Malaysia aims to become a high-income nation that is both inclusive and sustainable by the year 2020. Under its Economic Transformation Programme (ETP), Malaysia hopes to increase its gross national income per capita to at least US$15,000 by 2020, from its current level of about US$10,000 (PEMANDU 2010). Education is seen to play a central role in Malaysia's economic growth and national development. Thus the government has been investing heavily in education. In 2011, the government spent as much as 3.8 percent of its gross domestic product (GDP) on education, or 16 percent of total government spending, which is higher than the OECD average of 3.4 percent GDP or 8.7 percent of total public spending (MoE 2012). Starting from 2004, there were two ministries in charge of delivering educational services in the public sector, the Ministry of Education (MoE) and Ministry of Higher Education (MoHE), but these two ministries were merged in 2013 so as to ensure better coordination and increased efficiency of the education system. These ministries had produced blueprints and strategic plans for the development of the school sector and higher education sector, respectively. MoE launched its National Education Blueprint 2013–2025 (NEB) in 2013, while the MoHE launched its National Higher Education Strategic Plan (NHESP) earlier, in 2004.

The aim of this chapter is to examine these contemporary issues facing the Malaysian education system in three sections, namely, (1) access and equity, (2) quality and relevance, and (3) efficiency and effectiveness. In each of these sections, the analysis spans both the school level and higher education level.
Access and equity

School level

Unlike in many other countries, the education structure in Malaysia is from K–13 instead of K–12, with six years primary schooling, three years lower secondary, and four years upper secondary, which includes two years pre-university. Student enrolments in each of these levels are relatively higher than in most developing countries. In 2011, the primary enrolment rate was 96 percent, the lower secondary enrolment rate was 91 percent and upper secondary rate was 82 percent. Most students were enrolled in the public school system, with the private schools accounting for only 2 percent of primary enrolment and 4 percent of secondary enrolment (MoE 2012). At the end of each level, students have to sit for a national examination, namely, Ujian Penilaian Sijil Rendah (UPSR, Primary Assessment Test Certificate) at the end of year six, Penilaian Menengah Rendah (PMR, Lower Secondary Assessment) at the end of year nine, Sijil Pelajaran Malaysia (SPM, Malaysian Certificate of Education) at the end of year eleven and Sijil Pelajaran Tinggi Malaysia (STPM, Malaysian Higher School Certificate) at the end of year thirteen. Only two of these national examinations are selective: SPM for selecting students to enter pre-university programmes and STPM for selecting students to enter universities. Malaysia provides eleven years of free basic education. Under the NEB, MoE plans to extend the six years of compulsory education to eleven years starting at the age of six. It will also ensure that pre-school education becomes universal by 2020 for five-year-olds (MoE 2012).

Education is a federal matter in Malaysia, with the exception of some religious schools which belong to the states. To cater for the different preferences of a multi-ethnic population, there are types of schools which use different media of instruction. National schools use Bahasa Malaysia as the medium of instruction, national-type primary schools use either Chinese or Tamil, Chinese independent secondary schools use Chinese, private and international schools use English, and state religious schools use Arabic and Bahasa Malaysia. The advantage of these different types of schools is that they cater to parental choice, but increasingly, the different types of schools end up with students from one particular ethnic group only, which limits opportunities for social interaction across ethnic groups. The increasing ethnic homogenisation of schools is a major concern in terms of social cohesion and national unity. To counteract this trend, the government has introduced programmes such as the Student Integration Plan for Unity and Vision Schools, in which students from national-type schools are encouraged to share physical facilities for co-curricular activities, to give students from a particular ethnic group opportunities to socialise and interact with students from other groups.

As for equity, the issue is not only that disadvantaged groups gain access to education, but also to ensure that they have a certain degree of success after gaining admission. As the bumiputera group, which comprises 67.4 percent of the population, is considered a disadvantaged group in Malaysia (see Hwok-Aun Lee, this volume), special schools such as Fully Residential Schools and MARA Junior Science Colleges have been established to nurture outstanding bumiputera students. In addition, a special national examination known as the matriculation examination is designed mainly to select bumiputera students for admission to universities. Performance gaps also exist between rural and urban, gender and socio-economic groups. In general, urban students perform better than their rural counterparts, female students perform better than male students, and students from high socio-economic backgrounds perform better than do less well-off students. Under the NEB, the ministry aspires to halve current rural–urban, socio-economic and gender achievement gaps by 2020. Furthermore, it will invest in physical and teaching resources for students with specific needs, including those
Higher education level

The higher education system in Malaysia has expanded rapidly in the past three decades, with the active participation of the private sector. The gross enrolment ratio (GER) of the 17–23-year-old age cohort in 2011 is 36 percent. This percentage is comparable to the world average of 30 percent, but low when compared with other high-income countries. For example, the GER for Finland is 95 percent, for the United States is 90 percent, and for Japan and the United Kingdom is 60 percent. The NHESP sets a target of attaining a 50 percent GER by 2020 (MoHE 2004).

Table 24.1 shows the number of each type of higher education institution (HEI) found in Malaysia. There are a total of 573 HEIs, consisting of twenty public universities, thirty-two polytechnics, eighty-four community colleges, forty-seven private universities and university colleges, and 390 private colleges. Five of the public universities are research universities and five of the private universities are foreign branch campuses. While public HEIs are quite evenly spread throughout the country, most of the private HEIs are located near the capital, in the Klang Valley. In 2012, there were about 1.3 million tertiary students, out of which 58 percent were enrolled in public HEIs, 35 percent were enrolled in private HEIs and 7 percent were studying abroad.

To correct the economic imbalance among the ethnic groups in Malaysia, an ethnic quota system for admission into public universities was implemented from 1979 to 2002. This affirmative action policy was replaced by a so-called ‘merit system’. It is considered a so-called ‘merit-based’ university selection system because bumiputera students are selected for admission based on matriculation examination results, whereas non-bumiputera students are selected based on STPM examination results. Critics call the system unjust because the results of these examinations are not comparable (Lim 2013). The equity issue does not only involve different ethnic groups, however, but it also involves gender, the poor and indigenous people. Like in many other countries, there are more female students than male students in HEIs. The overall male to female ratio is 45:55, but it is even higher in public HEIs, at 40:60 in favour of females.

To widen accessibility and increase equity, the government, through its various ministries, has established HEIs and skills development centres throughout the country. Financial assistance for students is provided by various organisations in the form of scholarships and student loans. Nonetheless, the biggest funding body for HEI students is the National Higher

Table 24.1 Number of higher education institutions in Malaysia

<table>
<thead>
<tr>
<th>Types of institution</th>
<th>Number</th>
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<tbody>
<tr>
<td>Public university</td>
<td>20</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>32</td>
</tr>
<tr>
<td>Community college</td>
<td>84</td>
</tr>
<tr>
<td>Private university and university college</td>
<td>47</td>
</tr>
<tr>
<td>Private college</td>
<td>390</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>573</strong></td>
</tr>
</tbody>
</table>
Education Fund Corporation (NHEFC). NHEFC student loans are heavily subsidised by the government, and any student who is enrolled in an accredited programme is entitled to apply for a loan; however, the record shows that the number who default on their repayment is quite high and there is great concern about the sustainability of this funding mechanism (MoHE 2004).

Another increasing concern is related to qualification levels and fields of study. Currently, there are more students studying for degrees than engaged in non-degree studies. The ratio of non-degree to degree is 2:3. This imbalance is more obvious in the public HEIs, where the ratio is 1:3; the imbalance in private HEIs is much less (46 percent to 54 percent). Under the NHESP, the target ratio for non-degree to degree is 2:1. As for fields of study, the most popular ones are social science, business and law and the least popular ones are agriculture and veterinary. The challenge is to increase the number of graduates in science, technology and engineering in the country.

Quality and relevance

School level

One of the most controversial issues in Malaysian education is language policy. Although there are several different media of instruction for schools at the primary level, the point of convergence is at the secondary level, where all the public schools are taught in the national language, Bahasa Malaysia. English is taught as a second language in all public schools. In 1996, the teaching of mathematics and science in English was introduced, in recognition of the importance of English in the fields of science and technology as well as in the global economy and international trade. This policy was reversed in 2009, however, and these two subjects came to be taught in Bahasa Malaysia again as of 2012, despite protests from various quarters in Malaysian society (Soong 2012). To improve the standard of English, the ministry recently announced that English will be made a compulsory pass in the SPM examination from 2016 (Stareducate Team 2013). Under the NEB, the aim is to ensure that every child is proficient in both Bahasa Malaysia and English (MoE 2012).

The national education philosophy aims at the holistic development of all children: intellectual, spiritual, emotional and physical. The school curriculum comprises subjects that are similar to the world model (Benavot et al. 1991). Much emphasis is also given to co-curricular activities as well as Islamic education (for Muslim students) and moral education (for non-Muslim students). Under the NEB, the aspirations are for students to acquire knowledge, thinking skills, leadership skills, bilingual proficiency, ethics and spirituality, and national identity (MoE 2012).

Malaysia’s student performance in international assessment exercises has been quite discouraging, however. Malaysia has participated in the Trends in International Mathematics and Science Study (TIMSS) since 1999 and in the Programme for International Student Assessment (PISA) since 2009. It is reported that Malaysia’s student performance in both these assessments is declining (MoE 2012). These poor performances in international benchmarking exercises have led the MoE to revamp both its primary and secondary curricula. The New Secondary School Standard Curriculum and the Revised Primary School Standard Curriculum will be introduced in 2017. These new curricula will include financial education and environmental education. In a similar manner, national examinations will also be reformed, with increased school-based assessment to test for higher-order thinking skills (MoE 2012).
As mentioned earlier, racial polarisation, and sometimes even racial discrimination, are found in schools, which can be detrimental to social cohesion and national unity. Therefore, the challenge is how to inculcate shared values, how to provide shared experiences, and how to develop shared aspirations among the young so that they acquire a strong Malaysian identity, irrespective of ethnicity, religion or socio-economic status. The main thrust here is for young people from different ethnic groups to interact, to understand one another and to embrace cultural diversity.

In any discussion of quality of education, one cannot ignore the quality of the teaching force. The teaching force in Malaysia comprises both graduate and non-graduate teachers. While all teachers in secondary schools are graduates, there are still many non-graduate teachers in the primary schools. Many non-graduate teachers upgrade themselves, either on their own or through government scholarships, via open distance learning. The move is toward an all-graduate teaching force; however, the teaching profession does not usually attract talented young people because teachers’ pay in Malaysia is not competitive. Under the NEB, steps will be taken to transform teaching into a profession of choice by raising the entry bar for teachers from 2013 onwards, to draw from amongst the top 30 percent of graduates (MoE 2012).

**Higher education level**

With the rapid expansion and privatisation of higher education, the quality of higher education in Malaysia has become a great concern among the stakeholders of higher education. After an initial period of unregulated expansion, the Malaysian government took steps to regulate and consolidate the expansion of both public and private higher education. The governance and management of universities have been reformed, with an increase in institutional autonomy in return for more accountability (Lee 2012). The institutional autonomy of private universities and corporatised public universities has increased in terms of governance structure, academic matters, financial management, staff management, leadership appointment and student intake. At the same time, higher education institutions in Malaysia are increasingly being subjected to public accountability. In 2007, the Malaysian Qualifications Agency (MQA), formed from the merger of the National Accreditation Board (established in 1997 to monitor the standard and quality of higher education provided by the private sector) and the Ministry of Higher Education’s Quality Assurance Division (which monitored and evaluated the quality of higher education programmes in public universities), was established. The MQA is responsible for quality assurance in higher education, in both the public and private sectors. It accredits higher education programmes, carries out institutional audits and rates higher education institutions in Malaysia.

To improve the quality of teaching and learning in higher education institutions, the NHESP states that HEIs should undertake curriculum reviews at two- or three-year intervals, taking into consideration the views of academicians, industrial experts, government officials and members of non-governmental organisations. Curricular transformation should strive toward achieving stipulated learning outcomes such as soft skills, entrepreneurship, better ethnic relations, and proficiency in English and a third language. HEIs would leverage on the use of information and communications technology (ICT), innovative teaching and multidisciplinary approaches, and industrial training to enhance students’ learning experiences. HEIs would also upgrade and expand their postgraduate programmes, targeting a national doctoral-level enrolment of 55,500 students by 2020 (MoHE 2004). To achieve this target, the credibility of academic staff is to be improved. Currently, 75 percent of the...
Educational reforms in Malaysia

Academic staff in the five public research universities possess PhD qualifications, whereas only 40 percent do in the other public universities.

Malaysia aspires to be an excellent international hub of higher education. Over the years, the national higher education global network has been strengthened and the enrolment of international students in Malaysian HEIs has increased significantly, from 40,525 in 2005 to 72,456 in 2012. The government aims to increase the number of international students to 200,000 by 2020. The aim is to attract international students by the quality of higher education and its affordability. To attract more foreign students, the government has intensified overseas promotional programmes and taken pre-emptive measures to settle visa and immigration issues.

Malaysia recognises the importance of research, development and innovation (RDI) to support its national goals of becoming a high-income country and a progressive society. Gross expenditure on research and development in Malaysia has increased constantly as a proportion of GDP over the last two decades. The ratio has increased from 0.22 percent in 1996 to 1.07 percent in 2011 (MOSTI 2012); and by 2020, Malaysia aims to increase it to 2.0 percent. HEIs play a significant role in the development of RDI in Malaysia. To enhance RDI, Malaysia has established five research-intensive universities. The roles of these HEIs are to produce a critical mass of researchers, to establish research centres of excellence and to commercialise research. Under the NHESP, the targets are that by 2020 Malaysia will have at least six research universities, twenty centres of excellence, a critical mass of one hundred researchers, scientists and engineers (RSE) per 10,000 workforce, and that 10 percent of research products will have been commercialised, to boost the country’s position in the innovation capacity index (MoHE 2004).

A major concern in discussing the quality and relevance of higher education in Malaysia is graduate employability. It was reported that in 2010, about 24.6 percent of graduates had not found a job in the first six months after their graduation (MoHE 2011), while another 25 percent of graduates worked in areas unrelated to their field of study. The factors often cited for the problem of graduate unemployment include lack of core knowledge and competency in the jobs applied for, lack of communication skills and language proficiency, and lack of general knowledge. The challenge for HEIs in Malaysia is to increase the employability of their graduates by providing the right technical skills, soft skills and work ethic.

Efficiency and effectiveness

School level

The Malaysian education system is highly centralised, with authority concentrated at the Ministry of Education (MoE). A brief review of the administrative structure (Lee 2006) shows that at the national level, the MoE is responsible for the formulation of education policies, overall planning, control of all matters related to finance and expenditure, planning and implementing physical development, developing school curricula, and recruitment, training, and posting of teachers. The State Education Department (SED) in each state answers directly to the MoE. The SED functions as a regional agency, regularly receiving directives from the centre. It implements all educational programmes in schools within the state. In addition, the SED manages, monitors and supervises all matters concerning curricula, schools, teachers and students as well as public funds received from the centre. Each school is headed by a principal or head teacher, whose role is to implement all education programmes stipulated by the MoE, supervise and guide teachers to ensure the quality of teaching and
learning in schools, monitor and supervise students’ welfare with respect to their learning experiences, and establish good and effective relations with parents and the community.

As the number of schools, students and teachers has grown, however, the volume of work at the state level has also increased and become more complex. Therefore, district education offices were established in 1982. The roles of these offices are to facilitate administration and to liaise between schools and SEDs. The functions of district education officers (DEOs) are mainly supervisory, managing information and carrying out routine tasks. DEOs supervise schools, teachers and students at the ground level. They also establish good relations with parents and communities. They collect data on schools, teachers and students and pass that information to the SEDs, which use the information to make decisions. DEOs also disseminate information concerning rules and regulations from the SED to schools. In addition, they carry out routine tasks, such as maintaining school facilities and monitoring public examinations (Lee 2006).

To improve the efficiency of the Malaysian education system, the government aspires to ‘further maximise student outcomes within the current budget levels’ (MoE 2012: 14). Under the NEB, measures to be undertaken to improve the efficiency of the system include the following:

- To ensure high-performing school leaders in every school by introducing competency-based selection criteria and enhancing succession planning processes for school principals from 2013 onwards.
- To empower SEDs, DEOs and schools by allowing greater school-based management and autonomy, including greater operational flexibility over budget allocation and curriculum implementation.
- To leverage ICT to scale up quality learning across the country by providing Internet access and a virtual learning environment to all schools.
- To transform MoE delivery capabilities and capacity by strengthening leadership capabilities.

The MoE will partner with parents, communities and the private sector to improve the effectiveness of the education system. It will maximise student outcomes for every Malaysian ringgit invested by linking every programme to clear student outcomes. It will annually rationalise programmes that have low impact and shift towards outcome-based budgeting. It will also increase transparency for direct public accountability (MoE 2012).

**Higher education level**

In the past, the Malaysian government was the main provider of higher education. But with widening access to higher education, the state encountered tight budgetary constraints in sustaining the expansion of higher education, so it privatised higher education and corporatised the public universities. The rapid expansion of private higher education can be seen in the increased number of private HEIs and the wide range of educational programmes that are being offered. The number of private colleges has more than doubled from 156 in 1992 to about 390 in 2013. The increase in the number of private universities and university colleges is even more dramatic, from zero in 1995 to forty-seven in 2013 (Table 24.1). Over the years, private HEIs have evolved different modes of ownership. Some of them are profit-oriented enterprises, while others are not-for-profit. Besides differences in mode of ownership, private HEIs also differ in their market focus. Some of them offer a wide range of
programmes in various fields of study from the pre-university to postgraduate level, while others specialise in specific areas, such as health-related fields, art and design, language, hospitality, music, and so on. As in other countries, the survival of the private HEIs depends on their ability to experiment and innovate with different kinds of educational programmes so that they can offer more choices to their customers. The educational programmes offered by private HEIs in Malaysia can be broadly categorised into three groups, namely, (1) internal programmes, (2) transnational education programmes, and (3) programmes leading to qualifications awarded by external examination bodies (Lee 2004).

Besides the privatisation of higher education in Malaysia, public universities are being corporatised. In 1995, the Universities and University Colleges Act 1971 was amended to lay the framework for all public universities to be corporatised. Through corporatisation, public universities are freed from the shackles of government bureaucratic regulations and are run like business corporations. Corporatised public universities are empowered to engage in market-related activities, such as entering into business ventures, raising endowments, setting up companies, and acquiring and holding investments. The Malaysian government continues to own most of the public universities’ assets and to provide development funds for new programmes and expensive capital goods, but corporatised public universities are required to generate income for their operating costs.

As the higher education system has expanded, it has become more bureaucratic and regulated, so as to ensure consistency of treatment in various areas pertaining to the governance and management of HEIs. It has also become more complex, comprising a wide variety of institutions with different missions, scattered across different geographical locations, and thus difficult to manage centrally. Therefore, more decentralised management is needed to cope with challenges. The twenty public universities are divided into three categories, namely, (1) five research universities, (2) four comprehensive universities, and (3) eleven focused universities. Many public and private universities in Malaysia have adopted ‘corporate managerialism’ in their efforts to improve accountability, efficiency and productivity. Management techniques from the corporate sector, such as mission statements, strategic planning, total quality management, ISO (International Organization for Standardization) certification, right-sizing and benchmarking are being institutionalised in HEIs (Lee 2004).

The liberalisation of higher education in Malaysia has also resulted in a wide range of innovative public–private partnerships (Lee and Neubauer 2009). Examples include state governments partnering with private companies to establish state HEIs, public universities franchising their educational programmes to private HEIs, public universities partnering with private companies to engage in market-related activities such as setting up industrial parks and incubators, and the practice of outsourcing to private companies to provide various student services.

One of the thrust areas under the NHESP is to ‘reinforce the delivery system of the Ministry of Higher Education’ (MoHE 2004: 142). The objectives of this thrust are: (1) to ensure that higher education legislation and policies are always relevant and current, (2) to develop an effective delivery system, and (3) to ensure the accountability and quality of HEIs. The strategies proposed to achieve these objectives include the following:

• plan and streamline the implementation of policies, programmes and projects;
• establish a more effective higher education delivery system by widespread use of ICT;
• increase compatibility between graduates’ capabilities and job market needs; and
• practise international standards of monitoring to facilitate HEIs’ efforts at obtaining international recognition.
The challenge will be for the ministry to provide flexible working procedures, reduce bureaucracy and review higher education policy so that HEIs can have the space to grow and innovate as well as to be responsible and responsive to societal needs.

**Conclusion**

Effective, relevant, high-quality education plays a critical role in laying a foundation toward improving the nation’s competitive edge at the global level (MoHE 2004). Malaysia will continue to improve the general health of its education system through widening access, increasing equity, enhancing quality and relevance, and improving efficiency and effectiveness. The challenge is to implement both the NEP and NHESP with all their set targets and timelines, efficiently and effectively. Furthermore, these strategic plans need to be reviewed on a regular basis so that the Malaysian education system can meet changing economic and societal needs.

The successful implementation of these plans will require not only adequate resources, but also that special attention be given to a whole range of educational issues. Contemporary issues include concerns over social cohesion and national identity, language policy, admission policy to higher education institutions, quality of the teaching force, the shift away from rote learning to the development of higher-order thinking skills, the employability of graduates, return on investment in research and development, and the delegation of authority and responsibility to the state level and deconcentration of routine tasks from SEDs to the district level in the administration of the school system.

**Notes**

1. The five research universities are Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), Universiti Putra Malaysia (UPM) and Universiti Teknologi Malaysia (UTM).
2. The five foreign branch campuses are Monash International University, the University of Nottingham Malaysia campus, Curtin University of Technology Sarawak, Swinburn University of Technology Sarawak and Newcastle University Medicine Malaysia.
3. For example, through the Public Service Department (PSD), Majlis Amanah Rakyat (MARA), Tunku Abdul Rahman Foundation (Yayasan Tuanku Abdul Rahman), PETRONAS, Yayasan Telekom Malaysia, Yayasan Tenaga Nasional, Khazanah Nasional, as well as foundations and state governments.
4. With the merger of MoHE and MoE, the National Higher Education Strategic Plan is currently under review.

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Educational reforms in Malaysia


