source.

Source: Malaysia, Department of Statistics, *Household Income/Basic Amenities Survey, 2007*.

Table 7.16 shows the sources of water supply by location in 2007.

Urban water supply coverage increased from 96.5 per cent in 2007 to 96.8 per cent in 2009 (Table 7.17). Coverage in 2009 exceeded 98 per cent in all states except Kelantan, which was lower at 57.7 per cent because of a different measurement standard and its reliance on groundwater as a water source.

In 2009, water supply coverage to rural areas was 86.5 per cent (Table 7.18). All states had coverage exceeding 80 per cent with the exception of Sabah, Sarawak and Kelantan, which had less than 60 per cent coverage.

Increased access to treated drinking water sources has had a commensurate effect in reducing communicable diseases such as cholera, dysentery and typhoid (Figure 7.2). From 1990 to 2008, cases of cholera fell by 95.5 per cent from 2,071 to 94, of dysentery by 83.2 per cent from 548 to 92 and of typhoid by 91.0 per cent from 2,223 to 200.

TABLE  
7.16

Sources of water supply by urban/rural location, 2007 (%)

Location	Treated, in house	Treated, public pipe	Total	Untreated, in house, and other
Urban	95	2	97	3
Rural	84	2	86	14

Source: *Household Income/Basic Amenities Survey, 2007*, Malaysia, Department of Statistics.

### Analysis

The Government plans to increase coverage of treated water supply to 97 per cent of the population by 2015 (from 91.6 per cent in 2009). Rural areas in states with lower water supply coverage such as Sabah and Sarawak require special attention. Villages of indigenous groups, small estates and rural schools in remote and difficult-to-access areas also require special attention. Water-provision programmes for these categories, such as groundwater abstraction, rainwater harvesting

TABLE  
7.17Urban water supply coverage by state,  
2007–2009 (%)

State	2007	2008	2009
Malaysia	96.5	96.5	96.8
Johor	100.0	100.0	100.0
Kedah	100.0	100.0	100.0
Kelantan	55.5	56.3	57.7
Melaka	100.0	100.0	100.0
Negeri Sembilan	100.0	100.0	100.0
Pahang	98.0	98.0	100.0
Perak	100.0	100.0	100.0
Selangor <sup>a</sup>	100.0	100.0	100.0
Terengganu	98.0	98.5	98.6
Pulau Pinang	100.0	100.0	100.0
Perlis	100.0	100.0	100.0
Labuan	100.0	100.0	100.0
Sabah	99.0	99.0	99.0
Sarawak	100.0	99.0 <sup>b</sup>	99.5 <sup>b</sup>

a. Selangor includes Kuala Lumpur and Putrajaya.

b. Urban coverage for Sarawak from 2008 onwards does not include water supply by other agencies such as the Ministry of Health and private supply.

Note: State population served is based on "percentage of population with access to the public water supply system", except for Kelantan, which is based on "percentage of population with metered water supply", where the population prefers to rely on its abundant supply of groundwater.

Source: Malaysia, Department of Statistics. 2010. *Compendium of Environment Statistics Malaysia 2009*.

and gravity feed supply systems, are being intensified.

## Proportion of population using an improved sanitation facility

### Status and trends

In 2007, the proportion of the population using an improved sanitation facility, namely a flush or pour flush toilet, was 97 per cent (Table 7.19).

The proportions of the urban and rural population using an improved sanitation facility (Table 7.20) were 99 per cent and 96 per cent, respectively, in 2007.

Sanitary latrine coverage in general for the rural population increased from 80.6 per cent in 1990 to 96.5 per cent in 2000 and to 98.3 per cent in 2009, according to the Ministry of Health.

TABLE  
7.18Rural water supply coverage, 2007–  
2009 (%)

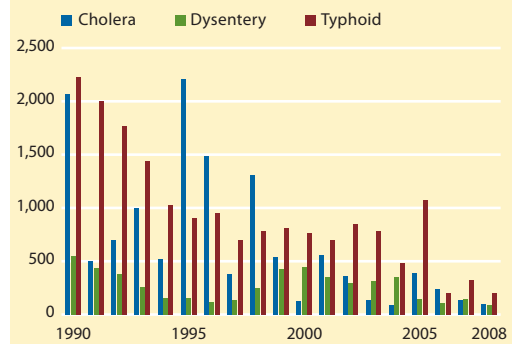
	2007	2008	2009
Malaysia	84.6	85.3	86.5
Johor	99.5	99.5	99.5
Kedah	94.8	95.0	96.5
Kelantan	52.1	53.2	54.7
Negeri Sembilan	99.5	99.5	99.5
Pahang	89.0	89.0	96.0
Perak	97.2	98.9	98.0 <sup>a</sup>
Selangor <sup>b</sup>	99.0	99.0	99.0
Terengganu	81.5	82.0	82.5
Pulau Pinang	99.5	99.6	99.6
Perlis	99.0	99.0	99.0
Sabah	52.0	52.0	52.3
Sarawak	54.1	56.5	61.5

a. Reduction in Perak's rural coverage in 2009 was due to re-categorization of certain rural areas to urban by the local authorities.

b. Selangor includes Kuala Lumpur and Putrajaya.

Note: States' population served is based on "percentage of population with access to the public water supply system," except for Kelantan, which is based on "percentage of population with metered water supply," where the population prefers to rely on its abundant supply of groundwater. Rural areas not applicable for Melaka and Labuan as all areas are served by City Councils.

Source: Malaysia, Department of Statistics. 2010. *Compendium of Environment Statistics Malaysia 2009*.

FIGURE  
7.2Incidence of notifiable communicable  
diseases, 1990–2008

Source: *Health Facts 2007 and 2008*. Health Informatics Centre Planning and Development Division, Ministry of Health, Malaysia.

### Analysis

There is a very high coverage of sanitary latrines among urban and rural populations in Malaysia. Sewerage systems are being

TABLE  
7.19

## Proportion of population using an improved sanitation facility, 2007 (%)

State	Type of sanitation facility			
	Flush	Pour flush	Total	Other <sup>a</sup>
Malaysia	73	24	97	3
Johor	82	17	99	1
Kedah	52	47	99	1
Kelantan	35	65	100	0
Melaka	83	17	100	0
Negeri Sembilan	83	16	99	1
Pahang	83	16	99	1
Pulau Pinang	81	19	100	0
Perak	73	27	100	0
Perlis	34	64	98	2
Selangor <sup>b</sup>	93	7	100	0
Terengganu	38	62	100	0
Sabah	45	32	77	23
Sarawak	64	33	97	3

a. Other includes pit, enclosed space over water surface and others.

b. Selangor includes Kuala Lumpur and Putrajaya.

Source: Malaysia, Department of Statistics, *Household Income/Basic Amenities Survey, 2007*.

TABLE  
7.20

## Sanitation facilities by urban/rural location, 2007 (%)

State	Flush		Pour flush		Total		Other	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Malaysia	87	47	12	49	99	96	1	4
Johor	91	62	9	37	100	99	0	1
Kedah	82	30	17	69	99	99	1	1
Kelantan	48	28	51	72	99	100	1	0
Melaka	87	67	13	33	100	99	0	1
Negeri Sembilan	95	67	5	32	100	99	0	1
Pahang	92	74	8	23	100	97	0	3
Pulau Pinang	87	51	13	49	100	100	0	0
Perak	87	50	13	50	100	100	0	0
Perlis	63	17	36	81	99	98	1	2
Selangor <sup>a</sup>	96	64	4	35	100	99	0	1
Terengganu	52	22	47	78	99	100	1	0
Sabah	62	33	23	39	89	72	11	28
Sarawak	88	52	11	45	99	97	1	3

a. Selangor includes Kuala Lumpur and Putrajaya.

Source: Malaysia, Department of Statistics, *Household Income/Basic Amenities Survey, 2007*.

upgraded to improve the quality of rivers and the environment.

## Improving the lives of at least 100 million slum dwellers

### Proportion of urban population living in squatter settlements

As the original term of the indicator “living in slums” is inappropriate for Malaysia, the indicator has been modified to “living in squatter settlements”. The provision of piped water and electricity is a feature in squatter settlements in Malaysia.

#### Status and trends

From 2004 to 2009, the number of squatter households declined by 8.9 per cent (Table 7.21). Selangor showed the sharpest proportional decline (80.5 per cent) followed by Terengganu and Kuala Lumpur (74.7 per cent and 51.6 per cent). In contrast, Johor and

Perak showed sharp increases (of 686.7 per cent and 64.9 per cent).

Since 1999, under the People’s Housing Programme, the Government has built 54,400 affordable housing units to squatter households and low-income groups (Table 7.22). Of this number, 47,984 units (88.2 per cent) were occupied, 69.5 per cent of them (33,357 units) by former squatter households and the remaining 30.5 per cent (14,627 units) by the non-squatter (low-income) group. The balance of 6,416 units (11.8 per cent) remained vacant in July 2010.

The table shows that 24.5 per cent or 12,937 units built under the People’s Housing Programme were not occupied, with the highest proportion in Johor (45.3 per cent). The table also shows that after Kuala Lumpur, the most housing units under the programme were built in Sabah, the state with the highest number of squatter households. This is due to the reluctance of squatter households

State	2004	2005	2006	2007	2008	2009
Malaysia	108,704	98,446	91,895	88,138	86,885	99,022
Johor	1,541	5,293	11,411	11,411	12,565	12,123
Kedah	3,382	3,528	3,443	3,629	3,629	3,633
Kelantan	1,392	1,258	1,699	1,695	1,638	1,654
Melaka	67	62	52	36	41	32
Negeri Sembilan	291	121	346	297	297	284
Pahang	647	2,928	918	1,052	1,052	1,141
Perlis	2,397	2,266	2,266	2,243	2,243	2,221
Perak	7,950	7,766	14,282	14,243	14,203	13,109
Pulau Pinang	3,331	4,010	5,835	6,370	6,435	4,486
Sabah	38,868	38,868	25,525	23,692	23,692	37,965
Sarawak	8,919	9,641	9,618	9,325	9,204	8,563
Selangor	20,353	5,913	2,811	1,197	1,197	3,964
Terengganu	2,780	777	846	699	699	702
Kuala Lumpur	16,786	14,947	11,676	11,181	9,119	8,176
Labuan	na	1,068	1,167	1,068	871	969

na = not available.

Source: For 2004–2008: Malaysia, Ministry of Housing and Local Government, 2008, accessed March 2010 from <http://ehome.kpkt.gov.my/ehome/ehomebi/profil/matlamatsetinggalan.cfm>. For 2009: provided directly by the Squatters Division of Ministry of Housing and Local Government.

TABLE  
7.22

Status of occupied units under the People's Housing Programme by state, July 2010

State	Number	Units occupied		Total occupied	Not occupied	Occupancy rate (%)
		Squatter	Non-squatter			
Malaysia	54,400	33,357	14,627	47,984	6,416	88.2
Johor	5,664	4,015	1,344	5,359	305	94.6
Kedah	1,894	15	1,807	1,822	72	96.2
Negeri Sembilan	420	117	263	380	40	90.5
Perak	675	170	459	629	46	93.2
Perlis	1,228	100	1,002	1,102	126	89.7
Pulau Pinang	698	127	545	672	26	96.3
Sabah	10,531	4,524	3,919	8,443	2,088	80.2
Sarawak	1,016	78	938	1,016	0	100.0
Selangor	3,304	915	1,455	2,370	934	71.7
Kuala Lumpur	28,970	23,296	2,895	26,191	2,779	90.4

Source: Malaysia, Ministry of Housing and Local Government, 2010, accessed March 2010 from <http://ehome.kpkt.gov.my/ehome/laporan/perangkaan.cfm>.

to move unless there is a compelling reason to do so, such as development of the land on which they live.

### Analysis

The provision of affordable public housing will remain a priority for the Government. During the Tenth Malaysia Plan, 78,000 such units will be constructed nationally. Low-cost public housing units, subsidized by about 35–75 per cent of the total cost, will be provided to qualified individuals and families with household income levels of less than RM2,500 per month, under schemes offered by the National Housing Department.

## The way forward

Globalization is introducing new development challenges, and Malaysia will need to meet them. The following paragraphs outline some of these strategies.

### Enhancing conservation of ecological assets

#### *Generating funds for conservation*

Funding is a prerequisite for the conservation of forests and biodiversity, and alternative funding mechanisms need to be explored. Options include enhancing the way in which

fees and charges are levied on people who use these natural assets. It is also possible to leverage funds from international donors for projects that have global benefits, whether for climate change or biodiversity conservation.

#### *Implementing the Common Vision on Biodiversity*

The Common Vision on Biodiversity provides a framework to assist state governments and relevant stakeholders in achieving national goals and objectives on biodiversity. The framework is intended to support ongoing transformation of environmental planning and management from a largely sector-based to an integrated approach.

#### *Ensuring sustainable management of forests and natural heritage*

Forestry comes under the state governments' jurisdiction. The challenge is to ensure that national policies are implemented uniformly in all states. As forests play an important role as, for example, water catchment areas, and harbour untapped resources for biotechnology, greater emphasis has to be given to enforcement and governance of forest laws. In addition, there is a need to strengthen coordination and collaboration between all stakeholders in order



to ensure continuous practices of sustainable forest management.

### **Developing a climate-compatible growth strategy**

#### *Ensuring sustainable energy management*

The optimal use of energy resources will influence Malaysia's move towards developed nation status. Meeting the forecast demand for energy will require substantial financing to develop additional generation, transmission and distribution capacity, for electricity in particular.

A more cost-effective approach would be a demand management strategy focusing on energy conservation, energy efficiency and renewable energy. This would reduce the country's dependence on fossil fuels, reduce its carbon dioxide emissions and extend the life of the country's oil and gas reserves. A high-level National Green Technology and Climate Change Council has been set up and as policies on green technology and renewable energy have been introduced with funding and financing mechanisms, implementation is now the key.

#### *Getting public transport moving*

The Government set up the Land Public Transport Commission to fund and map out strategies and to implement measures for increasing the use of public transport. The key challenge will be on the shift from dependency on private vehicles to public transport. Gradually phasing out fuel subsidies should contribute.

#### *Sustainable consumption*

Production and consumption have a direct effect on environmental sustainability.

Special attention needs to be given to using natural resources sustainably, and to increasing resource efficiency, consistent with the goal of minimizing depletion and reducing pollution.

### **Managing water endowment and supply**

Water resources will be managed in a more sustainable manner by greater use of integrated water resources management. More R&D need to be undertaken to identify and tap alternative sources of water supply beside implementing measures in tackling floods and coastal erosions as well as hydro climate.

### **Enhancing capacity and intensifying research**

Shifting towards a sustainable development framework depends on adequate numbers of technical and policy experts, as well as support staff, in sectors ranging from environment and energy to biodiversity. Capacity needs to be built and human resources developed to ensure that policy goals are met, particularly in the relevant agencies – which will also need to enhance their R&D for better decision-making.

### **Strengthening awareness and participation**

Every generation of Malaysians has the responsibility to keep the environment clean and healthy. The Government will therefore continue to promote involvement of all stakeholders in meeting environmental goals through education and awareness programmes, working with research institutes, NGOs and the private sector. Greater involvement will also generate valuable feedback, encouraging greater success in its initiatives.

## Annex 7.1

TABLE  
A7.1 MDG 7 targets and indicators

Target	Indicator	Definition
<b>Target 7A:</b> Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources		
<b>Target 7B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	<b>7.1</b> Proportion of land area covered by forest	According to the definition by the Food and Agriculture Organization of the United Nations, forest is land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.
	<b>7.2</b> Carbon dioxide emissions, total, per capita and per US\$1 GDP (PPP)	Estimates of the total amount of carbon dioxide emissions include anthropogenic emissions, less removal by sinks, of carbon dioxide from all national activities. The typical sectors for which carbon dioxide emissions/removals are estimated are energy, industrial processes, agriculture, waste and the sector of land use, land-use change and forestry. Carbon emissions per capita are measured as the total amount of carbon dioxide emitted by the country as a consequence of all relevant human (production and consumption) activities, divided by the population of the country.
	<b>7.3</b> Consumption of ozone-depleting substances	This is the sum of the consumption of the weighted tonnes of the individual substances in the ozone-depleting substances group. They signify the progress in phasing out the consumption of chlorofluorocarbons by the countries that have ratified the Montreal Protocol.
	<b>7.4</b> Proportion of fish stocks within safe biological limits	Fish stocks are subpopulations of a particular species of fish, for which intrinsic parameters (growth, recruitment, mortality and fishing mortality) are the only significant factors in determining population dynamics, while extrinsic factors (immigration and emigration) are considered to be insignificant.
	<b>7.5</b> Proportion of total water resources used	Water resources are sources of water that are useful or potentially useful to humans. Uses of water include agricultural, industrial, household, recreational and environmental activities.
	<b>7.6</b> Proportion of terrestrial and marine areas protected	According to the International Union for Conservation of Nature, a protected area is an area of land and/or sea dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. A marine protected area is defined as any area of intertidal or subtidal terrain, with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or the entire enclosed environment.
	<b>7.7</b> Proportion of species threatened with extinction	A population of organisms at risk of becoming extinct because it is either few in number or threatened by changing environmental or predation parameters.

(continued)

TABLE  
A7.1

MDG 7 targets and indicators (continued)

Target	Indicator	Definition
<b>Target 7C:</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	<b>7.8</b> Proportion of population using an improved drinking water source	The share of population who use piped water, public tap, bore hole or pump, protected well, protected spring or rainwater. The population must also have reasonable access to an adequate supply of safe water in their dwelling or within a convenient distance of their dwelling.
	<b>7.9</b> Proportion of population using an improved sanitation facility	The percentage of the population with access to facilities that hygienically separate human excreta from human, animal and insect contact.
<b>Target 7D:</b> By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	<b>7.10</b> Proportion of urban population living in slums	A slum, as defined by the United Nations-HABITAT, is a run-down area of a city characterised by substandard housing and squalor and lacking in tenure security.

TABLE  
A7.2

Targets/indicators and adjustments

Target/indicator	Adjustment/comment
<b>Target 7A:</b> Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources	A review and analysis of efforts to integrate the principles of sustainable development into country policies and programmes at the federal, sectoral, state and local levels are undertaken.
<b>Target 7B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.	A review and analysis of efforts to mainstream biodiversity into country policies and programmes at the federal and state levels are conducted.
<b>7.1</b> Proportion of land area covered by forest	Data on the proportion of land area covered by forest are available at the federal level. The data provided are based on revisions made in 2010 to the previous computation for forest at state level, in accordance with the definition of the Food and Agriculture Organization of the United Nations.
<b>7.2</b> Carbon dioxide emissions, total, per capita and per US\$1 GDP (PPP)	Emissions in Malaysia's greenhouse gas inventory report are expressed in carbon dioxide-equivalent, instead of carbon dioxide. As Malaysia's greenhouse gas inventory report for 2000 is not available, the review of this indicator focuses mainly on the energy sector.
<b>7.3</b> Consumption of ozone-depleting substances	Data on the various ozone-depleting substances are available.
<b>7.4</b> Proportion of fish stocks within safe biological limits	As official data on fish stocks are not available, data on fish landings are used as a measure for this indicator.
<b>7.5</b> Proportion of total water resources used	Analysis of this indicator is based on the quantity of raw water sources, production, demand and supply. Data are available at the federal and state levels.
<b>7.6</b> Proportion of terrestrial and marine Protected Areas (PAs)	Data are available at the federal level for terrestrial protected areas and at the federal and state levels for marine protected areas.
<b>7.7</b> Proportion of species threatened with extinction	The 2008 International Union for Conservation of Nature Red List is used as a source of information.
<b>Target 7C:</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	A review and analysis of efforts in providing sustainable access to safe drinking water and basic sanitation are undertaken.
<b>7.8</b> Proportion of population using an improved drinking water resource	Data are available at the federal and state levels. The higher standard of "treated" water supply is used for this indicator, instead of just "an improved drinking water source". Data are provided from 2007 when water supply came under the purview of the National Water Services Commission.

TABLE  
A7.2

Targets/indicators and adjustments (continued)

Target/indicator	Adjustment/comment
7.9 Proportion of population using an improved sanitation facility	Data are available at the federal and state levels. The higher standard of "flush and pour flush" toilets is used for this indicator, instead of just "an improved sanitation facility".
<b>Target 7D:</b> By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	The term "living in slums" was modified to "living in squatter settlements" as the term "slums" was considered inappropriate for Malaysia. A squatter settlement in Malaysia is stated to be a building or construction used as human residence that does not adhere to the approved plan of the local authority.
7.10 Proportion of urban population living in squatter settlements	The actual "number of households" living in squatter settlements is used as the indicator, as that is how data are compiled at the federal and state levels.

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# MDG 8

## Develop a global partnership for development



### MDG 8 has seven targets:

- Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.
- Address the special needs of the least developed countries.
- Address the special needs of landlocked developing countries and small island developing states.
- Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.
- In cooperation with developing countries, develop and implement strategies for decent and productive work for youth.
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
- In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.

Malaysia has achieved significant results under Targets 8A, 8B, 8C and 8G (see chapter annex).<sup>1</sup> This chapter uses eight associated indicators to assess the level of global partnership for development. Although Malaysia is not an OECD/DAC country and is not

1. For reporting purposes, progress under Target 8C is covered under Target 8A, which reports the achievement made through the same indicator, that is, Indicator 8.2. Target 8E is discussed under Target 1B of chapter 1.

subjected to the targets, it strives to move in line with them and is able to measure progress in increasing its global partnership. As in most developing countries, the absence of relevant and reliable data is a major drawback to ascertaining progress and to a certain extent makes it hard to identify gaps and challenges. In aligning with the spirit of MDG 8, some adjustments to the indicators in the form of proxies was made to adapt them to the Malaysian context and to adjust for limited data. The chapter annex lists the indicators and the adjustments.

Malaysia has become an increasingly active international partner for development. For more than three decades after independence, it was a recipient of foreign aid, both financial and non-financial. This pattern has changed in the last two decades as the country has elevated its status to upper middle income. As one of the main players in South–South Cooperation (SSC), it has contributed immensely to capacity building and human capital development among member countries through the Malaysian Technical Cooperation Programme (MTCP). In the Ninth Malaysia Plan period, Malaysia’s capital contribution to multilateral organizations was nearly equal to what it received in technical assistance.

The chapter describes Malaysia’s status and initiatives on the development agenda. It also highlights some of the challenges the nation faces.

## Developing the trading and financial system

### Official development assistance received by Malaysia

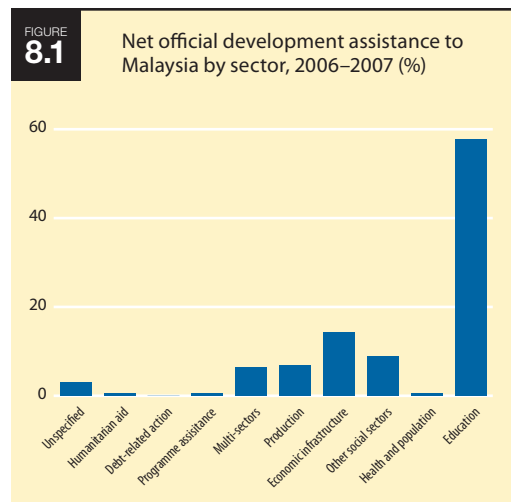
An inverted relationship best explains the official development assistance (ODA) to Malaysia and its economic trajectory. As Malaysia moves up the development ladder towards high-income status, ODA is naturally on a declining trend. In 2009, for example, Malaysia’s net ODA receipts amounted to 0.0004 per

cent of donor’s gross national income. Still, domestically, the amount is relatively large, equivalent to 3 per cent of expenditure on social services in the Ninth Malaysia Plan or 0.1 per cent of gross national income in 2008.

Most of the ODA received in 2006–2007 was for social services and more than half was for education, including capacity building (Figure 8.1). Malaysia has consistently allocated a large proportion of public expenditure to primary, secondary and tertiary education but still depends on external assistance for specialized areas of industrial training. (It received an insignificant amount of assistance for economic infrastructure.)

ODA received by Malaysia comes largely from Japan for capacity building. Japan’s aid to South-East Asian countries such as Malaysia stems from its post-war diplomacy, its growing economic interdependence with the region, and political and security considerations. Grant aid from Japan of less than US\$4 million in 2008 was targeted at counter-terrorism and security enhancement.

Japan’s historical importance as an ODA donor has allowed it to build stronger relations with Malaysia. In turn, Malaysia now partners with the Japan International Cooperation Agency (JICA) in helping other countries through trilateral training programmes.



Source: OECD; World Bank.

## Malaysia's contribution through the Malaysian Technical Cooperation Programme and Involvement in South–South Cooperation

Malaysia has made a conscious policy decision to increase its participation in global development cooperation and promote partnership through engagement with the SSC framework and the Technical Cooperation among Developing Countries (TCDC) initiative.<sup>2</sup> Malaysia's support of SSC and TCDC is based on the principle of equality and mutual benefit. It further recognizes that TCDC can play a significant role in achieving international development goals, including the MDGs. The MTCP aims to strengthen Malaysia's relationship with other developing countries through trade and industry and to provide assistance in selected areas.

### *Malaysian Technical Cooperation Programme*

The MTCP is the most significant platform in promoting SSC. It aims to build human resource capacity through long-term fellowships and scholarships, short-term specialized training, study visits, practical attachments, advisory services and socio-economic projects. The benefits of the programme are apparent in terms of strengthening diplomatic relations, and boosting tourism and trade. Malaysia views SSC as a “smart partnership” with other developing countries, following the philosophy of “prosper thy neighbour”.

The MTCP also opens avenues to the private sector for new business ventures and maintains existing business and other relations through its alumni of participants. The benefits to recipient countries are seen in human capital development. The programme covered 140 countries from Africa to the Pacific Islands in 2009, up from only 52 in 1990. The number of participants in its courses has grown from 1,131 in the Fifth Malaysia Plan period (1986–1990) to 7,166 in the Ninth Malaysia Plan period

(2006–2010). By region, 60 per cent are from Asia, 25 per cent from Africa, 6 per cent from Eastern Europe and the Commonwealth of Independent States and from Oceania and 3 per cent from Latin America and the Caribbean.

The MTCP budget has steadily increased from RM9 million in 1990 to RM563 million under the Ninth Malaysia Plan. This is, however, a gross under-estimation of the total amount as it excludes salaries and fees as well as private sector contributions. In the 1990s, the MTCP started a new modality to provide technical cooperation to developing economies through sending experts to requesting countries. By 2009, it had sent 36 experts.

To strengthen SSC, the MTCP works with donor countries and multilateral organizations. This north–south partnership enriches SSC and has enabled trilateral cooperation, as in the case of third-country training programmes. Under this arrangement, Malaysia bears the human resource and operational costs while the partner bears the international costs of training. With JICA, for example, all courses are implemented on a 50:50 basis.

The MTCP selectively provides project-type assistance to countries facing transition difficulties or needing humanitarian aid. During 1991–2008, 28 such projects were carried out, which included building a clinical centre at the University of Sarajevo and houses elsewhere, and supplying computers. The MTCP also helps to bridge the digital divide and to develop information and communications technology (ICT) through Smart School Projects in isolated and disadvantaged schools. For its efforts, Malaysia was honoured with the South–South Innovation Award in 2008.

MTCP has been organizing programmes with international partners such as UNDP, JICA, Islamic Development Bank (IDB), the Commonwealth Secretariat, Danish International Assistance, the Australian Government Overseas Aid Program and the Colombo Plan. This approach will become the main form of cooperation as Malaysia is expected to share costs.

2. Achievement under Target 8C is reported in this section.



Private sector SSC activities are implemented mainly through two South–South organizations, the Malaysian South–South Association and the Malaysian South–South Corporation. These bodies have helped match domestic business opportunities with those in other developing economies and have gradually increased trade relationships, market penetration and business opportunities. The Malaysian South–South Corporation played a key role, for example, under the Tokyo International Conference on African Development Initiatives.

Another example is Petronas, a government-linked company, which has started to explore oil in many African and Asian countries. It often transfers technology and knowledge to local counterparts through skill training and job attachment. It also provides scholarships as well as running capacity-building and social welfare programmes in these countries, including a humanitarian mission to rebuild Aceh after the tsunami in December 2004.

### Regional initiatives

The Association of Southeast Asian Nations (ASEAN) is one of the most important regional initiatives for Malaysia, as gauged from the objectives of the Ministry of Foreign Affairs' Strategic Plan to 2015. ASEAN is the central regional platform for cooperation on many aspects including economy, security and amity.

Malaysia also engages in subregional programmes such as the Brunei–Indonesia–Malaysia–Philippines–East Asia Growth Area and the Indonesia–Malaysia–Thailand Growth Triangle. Malaysia also participates in many regional groupings such as the Asia–Pacific Economic Cooperation (APEC) and ASEAN alliances with various country groupings in Asia, the United States and the European Union.

### Multilateral initiatives

Malaysia's contributions to multilateral organizations amounted to more than RM341 million from 2001 to 2005, close to the technical

assistance received from bilateral and multilateral sources of a little more than RM366 million for the same period.

Malaysia takes part in programmes organized by the UN, the Commonwealth, the Organisation of the Islamic Conference (OIC), the Non-Aligned Movement and the World Trade Organization to promote the views of developing countries and their needs for special and differential treatment in multilateral negotiations. Working with the five UN agencies present in the country, Malaysia is involved in many capacity-building projects in areas such as finance and development, poverty eradication, environmental sustainability in urban societies, reproductive health and HIV/AIDS. Malaysia has taken leadership roles in SSC and chaired the OIC in 2003–2008, the Non-Aligned Movement in 2003–2006 and the Developing Eight (D-8) countries in 2008–2010.

MDGs on social development and on ICT among developing nations are some of the issues pursued in D-8 and G-77 discussions. Development cooperation in D-8 has focused on preferential tariff agreements, improvements to trade relations, cooperation to develop renewable energy resources and ICT (for example, addressing the digital divide between developed and developing countries). The G-77's main commitments are in the fields of trade, investment, economic and financial cooperation, promotion of social development and multilateral cooperation for SSC. Malaysia has hosted seven international dialogues on global partnership and furthering the MDGs, particularly for youth and socio-economic development. The benefit to Malaysia from multilateral partnerships is access to skilled personnel and technical assistance.

## Special needs of least developed countries

### Preferential trading arrangements

In its efforts to forge closer economic and trade ties, Malaysia has pushed through several initiatives, including preferential treatment



for least developed countries, trade agreements, investment guarantee agreements and joint trade committees.

Malaysia offers good market access to Cambodia, the Lao People's Democratic Republic, Myanmar and Vietnam through the Common Effective Preferential Tariff–ASEAN Free Trade Area.

Malaysia has much lower tariffs on imports of agricultural products from least developed countries than do the United States and the European Union. In 2008, its tariffs on their agricultural products were only 2.15 per cent compared with 8.9 per cent in the United States and 8.1 per cent in the European Union. The same year, the United States imposed 0.7 per cent tariffs on textiles and clothing, and Malaysia zero.

Malaysia has concluded two preferential trading arrangements with OIC members: the Trade Preferential System of the OIC and the D-8 Preferential Tariff Arrangement. They are awaiting ratification by other members (Malaysia has signed and ratified both).

Malaysia signed its first bilateral free trade agreement (FTA) with Japan. It signed an FTA with Pakistan in November 2007, which contains more favourable commitments on trade and services than those required by the World Trade Organization. As a result, Malaysia's total trade with Pakistan doubled in the two years after the agreement was signed. In all, Malaysia has signed trade agreements with 63 countries, 53 of them developing economies.

Malaysia has signed investment guarantee agreements with 73 countries, 51 of them developing countries. It has also established joint trade committees with 15 countries (11 of them developing).

## Developing countries' debt problems and debt sustainability

### Debt sustainability – source of loan

With a high gross national savings rate, Malaysia has reduced its dependency on external borrowings for development funding. It has

taken no new loans from the World Bank or the Asian Development Bank since 1999, but still accepts loans from IDB and JICA. Outstanding loans from JICA amount to about US\$799 million.

## Access to affordable, essential drugs

### Improving access to essential drugs through primary/secondary health care facilities

Access to affordable, essential drugs is a basic necessity for a healthy and productive labour force, and the Government has emphasized improving such access. Malaysia has a dual health-care system: a government-run medical service and a privately operated medical service. The former provides services to all citizens for a nominal fee. The cost of essential drugs to the population in public facilities is capped. However, the wide network of private primary care providers and the increasing footprint of private secondary and tertiary providers mean that a significant and increasing proportion of the population is not shielded from the high cost of essential medicines.

National initiatives to increase and sustain access to affordable and essential drugs include the Medical Assistance Fund; planned availability of a health-care facility within every 5 km radius; subsidized medical service for civil servants and their immediate family; formulation of the National Medicines Policy (2000) approved in 2006; review and update of the National Medicines Essential List in 2008; and legal provisions to allow or encourage generic substitution in the private sector. (A national health insurance scheme has been mooted but not approved.)

The number of public hospitals in Malaysia increased from 102 in 1990 to 136 in 2009, a 33 per cent rise, yet in the same period the population grew by 56 per cent. The number of health clinics increased from 582 in 1990 to 808 in 2009, but mobile clinics, which serve rural areas, decreased from 204 in 1990 to 196 in 2009. The doctor-to-population ratio

in Malaysia was only 1 in 1,000 in 2009. This will have to increase to at least 3 per 1,000 to meet OECD standards.

Malaysia's strategy of recognizing medical schools in Eastern Europe and the Middle East may contribute to achieving this goal and to human capital development at home. Based on land area, Malaysia requires at least 1,600 health-care facilities to meet the metric of one health facility in every 5 km radius. So although the combined number of government and private medical facilities exceeds this figure, the distribution, especially of private facilities, is very uneven, so that a fairly large number of rural people, particularly in Sabah and Sarawak, do not have a health facility within a 5 km or even 10 km radius.

The issue of affordability of essential drugs remains vexed. A 2007 study<sup>3</sup> found that the price of essential medicines is high in Malaysia, and concluded that there was a need for government intervention to ensure affordability for the low-income and middle-income groups that make up 80 per cent of the population. Both public and private service providers need to ensure that affordable drugs are available.

For the Government, the primary issue is the cost of essential drugs. As the disease pattern changes, the range of drugs that has become essential has widened. A global compact would help in keeping costs down.

### Bilateral health agreements

Malaysia has a well-developed primary health-care system, enabling it to share its experiences with many developing countries. It has signed four bilateral health agreements, with Brunei Darussalam, China, Iran and Thailand, benefiting both sides. They cover pharmaceuticals, medical and health research development, exchange of information and capacity building in the production of vaccines, primary health care, disease surveillance and food and drug inspection.

3. Babar and others (2007).

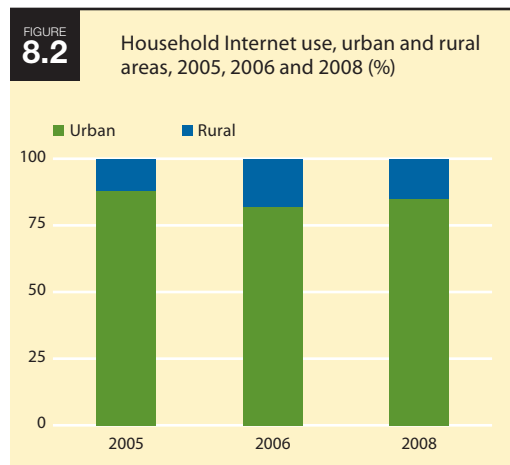
## Benefits of new technologies

### Broadband/Internet and telephony penetration

The last two decades have seen Malaysia embrace ICT, and it has done very well in some areas but not in others. Indeed, from an apparently commanding position regionally a decade and a half ago, Malaysia may now even have to play "catch-up". Still, the ICT revolution has affected every aspect of life, and ICT has the potential to bridge distance and isolation and hence rural–urban disparities.

Internet penetration – as indicated through mobile broadband penetration – can deepen the impact of ICT. Broadband penetration has increased to 53.5 per 100 households in 2010, up from 10.9 in 2006. The Government is currently focusing its efforts on finding the right mix of regulation and incentives to encourage private providers to extend their services to remote areas and close the digital divide that persists between urban and rural areas (Figure 8.2). It has set a target of raising household broadband penetration to 75 per cent by the end of 2015.

This will be achieved through two main initiatives: High-Speed Broadband and Broadband to the General Population, which leverage both wired and wireless technologies. The former will cover about 1.3 million premises by



Source: Malaysia Communication and Multimedia Commission, 2009.

2012 in state capitals, large urban areas and industrial zones. It will offer speeds of up to 100 Megabits per second. The latter will cover semi-urban and rural areas. The cost of High-Speed Broadband rollout will be partly met by the private sector whereas that of Broadband to the General Population will be partly funded through the Universal Service Provision Fund.

There have been pilot projects such as the e-Bario in one of the most remote regions of Sarawak, and this initiative is being extended to other locations, including the Penan areas of Long Lamai and Long Jekitan, also in Sarawak. However, scaling up these initiatives will require the entry of private service providers and significant subsidies from the public sector for community cyber-centres, as well as training for community members in basic trouble shooting and maintenance.

Cellular telephony has already had a significant impact in that many former hard-to-access areas now have it. Since 2000, cellular penetration reached 110.6 per 100 inhabitants in 2010. It has enabled low-income fishermen to seek out the best prices for their catch, even at sea. Conversely, the number of telephone lines per 100 households has fallen as people have switched to cellular. Only 43.7 per 100 households had such lines in 2009, down from 66.4 in 2000.

Over the years, the Government has encouraged a range of approaches to boost ICT development, including the following.

*ICT policy initiatives, strategies and programmes.* These started with the Seventh Malaysia Plan, followed by the National Information Technology Agenda, the Multimedia Super Corridor, the Demonstrator Application Grant Scheme, the Knowledge Economy Master Plan and the National Strategic Framework for Bridging the Digital Divide.

*Institutional infrastructure.* The Government has established and is supporting several institutions to plan, strategize and implement its ICT policy. They include the National

Information Technology Council, Malaysia Institute of Microelectronic Systems Bhd, the Ministry of Energy, Communications and Multimedia, the Malaysian Communications and Multimedia Commission, the Multimedia Development Corporation and the Association of Computers and Multimedia Industry of Malaysia.

*Support mechanism for ICT-related entrepreneurial development.* There are several forms of support available in Malaysia to spur the growth of the local hardware and software industry, content development and the development of “technopreneurs” and “netpreneurs”. Support may come in the form of financial and non-financial incentives, research and development grants, industry awards and the Universal Service Provision Fund.

*Malaysian venture capital industry.* The formal venture capital industry in Malaysia started in 1984 with the establishment of Malaysian Venture Berhad. The Multimedia Super Corridor-Venture One fund was established in June 1999 to provide venture capital financing to innovative and emerging ICT and multimedia companies at the start-up, growth and pre-initial public offering stages.

*Legislative support.* The Government has initiated legislation, including the Digital Signature Act 1997, Computer Crimes Act 1997, Electronic Government Act 1997, Multimedia Convergence Act 1997, Telemedicine Act 1997, Communication and Multimedia Act 1998 and Intellectual Property Protection Act 1998. In addition, the advance in ICT prompted the introduction of a Privacy Act and the enactment of the Personal Data Protection Bill to regulate transactions and information flow on the Internet.

Despite these and other efforts, the pace of ICT development can be described only as lethargic. The country is not now noted for its innovative prowess, either as a producer or user of ICT, a far cry from a couple of decades ago.

## The way forward

### Developing a strategic approach to official development assistance

Reflecting its move to become a stronger global development partner, Malaysia should produce a medium-term to long-term strategic framework for its outward ODA. This should include the following elements:

- *Identifying sectors.* The sectors in which Malaysia can cooperate most effectively are in social development, especially poverty reduction, as well as governance, energy, the environment and disaster relief.
- *Specifying a funding target.* The Government could consider formally committing to a target, expressed as a proportion of GDP, to be attained progressively over the next 10 years as the economy moves to high-income status. A formal commitment will increase international credibility.<sup>4</sup>
- *Monitoring and evaluation.* The Government should work with international organizations in strengthening this area. This would contribute towards effective targeting and prudent management of ODA, while meeting the specific needs of recipient countries.

### Engaging strategic partners

The last two decades have witnessed remarkable changes in the global economy and the dynamics of south–north relations which, in turn, influence SSC. The emergence of large, fast-growing developing economies and the progression of some of them to middle-income and high-income levels are adding a new dimension. In particular, several developing countries and institutions have raised their profiles as significant players in providing

resources and technical assistance to other countries.

During its transition to high-income status, Malaysia should leverage the strategic opportunities that have emerged from these changes. This approach will entail finding ways to engage with the emerging powers of Brazil, China, India, the Russian Federation and South Africa, as well as newly industrialized economies such as the Republic of Korea.

### Strengthening regional cooperation

All levels of technical and economic cooperation, as well as bilateral FTAs, have made great strides in recent years. Dialogue on cooperation and continued commitment to building an ASEAN Economic Community are expected to strengthen partnerships within the region.

Possible configurations for further region-wide FTAs include ASEAN+3, ASEAN+6 and APEC. Malaysia has indicated its willingness to engage in an initiative by the United States to negotiate a regional, Asia–Pacific trade agreement, known as the Trans-Pacific Strategic Economic Partnership Agreement. While working towards more regional trade partnerships, Malaysia could, either regionally or bilaterally, initiate better market access for least developed and other developing countries.

### Global compacts

A global compact may assist Malaysia to reduce the costs of medicine by enabling local production of widely used products for which foreign companies hold the patents. It would help to provide affordable access to middle-income and low-income countries, through differential pricing or affordable licensed production for domestic markets. In Malaysia, this exercise needs to be conducted in a regulated manner to ensure that quality and legal issues are resolved.

A similar compact would also be useful for cheaper satellite services, helping speed rural access not only in Malaysia but everywhere.

4. The widely accepted UN target of 0.07 per cent of gross national income is a possible option. But with very few countries having achieved it, it may be unrealistic. Even 0.04–0.05 per cent would be a substantial achievement and a huge increase from where Malaysia is today.

Domestically, with the rapid development of ICT, Malaysia needs to expand the facility of e-government to include more services while ensuring security in areas involving payments,

personal information and legal documents. These concerns justify the need to introduce the Privacy Act and to enact the Personal Data Protection Bill.

## Annex 8.1

**TABLE A8.1** MDG 8 targets, indicators and Malaysia's progress

Target	Indicator
<b>Target 8A:</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	<b>8.1</b> ODA received by Malaysia
	<b>8.2</b> Malaysia's contribution through Malaysian Technical Cooperation Programme (MTCP) and Malaysia's Involvement in South-South Cooperation
	Total allocation spent
	Number of MTCP member countries
	Number of participants
	Number of advisory services
	Number of special projects
	Number of third-country training programme courses
	Study visits and practical attachment by sector
	Agriculture
	Education
	Dispatch of experts and advisors by sector
	Agriculture
	Medical
<b>Target 8B:</b> Address the special needs of the least developed countries	<b>8.3</b> Preferential trading arrangement
	FTA with developing countries
	Trade agreements signed
	Investment guarantee agreements
<b>Target 8C:</b> Address the special needs of landlocked developing countries and small island developing states	Joint trade committees
	Reported under Indicator <b>8.2.</b>
	Number of advisory services
<b>Target 8D:</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Number of special projects
	<b>8.4</b> Debt sustainability – sources of loan from organization (IDB, ADB, IMF, World Bank)
<b>Target 8E:</b> In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	
<b>Target 8F:</b> In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	<b>8.5</b> Improving access to essential drugs through primary/secondary health care facilities
	Number of public hospitals
	Number of health clinics
	Number of mobile clinics
	Proportion of doctors per 1,000 population
	<b>8.6</b> Bilateral health agreements
<b>Target 8G:</b> In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	<b>8.7</b> Broadband/Internet and telephony penetration
	Broadband/Internet penetration per 100 households
	Cellular penetration per 100 inhabitants
	Telephones lines per 100 households

Malaysia's progress (aggregated)		
1990	2009	Note
Not available	0.0004% of donors' GNI	
RM9 million	RM563 million	
52 countries	140 countries	
226	28,153	
0	36	
0	28	
4 courses	88 courses	
2	16	
0	3	
0	13	
0	3	
None	Pakistan	
0	53	
6	45	
0	113	
Not available	7	
Not available	6	
IDB, ADB, World Bank, JICA	IDB, JICA	
This target is deliberated under <b>Target 1B</b> of chapter 1 on achieving full and productive employment and decent work for all, including women and young people		
102	136	
582	808	
204	196	
Not available	1:1,000	
0	4	
Not available	53.5	Data are as of 13 October 2010
Not available	110.6	Data are as of third quarter, 2010
Not available	43.7	

Note: ODA = official development assistance; FTA = free trade agreement; IDB = Islamic Development Bank; ADB = Asian Development Bank; IMF = International Monetary Fund; JICA = Japanese International Cooperation Agency.

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