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Cultural Organization

Malaysia

Education Policy Review

Abridged Report, May 2013

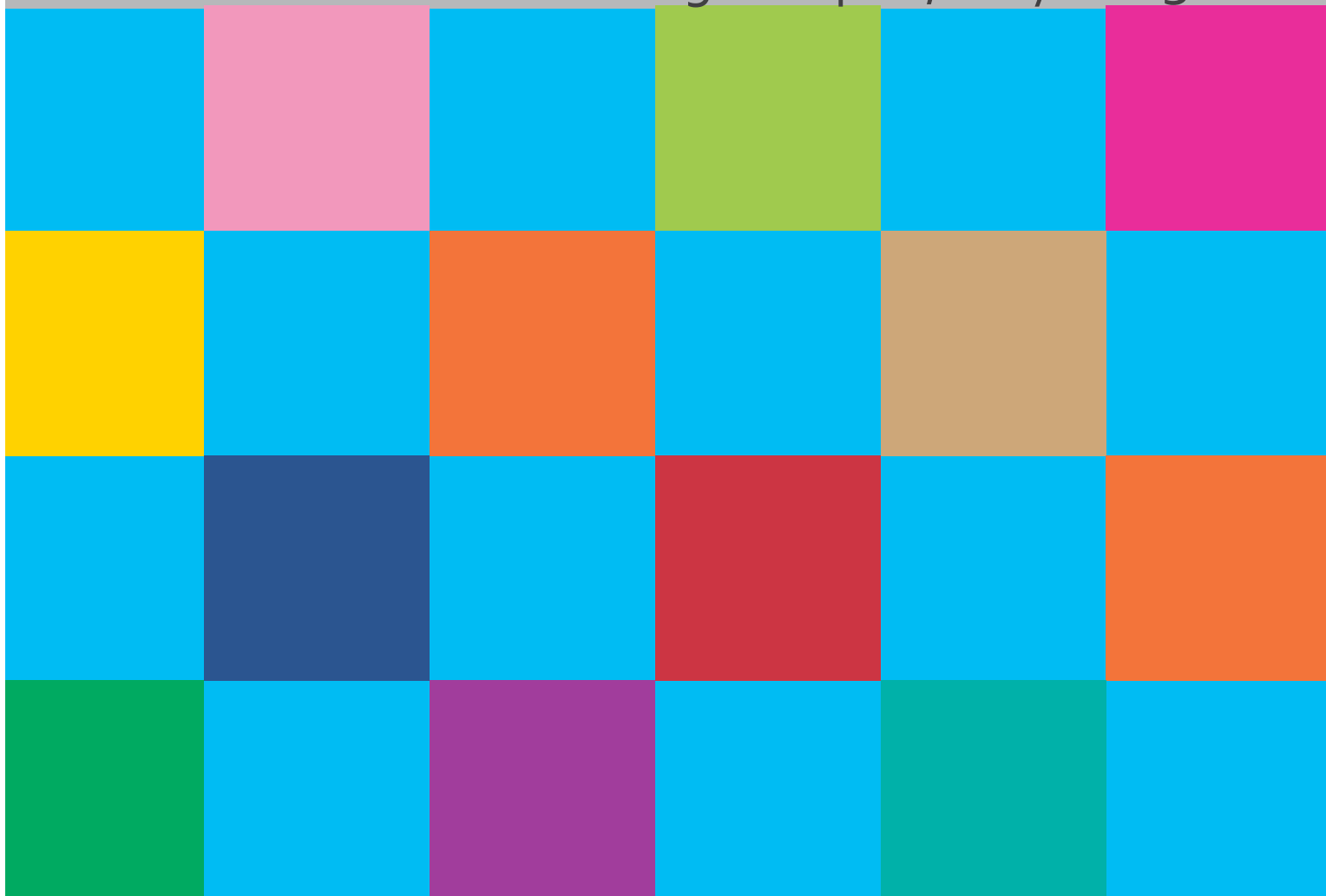


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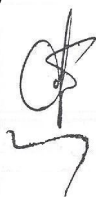
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Preface

The Malaysia Education Policy Review by UNESCO marked an important turning point for education in Malaysia, mainly because the evaluation in itself was the Ministry of Education Malaysia's first effort to conduct an objective and comprehensive assessment of our education policy. In addition to this, the findings of the evaluation and the recommendations for improvement made by the UNESCO research team have provided invaluable input in developing the Malaysia Education Blueprint 2013 – 2025.

It gives me great pleasure to introduce this abridged version of the Malaysia Education Policy Review which I believe has successfully captured the essence of the original report which was submitted to us in 2012. The entire evaluation process has been clearly defined by the team and data based on the five priority areas that we had identified and some cross-cutting issues and challenges that relate to all policy areas have been condensed for easy reference. I am certain that this abridged version of the Malaysia Education Policy Review would provide an overview of what a collaborative project such as this one would entail. More importantly, it would serve as a basis for evidence-based policymaking and evidence-based decisions on matters pertaining to education.

Thank you.



Tan Sri Abd. Ghafar bin Mahmud
Director-General
Ministry of Education Malaysia

Introduction

Since gaining independence in 1957, the Federation of Malaysia has focused considerable effort on developing and improving its national education system. This is clearly reflected in a significant financial investment in education, comprehensive educational plans, and subsequent policy reforms to meet evolving national aspirations and global demands. In fact, the Malaysian education system can be regarded as an example of a model developed to support nation-building and economic growth.

While it is certainly true that variations exist across and within the districts and states across Malaysia, the fact is that at the aggregate level, primary level completion rates have continued to increase while school dropout rates have declined. Challenges remain, but as most recent studies indicate, Malaysia is not only on track to achieve the Millennium Development Goal of Universal Primary Education but will also be close to universal schooling in lower secondary education by 2015. This commendable achievement would not have been possible without the commitment of the Government and all education stakeholders in Malaysia.

But how does Malaysia stand internationally? When compared to the region's high-performing education systems with regard to student achievement, there appears to be room for improvement. Given Malaysia's ambition to become a developed nation by 2020, its education system is challenged to improve not just in terms of access and equity, but also in terms of the quality of its outcomes.

This is, of course, not unknown to the Malaysian Government. In its commitment to improving education, Malaysia has continued to look toward the experience of other countries, including its regional neighbours and where possible to benefit from international perspectives. In this regard, UNESCO, with its commitment to support improvement in access, equity and quality of education systems of its Member States will always stand ready to assist Malaysia in achieving its national goals.

The Malaysian Education Policy Review (M-EPR) has been a great learning opportunity for all. We say this not just in reference to the hard contents of this report, the findings, the evidence gathered and recommendations provided. We say this also in reference to the strengthened appreciation that we have gained for the uniqueness of the Malaysian education system, for the distinctive strengths and challenges faced and the need for a suitably Malaysian 'flavour' to any reform measure.

We hope that the M-EPR provides a useful contribution to the Malaysian Government's on-going efforts to strengthen its education system. We also hope that the present paper, which is an abridged version of the M-EPR report, provides useful references for other countries to the unique experience of efforts deployed by Malaysia in its bid for "Vision 2020" through formation of high-quality human resources.

Finally, we have been pleased to follow the progress of our staff and their experiences in Malaysia throughout the review process. They acknowledge the challenges facing the education system. But they also acknowledge the genuine and spirited professionalism of ministry officials, teachers and school leaders and a shared appreciation of the great importance of quality education at all levels.

With this alone, we believe wholeheartedly in the potential of Malaysia to achieve the goals it has set and UNESCO stands by our commitment to support Malaysia in every way possible.

David Atchoarena
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Acknowledgements

This report is an abridged version of the Malaysia Education Policy Review (M-EPR) commissioned by the Government of Malaysia. The M-EPR report was produced by a review team lead by Francesc Pedró (UNESCO Paris) including international experts and staff from both UNESCO Headquarters (Paris, France) and from UNESCO Bangkok (Asia and Pacific Regional Bureau for Education) whose contribution was coordinated by Gwang-Chol Chang

The review of curriculum development was led by Phil Stabback (consultant, UNESCO International Bureau of Education) with Edmond Law (Hong Kong Institute of Education). The review of assessment was led by Oon Ying Chin (Department of Education, Employment and Workplace Relations of the Australian Government) with Ramya Vivekanandan (UNESCO Bangkok). UNESCO would like to thank the Australian Government's support for this project through Oon Ying Chin's participation. The review of ICT in Education was led by Nancy Law (Hong Kong University), with Fengchun Miao (UNESCO Paris) and Jonghwi Park (UNESCO Bangkok). Eilean von Lautz - Cauzant (UNESCO Paris) provided the section on teachers and drafted, together with Jennie Ekedahl and Kate Glazebrook (UNESCO Bangkok), the introductory chapters with contribution from Coral Ruano and Marion Yamaguchi (consultants, UNESCO Paris) and building on the literature review conducted by UNESCO Bangkok. John Polesel (University of Melbourne) led the review of technical and vocational education with Youngsup Choi and Rachel McCarthy (UNESCO Bangkok). Margarete Sachs-Israel, Lay Cheng Tan and Huong Le Thu (UNESCO Bangkok) contributed to the background paper for the policy review and provided peer-review of the sections on teacher and curriculum developments. Gwang-Chol Chang, Satoko Yano and Rachel McCarthy (UNESCO Bangkok) were responsible for the section on cross-cutting themes. Mark West (Fulbright fellow at UNESCO Paris) contributed to the interim report that served as a basis for this final report. The overall coordination of the report was under the responsibility of Francesc Pedró, with support from UNESCO Bangkok.

The M-EPR report would have not been possible without each of these contributors but what made the review a rewarding experience for all involved was the dedication of the Malaysian team headed by Dr Faridah Abu Hassan and Dr Zainal Aalam Hassan, Ministry of Education, and colleagues from the Ministry of Higher Education. We would like also to thank the Secretariat of the National Review Team headed by Dr Zabani Darus and Dr Asmah Ahmad. And we acknowledge, with deep appreciation, Director General Dato' Sri Abd Ghafar Mahmud and Deputy Director General, Datuk Dr Khair Mohamad Yusof, Ministry of Education, for their guidance and support to UNESCO in this review process. Special thanks go to Y.A.B. Tan Sri Dato' Haji Muhyiddin Bin Mohd. Yassin, Deputy Prime Minister, Minister of Education, who personally initiated this policy review and asked UNESCO to provide frank and open suggestions that can help further enhance and align the national education system with Malaysia's vision to reach high-income status by 2020.

To all members of the national team who provided their assistance with enthusiasm and warmth, we thank you deeply, and to all those we have had the pleasure to interview, including government officials, school leaders, private sector representatives and members of the community, our sincere appreciation for your help and cooperation.

The Malaysia Education Policy Review

Background

The Malaysia Education Policy Review (M-EPR) was initiated through a Memorandum of Understanding (MOU) between the government of Malaysia and UNESCO in November 2010. The MOU required UNESCO to “evaluate the aims, strategies and achievements of the Malaysian education system in relation to its national and international contexts, its stated development goals and in comparison to international trends and standards.” The education policy review analysed five specific policy areas, while taking a sector-wide perspective of education development.

Areas covered

As it had been determined in the MOU, UNESCO was assigned to focus on the following five education policy areas:

1. Teacher development
2. Curriculum development (with a focus on sciences and maths)
3. Assessment (with a focus on school-based assessments and examinations)
4. Technical and Vocational Education and Training (TVET)
5. Information and Communication Technology (ICT) in education

Procedure

The M-EPR involved two phases.

1) Interim Report

To begin with, an interim report was prepared with the objective of assessing achievements in the education sector and identifying possible shortcoming and underlying causes. This interim report was submitted on February 13, 2012, and based on three different sources: First, a national background report produced by an appointed national team on behalf of the Ministry of Education and Ministry of Higher Education. This report gave an account of the education sector performance, especially in the priority areas under review, and was later complemented by an internal self-assessment.

2) Detailed Analysis

Secondly, a detailed analysis of education system and policy based on the secondary research and interviews conducted by UNESCO was provided, including also international comparative perspectives. To support this, several field visits to schools, educational institutions, and non-government stakeholders including private sector representatives, government offices and ministerial departments throughout the country, including Kuala Lumpur, Putrajaya, Sarawak, Selangor and Melaka were organized. This phase was followed by a second round of field visits during April 2012. Findings of the Interim Report were verified and feedback from the MOE included. Hereupon, first recommendations for improvements at the system level and in the five priority areas were provided.

The final report was officially submitted to the Ministry of Education in May 2012.

Structure of the final report

The MOU had also set guidelines for the different chapters of the final report. The following presents an abridged version¹.

The first chapter of the M-EPR summarises socio-economic characteristics of Malaysia and of the Malaysian education system, in order to embed the subsequent description of issues and recommendations as part of a wider development context. The second chapter offers a performance analysis, assessing the education system mainly in terms of access and participation in education, the quality of educational provision, issues of equity and efficiency and effectiveness of school education. The third core chapter consists of an in-depth assessment of the selected five priority areas, including identification of critical policy issues based on corresponding supporting evidence, a discussion of their relevance and followed by policy recommendations concerning possible approaches to tackle policy issues. Finally in the last chapter, system-level issues and recommendations cross-cutting all the five priority areas are presented.

¹ The final report can be obtained from the Ministry of Education.

The Malaysian Education System

Educational structure

The Malaysian national education system (formal education) consists of five levels: pre-school, primary education, lower secondary education, upper secondary education, and tertiary education. The eleven years of basic education is free (up to upper secondary education), however only primary education is compulsory.

Pre-school education in Malaysia is aimed at children of 0-6 years, with childcare and nursery programmes for children aged 0-4 and kindergarten for children aged 4-6. Children are admitted to **primary education** at age 6 for a period of six years. There are two types of primary schools: national school (taught in Bahasa Malaysia) and national-type schools (taught in Mandarin or Tamil). After six years, all students take the Primary School Assessment Test (UPSR) to gain a primary school certificate. Graduates of national-type schools are then required to take an additional year of schooling to gain proficiency in Bahasa Malaysia to be eligible for secondary education.

After completing three years of **lower secondary education**, all students take an examination to receive their lower certificate of education. Based on the results of this examination, students are then enrolled in academic, technical, vocational or religious (Islamic) schools. **Upper secondary education** lasts two years. Those in the academic and technical tracks take the Malaysian Certificate of Education Examination (SPM), while those in vocational tracks take the Malaysian Certificate of Education (Vocational) Examination.

Tertiary education institutions include community colleges, polytechnics and universities offering certificates, diplomas and degrees in a range of areas. A 1.5 year post-secondary education programme prepares students for the Malaysian Higher Secondary School Certificate, required to access universities. Alternatively, matriculation courses of one-year duration prepare students for certain universities or colleagues. Certificates are awarded through vocational or professional programmes and last one to two years. Programmes leading toward a diploma last two to three years, while university bachelor degree programmes can last three to four years or, in some cases, five years for fields like medicine and dentistry. A master degree or advanced or specialist diploma requires an additional one to two years of study. Three years is the minimum duration of study for a doctoral degree programme.

Overall performance in comparative perspective

In terms of participation, Malaysia² has significantly increased pre-school enrolment rates during the last decade (51% in 2000 to 67% in 2009) and presents good enrolment rates in primary (96% in 2005) and in lower secondary education (91% in 2008). These rates testify to an appreciable expansion of access and bring the country closer to its goal of providing universal basic education. Enrolment rates in upper secondary education, however, remain significantly lower (at 50%)³, compared to other countries in the region. Looking at secondary education holistically, gross enrolment has hovered around 69% since 2004, a figure significantly lower than rates found in other countries in the region, especially in Japan and the Republic of Korea where net and gross enrolment exceed 95%. Participation in tertiary education has continued to increase over the last few decades and was 40% in 2009. In the region, the country is in an intermediate-low position and Malaysia is

² All statistics are taken from UNESCO Institute of Statistics unless otherwise stated.

³ It is important to note is that the MOE, in contrast to the UNESCO Institute of Statistics (UIS), estimates gross enrolment rate for upper secondary to be 80%. In the UIS calculation, Form 6 (post-secondary education in Malaysia) is considered as a part of secondary education, which resulted in lower enrolment rate for secondary education in Malaysia.

still lagging behind the more developed countries such as the Republic of Korea (104 %), Japan (59 %), Australia (76 %), and New Zealand (83 %).

Technical and vocational education appears to serve the needs of a relatively small number of students and, therefore, does not yet represent a core pillar of the larger education system.

Quality

In this report, quality refers to the conditions that shape actual teaching and learning in the classroom, including the working conditions for teachers and average class sizes. In Malaysia, this is above par in the region and leaves the country in a position close to many developed countries. In primary education Malaysian students are amongst those receiving more instructional hours. At the same time, according to available data (TALIS, OECD), teacher qualifications in lower secondary education in Malaysia appear to have improved but remain fairly low compared to international standards. For example, only 1% of Korean and Australian teachers failed to attain a bachelor degree while 13% of teachers do not have a bachelor degree in Malaysia. In addition, 35% of Korean teachers and 16% of Australian teachers have master degrees or higher levels of education, while the corresponding figure is 7.5% in Malaysia.

Equity

Equity is another dimension crucial when assessing performance of education systems. In Malaysia, around 6% of primary school age children were still not in school in 2009, putting Malaysia in an intermediate position compared to other countries in the region. There is no significant gender difference in enrolment in primary education. In fact, Malaysia has the lowest gender parity gap in the Asia-Pacific region. Girls tend to stay longer in the education system than boys, leading to reversed gender disparity at higher levels of education, as seen in many other countries in the region. Significant differences between urban and rural areas were found, both in terms of provision of education and educational attainment. For instance, Sabah and Sarawak have particularly low rural literacy rates (MOE, 2008), lower enrolment ratios and lower proportions of children who complete grade 5 (UNDP, 2005). The 2000 and 2005 data showed that the overwhelming majority of children out of school are located in Sabah and that the drop-out rates from primary schools are much higher there than in other states (MOE, 2008). Similar to many other countries, urban schools in Malaysia tend to have better infrastructure and more resources than rural schools. In fact, some rural schools lack even basic amenities such as clean water, electricity, telephone lines and computer and science labs. Apart from resources, rural schools sometimes face shortages of qualified teachers.

Effectiveness

When it comes to effectiveness, the report examines the performance of the Malaysian system drawing on select indicators. The overall picture shows that the system has been able to raise literacy levels significantly as well as the educational attainment of the population in the last several years. In 2010 the youth literacy rate was 98% and the adult literacy rate was 93%, figures similar to those of Thailand, Indonesia, Vietnam, Sri Lanka and the Philippines. Yet, when the system's effectiveness is assessed against student performance in mathematics and science on internationally administered tests (TIMSS and PISA) Malaysia's performance has been mixed. The results from TIMSS show that the performance of Malaysian students has declined from 508 in mathematics and 510 in science in 2003 to 474 and 471 respectively in 2007. Nonetheless, Malaysia has been performing above the average of participating TIMSS countries consistently, especially in mathematics. However, out of 74 economies that participated in PISA, Malaysia ranked 55th in reading and 57th in mathematics, well below the OECD average, yet comparable to results in Thailand and results found in other middle income countries.

Efficiency

Contrasting assessment results with expenditure in education helps provide insight to the efficiency of the education system. In Malaysia, the slightly higher level of expenditure has yet to translate to high level student performance. Instead, student performance is roughly equivalent to that found in Thailand which has a lower public expenditure on education as percentage of GDP. In fact, public expenditure on education in Malaysia is higher than average for the region and measured as a percentage of GDP, Malaysia spends 5.8% which is more than the Republic of Korea (4.8%), Japan (3.8%), Australia (5.1%) and Hong Kong SAR (3.6%). Public expenditure per student in primary and secondary education is roughly equivalent to levels in other countries in the region, while its expenditure per student in tertiary education, as percentage of GDP per capita, is far above average at 60.7% (2009). Indeed, the Malaysian Government spends approximately three times as much money in terms of GDP per capita on every tertiary student than it does for each primary school student.

In conclusion, the overall assessment of the Malaysian education system shows significant achievements in relation to access and quality, a mixed picture in terms of equity and effectiveness and space for further strengthening of its efficiency.

Priority Domains: Achievements and Challenges

The following sections provide a summation of achievements and challenges across five education policy areas of national priority as requested by the Government of Malaysia. These areas are:

- Teacher development;
- Curriculum development, with special attention to sciences and maths;
- Assessment, especially school-based assessments and examinations;
- Technical and Vocational Education and Training (TVET), and;
- Information and Communication Technology (ICT) in education

Teacher Development

Malaysia promotes strong professional standards and working conditions for its teachers above par in the Asia-Pacific region, as supported by national and international studies.⁴ Indeed, an important part of the public investment in education goes toward teacher compensation and incentives. In terms of salary, the ratio of teacher pay relative to per-capita GDP is estimated at 3.9, while comparable figures for OECD countries are in the range of 1.5-2.0. Both primary and secondary teachers are trained in one of the 27 Institutes of Teacher Education (ITE) that offer Bachelor of Teaching programmes, Post-graduate Education Courses and Diploma in Education courses. Several reforms such as the Special Graduate Programme and the Degree Programme for non-graduate teachers seek to increase the number of primary and secondary school teachers with graduate-level training. Under *The 10th Malaysian Plan (2011-2015)*,⁵ the Teacher Graduate Programme will continue along this track. Other reforms seek to change the role and instruction methods of teachers in order to adapt to the needs of a “knowledge-based” economy. In general, there is an increasing interest in Malaysia to attract, retain, motivate and develop teachers.

Despite these achievements, a number of challenges which may impinge high quality teachers and teaching practices were identified as summarized below:

- Despite Malaysian teacher certifications, the number of inadequately trained teachers, especially in primary schools, may impact negatively on the quality of instruction.
- While Malaysian teachers are relatively well paid, there is still need to encourage more high-quality graduates to the teaching profession.
- In-service training is common in Malaysia, and teachers are formally required to receive such training annually. However, the number of teachers actually benefitting from valuable in-service training programmes could further improve. This is especially true for primary school teachers.
- There is a generally high commitment of teachers to their students, yet a lack of administrative support within schools, especially primary schools, and/or an overload of administrative work for teachers may hinder the ability of Malaysian teachers to devote more time to their students.
- While the principle of “meritocracy” is accepted and respected, there are questions concerning the possible negative impacts of allocating funds to schools based on arguably narrow measures of academic excellence.

⁴ UNESCO Institute for Statistics. 2008. *A view inside primary schools - a world education indicators (WEI) cross-national study*. Montreal, UNESCO, p.51.

⁵ Economic Planning Unit. 2010. *Tenth Malaysia Plan 2011-2015*. Prime Minister’s Department, Putrajaya.

- While there are many training courses available to school principals, education leaders and administrators designed to promote leadership, school leaders could be further empowered as “leaders”, rather than “managers”.

Curriculum Development

In recent decades, Malaysia has demonstrated strong commitment to improving learning outcomes for its young people by making a number of very significant reforms to its school curriculum. In an effort to develop the very best curriculum, Malaysia has implemented five major curriculum reforms since it formally gained independence in 1957. In 2011, the curriculum was again enhanced with an increased focus on important ‘soft skills’ such as creativity, innovation, entrepreneurship and ICT. This is consistent with international trends away from students memorising information towards the development of life and work competencies.

Despite this strong commitment, a number of challenges need to be overcome to support current curriculum reform efforts. These include challenges related to: 1) the high level of centralisation in policy making and regulation; 2) the impact of a number of ‘external’ factors on the quality of teaching and learning; and, 3) building capacity and empowering teachers for policy change. Various issues related to these challenges are summarized below.

1) The high level of centralisation in policy making and regulation

- Clear understanding of the nature of current reform efforts is required across all levels, as well as deep understanding of the fundamental changes to teaching and assessment methodologies and to administrative and management practices (including coordination between the various bodies responsible for managing and implementing change at the central level, as well as communication, dissemination and teacher training and support).
- An approach to curriculum for Malaysia may need to be more flexible and adaptable to meet the range of student and local community needs.
- Both the intended and implemented curriculum must cater further still for the full range of student abilities. In particular, the curriculum should provide gifted and talented students with opportunities to extend their learning in ways that encourage the development of higher-order thinking and problem-solving skills.

2) The impact of a number of ‘external’ factors on the quality of teaching and learning

- It should be further recognized that examinations serve just one component of an assessment approach which should also include more informal and regular school-based assessment events designed to give teachers and others (such as parents) reliable information regarding student progress in a range of domains.
- Despite the strong focus on science and mathematics, student performance has been low by measure of international assessment and improvements in these areas are needed.
- An “overcrowded” curriculum, most often resulting from subjects and topics being constantly added to the curriculum while nothing is removed, means student competencies may not be fully developed.
- The change of language of instruction in mathematics and science requires further review given its bearing on learning quality and the capacity of students to achieve learning outcomes.

3) Building capacity and empowering teachers for policy change.

- While teachers in Malaysia are generally highly committed, there are many schools in which understanding of the principles and concepts contained in the new curriculum may be weak and classroom practice very traditional.
- It is critical that the system take a parallel and complementary approach to both curriculum development and teacher professional learning.
- While teachers generally want to spend as much time as possible on their core duty – to teach well in their classrooms- system demands (including clerical and administrative duties for teachers) may impede them from doing so.

Examinations and School-based Assessment

Malaysia has a strong tradition in structured formal assessment. Since independence, the country has made significant public investments into the architecture necessary to sustain a uniform national assessment system across the 13 states and three federal territories. Over the years, the school education system has undertaken much reform and made adjustments in order to meet the needs and aspirations of a fast developing economy, in which graduates are required to have transversal skills in order to respond to contemporary challenges. Assessment instruments, including the well-established centralized examinations, must respond to changing needs in order to continue to be fit-for-purpose. This means using existing expertise in centralized examinations to most effect, streamlining those initiatives that add low value and investing in new expertise in other forms of assessment, particularly in support of the school-based assessment reform.

Successful steering of this new modality of assessment through a still challenging period of development requires the establishment of well-defined priorities and a clear line-of-sight between aspirations, objectives, instrument design and implementation. In addition, reform in the domain of assessment is rarely only about the policy content; it is every bit as much to do with execution, buy-in and trust in governing institutions. Building strong relationships with stakeholders within the education supply chain, as well as its end-users, is good practice and will help to underscore successful assessment reform. The key issues identified are summarized below.

- High-stakes examinations, which appear to dominate the assessment landscape and which may present adverse and distortive effects, may need dampening down.
- The greatest care and caution should be applied in the use of mass-scale psychometric testing as well as the retention of test results, given the significant capacity for these personally sensitive test results to be used to shape the future of individuals. The use of such tests should be governed by clear and transparent policy guidelines.
- In order to ensure that the new school-based assessment reform delivers the desired outcomes, articulating aspirations into clear policy objectives may provide greater clarity about what outcomes are being sought, which of these have greater priority if all cannot be achieved and what the trade-offs might entail.
- There appears to be unexplored potential for strong productive relationships with those bodies that have the capacity to play active roles in shaping the new assessment regime (including tertiary education institutions, employer and parent bodies and NGOs).

ICT in Education

Malaysia has achieved an impressive progress in integrating ICT into its education system in both policy and practices. Indeed, Malaysia is one of the first countries in Asia and the world to have pioneered a strategic ICT-in-education development plan. The first such policy was introduced in the *Sixth Malaysia Plan* (1990-1995), as a fundamental tool for the nation to achieve *Vision 2020*. Since then, the integration of ICT into the education system further mapped out in sequential or parallel education policies and plans, including Malaysia's National ICT Agenda (NITC) in the *Seventh*

Malaysian Plan (1996-2000), Multimedia Super Corridor (MSC) in 1996, the Malaysian Smart School Roadmap (2005-2020) and the Educational Development Master Plan (EDMP) (2006-2010). The MOE launched Education Strategic Plan (2011-2015) and a study on Teacher and Student ICT Competency Standards is currently being carried out in schools and the Teacher Training Institutes throughout the country. This is an impressive array of policies and plans developed over the last two decades and the ultimate goal of all these efforts is to enhance the knowledge and innovation capacity of the nation.

Despite the impressive array of policies and plans over the last two decades, the review revealed that Malaysia is now behind many of its benchmarking countries in the region even in the basic ICT infrastructure such as computer-student ratio and internet connectivity. The findings indicate that there remain important challenges for Malaysia in integrating ICT in education to realize its policy goal of moving forward to a knowledge and innovation driven economy. The challenges appear to be closely associated with a series of systemic issues in policy formulation, implementation, monitoring, feedback and response. The key issues identified are summarized as follows:

- A clearly articulated roadmap is needed with progressive goals, targets and appropriate resourcing to guide a national developmental pathway to realize the ultimate educational goal of nurturing first world talent for a knowledge economy.
- ICT in Education needs to be positioned as an essential enabling factor in education reform initiatives.
- Setting up systematic supporting mechanisms is needed to motivate and facilitate schools and teachers to undertake ICT-supported pedagogical and assessment innovations.
- Consistent criteria is needed to evaluate, support, monitor and reward innovative practices at teacher and school levels.
- Capacity for leading innovation and flexibility for implementation is needed to achieve the policy goals for ICT and hence, change management strategies should be in place to encourage innovations at all levels, establish mechanisms for grass-roots participation in policy and implementation decisions and foster discursive dialogues among partners and stakeholders.
- To enhance the inclusiveness of the ICT in Education policy and implementation, it is recommended to introduce a supporting scheme for the underprivileged students who do not have computer and Internet access at home to gain access (e.g., subsidized home ownership programmes) and address some persistent digital and educational divide issues.
- Data management has to be an integral part of a top-level coordination to avoid fragmentation of ICT-based data collection, processing and analysis.

Technical and Vocational Education and Training

Malaysia clearly values its TVET programmes, which are delivered by providers and administered by a range of Ministries. In fact, the targets for 2020 are that there will be 274 Vocational Colleges (182 public Vocational Colleges under MOE) with 324,300 students, comprising 40.5% of total Upper Secondary Education (USE) enrolments. In 2012, there were 78 vocational schools with 45,620 enrolments comprising 5.35% of total USE enrolment. These reforms are intended to improve the status of TVET and to help to achieve ambitious targets for increased TVET participation at the USE level. These ambitious targets reflect the Government's awareness of the importance of TVET. However, they will require substantial investment in facilities or a better use of resources, or both.

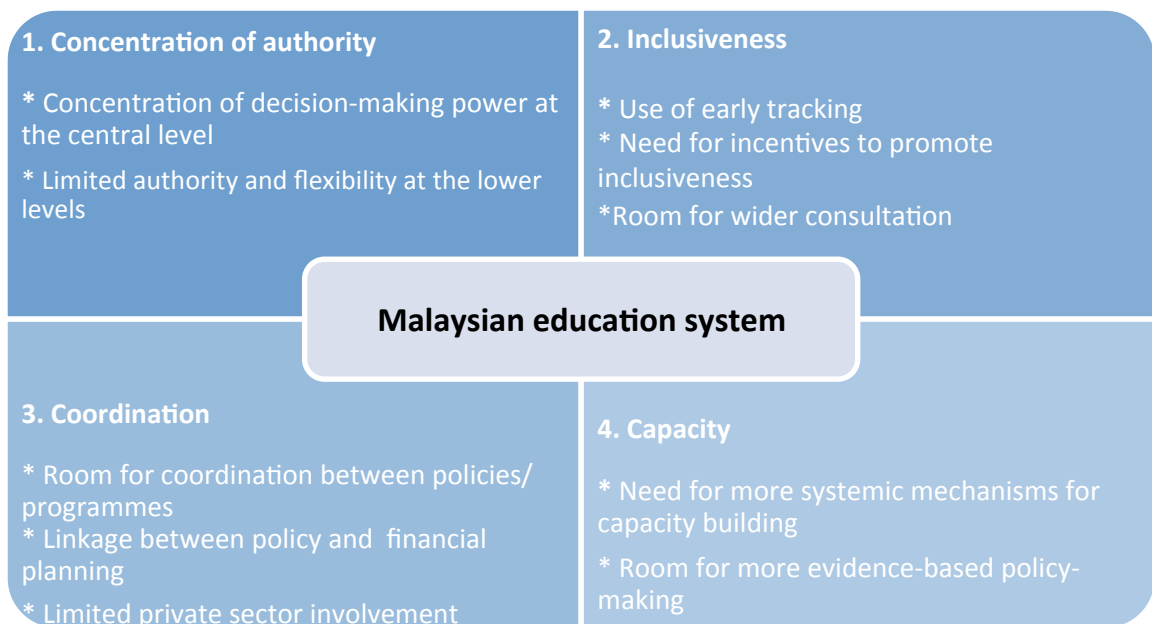
Its principal challenge is to ensure high quality, coordinated provision which builds on strong generic competencies in young people and which makes optimal use of the public and private resources available – including staff, facilities and equipment and financial subsidies and incentives. In order to improve TVET in Malaysia and support current reform initiatives, a number of challenges will need to be addressed. These challenges are summarized below.

- While the policy concern about early school leavers is completely justifiable, there should be closer examination of the possible negative impacts of introducing general-vocational tracking (i.e., junior vocational education: JVE) at the lower secondary level especially from an equity perspective.
- The need to strengthen counselling in schools is noted in recent policy (10th Malaysia Plan: p. 218). However, there may be further need to improve the quality of this counselling by developing the careers information system and expanding counselling services, first focusing on the transition from LSE to USE and VCs to eventually cover all students from primary to higher levels.
- While introducing the new Vocational Certificates and Diplomas may reflect the need to differentiate the course design of Vocational Colleges from those in upper secondary schools, Community Colleges, Skills Institutes and Polytechnics, it is important to ensure this does not create greater complexity of the qualification system in Malaysia.
- While the MOE is working to encourage private investment in TVET, careful review of the current practices of employer engagement and efforts to develop a more systematic way of ensuring the employers' influence in a more effective manner may also be needed.
- While financial support policies exist for students, such financial supports are currently provided by different ministries with different standards and eligibility requirements. There is need for harmonization of fee policies and, in particular, allowance policies across ministries based on a comprehensive review of the financial support measures adopted by different ministries.
- Despite success in Work-Based-Learning (WBL), closer investigation of the actual process of WBL with a special focus on the programme design, implementation process, actual competencies acquired by students, assessment criteria and process is needed.

Cross-cutting and Overarching System Issues

Malaysian education pursues the formation of quality human capital to support a knowledge-based economy in the information age and the Government plans to reach high-income status by 2020. To this end, the Malaysian education sector aims to provide quality education for all by achieving greater access, equity and quality education (*The Education Development Master Plan 2006-2010*) with focus on efficiency and effectiveness of the education system and policy management as critical success factors to achieving these objectives. The collective findings of the review teams indicate that Malaysia has made remarkable progress in ensuring quality education for all in recent decades. Malaysia's emphasis on education as a critical force for national unity and development is clearly articulated in policy documents and has been pursued under strong leadership. Education is a top priority in Malaysia's development strategies and particular attention is given to the development of human capital and the creation of a high-quality talent base. The education policy review in previous sections focused on identifying issues in select priority policy areas that are crucial to further improving education in Malaysia.

During the review process, some cross-cutting issues and challenges pertinent to all policy areas reviewed emerged. The review team considered these core and overarching issues that require attention not only from each of the priority policy areas, but also from the sector-wide perspective, especially in regards to efficiency and effectiveness of policy and its implementation, which in turn may be conducive to greater access, equity, and quality in education. These issues include 1) Concentration of authority; 2) Inclusiveness; 3) Coordination; 4) Capacity.



Concentration of authority

While centralized authority is common amongst most education systems, analysis of the five policy areas or domains suggests that the concentration of authority at the MOE in Malaysia has a particularly strong influence on sector performance. Concentration of authority emerged in respect not only of the way decision-making is exercised but also how consultation is organized and the opportunities provided at lower levels of management to adapt and innovate in education delivery. The broad range of roles and responsibilities assumed by the Ministry of Education has also had implications on the size of central administration, which is large by international comparison. Such concentration was necessary especially at the initial nation building stage where Malaysia was

developing its industries, by ensuring certain level of education attainment throughout the country despite its economic, social, linguistic and cultural diversity. However, as Malaysia looks toward developing a more knowledge-based economy, such one-size-fit-all system may not be promoting innovation and creativity so crucial for transforming the economy. A less rigid system may be further promoted in order to foster innovation and creativity at all levels of education.

Inclusiveness

While Malaysia has shown a relatively small degree of disparity in its education system, analysis across the policy domains has demonstrated that inclusiveness was still a systemic issue and an area worthy of additional attention. In particular, the review revealed that some aspects of Malaysia's assessment, curriculum and TVET policies were hindering, rather than promoting, equitable educational opportunity. The early and systemic use of tracking at a young age is a particular example of this, yet it is also apparent in terms of education policy with respect to diversity and the incentives for the education system to actively promote inclusion. Reorienting the education system away from solely focusing on student performance and toward one which promotes the rights of all children to benefit from access to a high-quality education will derive benefits far beyond individual educational gains by assisting in achieving wider social and economic objectives of inclusive growth and the knowledge society. It was found that there is a room for more participatory policy making with representatives of all stakeholders, including minority groups, disadvantaged groups and non-state actors and review of the existing incentive schemes to reflect needs of disadvantaged schools and students.

Coordination

Coordination within and between the different Ministers that are involved in education, as well as collaboration between public and private sectors, was identified as one of the cross-cutting issues. This circumstance is visible both across and within Ministries, and appears to be affecting the integrity and effectiveness of policy design as well as implementation. The effects of insufficient coordination are particularly strong in terms of curriculum and TVET, where the absence of sound consultation and the simultaneous work of multiple bureaucracies appear to have resulted in some degree of inconsistent policy-making and, in certain cases, duplication. A particularly clear example is Malaysia's many data management systems. Evidence suggests that rather than a synchronized EMIS, different sets of data are collected on a more ad hoc basis by multiple agencies and departments, often with overlaps and duplication in requests. As front-line education personnel are often involved in this process, the lack of coordination results in diverting efforts away from classrooms, burdensome reporting and potential inefficiencies. While efforts have been made to improve the situation, the impacts of these initiatives are yet to be seen. Introduction of the outcome-based-budget (OBB) can be considered an excellent opportunity if introduced appropriately, but it will require further capacity building at all levels.

Capacity

The review also found a significant gap between policy intent and implementation. This suggests that despite well-articulated plans, there is insufficient capacity at all levels for implementation. For instance, the Government of Malaysia is promoting innovation and creativity in policy implementations at the State level, but it is not clear that all States have capacities to do so. Together with issues identified above regarding a heavily centralized, but not always well-coordinated administration, the capacity gap may be compromising the ability of Malaysia to realize its educational goals. In this area, analysis has revealed that there is room for improvement across all domains in terms of the use of evidence in policy-making by enhancing policy research capacity outside the education ministries. The review team formulated recommendations on the role that a more systematic capacity development programme can play in enhancing the chances of policy

success in implementation, and a need to develop a comprehensive evaluation framework for education personnel (teachers, principals, and administrators) that clearly rewards creativity, innovation and leadership.

What lessons can be learnt?

Malaysia: progress and challenges ahead

When compared to many countries in the Asia-Pacific region, Malaysia showcases a remarkable commitment to improving its national education system. What was once a diverse and fragmented system has developed into a well-integrated national system since its federation in 1957. To meet evolving national aspirations and global demands, the Government of Malaysia must continue to design comprehensive educational plans and reform measures which translate into effective investment and outcomes.

Malaysia has achieved remarkable progress in improving access, equity and quality of its national education system. Malaysia is not only on track to achieve the Millennium Development Goal of Universal Primary Education by 2015, it will also be close to universal schooling in lower secondary education. Furthermore, Malaysia has already achieved gender parity at the primary level while dropout rates have improved significantly over the last 40 years in all states and regions. Malaysian students receive a higher than average number of instruction hours and there is continued investment to improve the quality of teaching and teacher training throughout Malaysia. Likewise, the vast majority of students are achieving at least minimum competencies as identified by national assessments.

Despite these achievements and strengths, challenges remain. It should be noted, for example, that even with near universal primary education, an estimated 120,000 are still not in school in Malaysia (UNCT Malaysia, 2011). While dropout rates have improved, students from poorer families are much more likely to drop out of school and at the secondary level, the rates are significantly higher for rural schools than urban schools. In contradiction to strong performance in national assessments, Malaysia has not performed strongly at the international level with recent decline in TIMSS and weak performance in PISA. Malaysia is indeed challenged to improve both effectiveness and efficiency of education. In particular, given Malaysia's ambition to become a developed nation by 2020, the country is challenged to improve further still the quality of the education it provides.

As the Malaysian Education Policy Review has served to illustrate, these issues do not stand in isolation. Indeed, a number of cross-cutting issues impede greater efficiency and effectiveness of the education system and consequently hinder further improvements to access, equity and quality of education in Malaysia. While centralised authority is common amongst most education systems, analysis of the five domains suggests that the concentration of authority in the Malaysian MOE has a particularly strong influence on sector performance. Concentration of authority emerged in respect not only of decision-making power but also consultation and the opportunities provided at lower levels to adapt and innovate in education delivery. The broad range of roles and responsibilities assumed by the MOE has also had implications on the size of central administration, which is large by international comparison.

The reviews also found that there exists a significant gap between policy intent and implementation. This suggests that despite well-intentioned plans, there may be insufficient capacity at all levels for implementation. Together with issues identified above regarding a heavily centralised, but not always well-coordinated administration, this capacity gap may be compromising the ability of Malaysia to realise its educational goals. In particular, analysis has revealed that there is room for improvement across all domains in terms of use of evidence in policy-making, the role that training can play in enhancing the chances of policy success in implementation, and in ensuring that Malaysia's education system provides incentives at lower levels for innovation and leadership.

Analysis across the domains has also demonstrated that inclusiveness remains a systemic issue, and an area worthy of additional attention. In particular, the review revealed that aspects of Malaysia's assessment, curriculum and TVET policies may be hindering, rather than promoting, equitable educational opportunity. The early and systemic use of tracking at a young age is an especially strong example of this, yet it is also apparent in terms of education with respect to diversity and the incentives for the education system to actively promote inclusion. Reorienting the education system away from fixed vocational outcomes and toward one which promotes the rights of all children to benefit from access to a high-quality education will derive benefits outside of individual educational gains by assisting in achieving wider social and economic objectives of inclusive growth.

It was also found that coordination within Ministries and between the different Ministries involved in education could also be strengthened. This appears to be affecting the integrity and effectiveness of policy design as well as implementation. The effects of this lack of coordination is particularly strong in terms of curriculum and TVET, where the absence of sound consultation and the simultaneous work of multiple bureaucracies may have resulted in some incoherent policy-making and, in certain cases, duplication. A particularly clear example of the impact a lack of coordination can have on education performance emerged when considering Malaysia's data management systems. Evidence suggests that rather than a synchronised EMIS, different sets of data are collected on a somewhat an ad hoc basis by multiple agencies, oftentimes with overlaps and duplication in requests. As front-line education personnel are often involved in this process, the lack of coordination results in drawing efforts away from classrooms, burdensome reporting and potential inefficiencies.

In support of Malaysia's vision for education and the national agenda of achieving developed nation status by 2020, these cross-cutting issues can perhaps provide important clues as to how holistic revision of Malaysian education policies may drive Malaysia forward in achieving its national goals. In particular, it provides direction for how the domain specific issues may be addressed by the MOE from a more sector-wide perspective. Given the unflagging commitment of the Government of Malaysia to improving education, given the achievements already made and given the significant investment to education that is unique to Malaysia, there is no question that these challenges are surmountable. There is also no question that Malaysia will continue to provide an exemplary model of development to its regional neighbours and that it will provide the necessary drive for improving education not just on a domestic front, but within the broader Asia-Pacific region.

The Malaysian experience - what can other countries learn?

The Malaysian experience provides opportunity to identify a number of challenges common across different educational systems throughout the world. The Malaysian Policy Review provides insight from a unique angle and allows opportunity to discuss possible implications, as demonstrated below.

The importance of investing in teachers at every stage

The M-EPR shows how important it is for a country to have top quality and proficient teaching professionals. Not only do teachers' qualifications have an impact on the quality of instruction and consequently on students' performance, a high qualification level – most often related to a selective recruitment process – can help to attract high achievers to join the teaching profession. Their creativity, willingness to innovate and commitment will benefit the educational system as a whole. Furthermore, it is in the interest of Ministries of Education to invest in teachers in the long term through effective and efficient in-service training programmes to fill the gaps in teachers' knowledge and skills, and enhance their capacity to be innovative and creative. Likewise, it is important to recognize the mission of teachers by creating a professional environment in which they can concentrate on their duties: reducing their administrative tasks is a key prerogative. Finally, when it comes to ensuring the quality of instruction and to optimize teachers' talents, the M-EPR has shown how critical it is to encourage leadership among teachers and to provide professional autonomy in

which they can optimize instruction measures based on student-centred approaches. Indeed, in the 21st century, teachers' development must be based on an educational model in which teachers more than mere transmitters of information, are able to adapt to individual needs with adequate instruction methods.

Guarantee the efficient development and implementation of a curriculum

The curriculum is the core of an education system as it outlines what and how a country wants its students to learn in view of national objectives. As the core of an education system, the Malaysian experience has identified challenges related to the development of this curriculum that many other education systems also face. One of these is the issue of balance between centralized control and local responsibility and autonomy of the curriculum for the purpose of achieving a curricular structure that contains standardized policy expectations while meeting the needs of local contexts. To minimise the mismatch between policy intentions of the planned curriculum and its implementation, educational systems must provide a comprehensive management and implementation plan which is closely monitored and assessed. This is especially crucial when changes in the curriculum are introduced to adapt to new needs, as this would help guarantee that teachers actually understand the implications of new concepts in the curriculum and how this impacts classroom practice. Another challenge related to curriculum development seems to be the coordination between the various divisions within a Ministry of Education, and the importance of a shared vision, clear roles and areas responsibility, as well as efficient systems in order to successfully implement a curriculum. Also critical to effective and sustainable improvements in curriculum outcomes, a decentralized strategy is needed to develop leadership capacities at all levels of the system to implement and evaluate the achievements at each stage of the curriculum cycle. This decentralization provides teachers with leadership and autonomy to adapt the curriculum with a certain degree of flexibility. At the same time, it encourages innovative curriculum practices that meet the needs of individuals while also promoting accountability in teachers. To further support the implementation of the curriculum, teachers need to understand the use of classroom and school-based assessment to maximize learning for their students. This would shift the focus away from narrowly preparing students for examination success. In general, overcrowded curricula have a negative impact on quality, and so due consideration must be given to the amount of content put into a curriculum. Finally, another interesting lesson especially for multilingual countries, is the choice in the language of instruction that allows children to learn effectively, while it has been shown that students learn more effectively in their mother tongue as an introduction to and complement of multilingual education.

Assessment and examination systems without distortive effects

The M-EPR also stresses the importance of organizing an assessment system efficiently, as it is this system which is supposed to determine whether the outcomes of an educational system are fit for the purposes of the system's end users. In particular, countries in which assessment systems play an important role in transition to further education and work can examine the Malaysian experience in order to observe how assessment can impact on education decision-making by individuals and their families and employers as users of the system. Concretely, it appears that centralized assessment systems with very high-stake examinations have a risk of producing distortive effects, as such examinations can lead to a test-oriented mode of instruction, and in consequence, assessment instruments may be designed to test for only subject-matter content rather than transversal competencies – competencies which are highly valued by today's employers and society at large.

This explains why a cyclic programme of assessment which interrogates a select number of competencies alongside a broader baseline of testing across all other competencies identified in the curriculum seems generally more recommendable, especially as national economies often seek for a workforce with strong generic skills. Furthermore, the M-EPR also reveals that high-stake examinations should not be systematically applied to all students in view of selecting the top

performing ones, but rather only at key transition points and only for those who are likely to be competitive for selection by application, rather than being administered comprehensively across all students. It is also important that high-stake examinations do not have an exclusive character, e.g. by systemically redirecting lower-performing students to technical and vocational tracks and thereby indirectly creating a pathway for “losers”. Reward systems in turn must avoid adopting a meritocratic system, leaving behind those who would actually need support. When it comes to assessment at primary level through psychometric examinations, these should only be used as prevention and support tool and be based on a clearly articulated framework. Finally, a balance between school-based assessment, adaptable to local conditions and encouraging of teacher empowerment on the one hand, and quality assurance through centralised control on the other, based on systematic alignment between aspirations, assessment policy objectives, design and implementation, is recommendable. In countries such as Malaysia which have only recently begun implementing school-based assessment, it is crucial to invest in building the capacity of both those who design the assessment instruments as well as teachers and school leaders, while it is equally important to nurture communication with stakeholders such as teachers and parents so that they understand the rationale and benefits of such assessment reforms.

An active role for ICTs in education

Regarding the role and use of ICTs in education, the Malaysian experience, one of the “early starters” in this area, can provide important lessons. First, it appears that educational systems with a long term strategy and progressive targets in key policy implementation areas play a key role in moving forward to an ICT-enabled knowledge society. Such strategies ensure that their schools are provided with updated ICT infrastructure and their teachers are trained to use ICTs not only as an instructional tool but also to foster student creativity, problem-solving, critical thinking and communication skills. Secondly, from an organizational point of view, it seems to be in the interest of educational systems to position ICTs as an essential enabling factor for all education reform initiatives and to consider them as just as important as curriculum or assessment reforms. Given the huge potential and impact that ICTs can offer to shift the century-old paradigm in pedagogy and assessment, disconnection between curriculum and ICTs must be avoided. Moreover, the M-EPR reveals the importance of motivating and facilitating schools and teachers to undertake ICT-enhanced pedagogical and assessment innovations. This comes automatically along with the need to establish monitoring, feedback and supportive mechanisms to help teachers and schools to meet strategic targets indicated in the policy and action plans. Finally, the M-EPR shows also the benefits of devising a discursive channel that can encourage dialogues between policy makers and ground-level implementers, including teachers, students, parents, community and private enterprises. Without such mechanisms, efforts to integrate ICTs in education and opportunities to exploit its potential can be jeopardized.

Technical and vocational training without social discrimination

M-EPR has also revealed that early tracking students into vocational streams can lead to social selection and poorer outcomes for basic literacy and numeracy skills, especially when students within these early vocational tracks receive a simplified version of the basis curriculum. It appears generally preferable to introduce TVET only at the Upper Secondary Level or after a common pathway with all students, in order to guarantee that all qualifications reflect strong foundational competencies. Assessment at the early stage should not automatically lead to streaming weak students into TVET, especially considering those early low-achieving students tend to be part of lower socio-economic status families. Regarding the context of TVET, the Malaysian experience shows that policy inputs are recommended to expand the supply of career information and counselling services to students in Lower Secondary Education and that a comprehensive approach to careers counselling needs to be prepared for all students starting at primary level to higher levels. In general, educational systems must ensure that student and career counsellors are aware of the range of possibilities related to TVET. A closer cooperation with employers is directly related to the

efficiency and effectiveness of TVET, as the demand from the labour market for students from vocational colleges is decisive. The systematic approach to cooperation through increased decision-making authority for employers, government subsidies and student fees may encourage private providers to enter the VC market. Furthermore, in countries with different providers to vocational certificates, there is a clear importance of guaranteeing the equivalence between the different programs offered by different providers based on common standards. Finally, in order to avoid further discrimination an educational systems must guarantee a system that measures accurately the eligibility of students to access financial support, establishing efficient allowance instruments that support students without encouraging them to stay in training programmes instead of entering the labour market after training.



Technical Annex

A UNESCO education policy review: What it is and what it entails for a country

Overall aim of the UNESCO education policy reviews

The overall aim of the UNESCO policy reviews is to help education authorities in Member States to strengthen their education system while contributing to capacity development. Accordingly, upon demand of a Member State, a policy review is designed to:

- a) **provide an overall assessment of the education system**, focusing particularly on quality and equity, and the way overall development policies, regulations, structures and education-specific policies and practices could be reformed to improve education in the country;
- b) **focus on policies that address the most pressing issues in response to the demands of the Member State**, which may include governance, teacher policies, school leadership, social participation, the transition to the world of work, multicultural education, student outcomes, and equity. UNESCO may accommodate a wide range of other specific demands in the wider context of education policies and practices;
- c) **provide a comparative analysis** of the key policy levers used in comparable countries so as to help national authorities learn from the experience of others and assess critically their applicability;
- d) **build capacity of and accompany national institutions** through the process of analyzing the strengths and the shortcomings of the education system and seize opportunities for effective change or reform;
- e) **outline, in cooperation with the national authorities, specific actions** to help address the needs and challenges of the Member State in particular areas of education policy, planning and management with support from UNESCO; and
- f) **identify opportunities for support** from development partners in view of implementing the suggested actions.

Contents of the policy review

The policy review report follows a logical sequence of problem analysis to facilitate discussion of policy issues, findings and related options for improvement. In essence, each section can contain as many policy issues as necessary, each of them developed as follows:

1. **Statement of a key policy issue:** what is the major policy issue at stake? For example: *The strong centralization of the educational administration has a negative impact on the innovative capacities of the whole school system, and is particularly worrisome in TVET.*
2. **Evidence of the issue:** what evidence underlies this statement? Supporting evidence can be found in the existing documents and research studies or as a result of meetings and interviews with government officials and other stakeholders. For example: *A recent comparative study carried out by UNESCO*

and the World Bank shows that country x ranks among the most centralized systems in the region, particularly in school education and TVET. In addition, interviews with government officials and other stakeholders served to confirm this

3. **Discussion:** the importance of the finding and its relevance to policy. For example: *Decentralization is highly controversial and cannot be taken as necessarily positive in all contexts. Rather, it may lead to an empowering process at local and school level as well as to an important decrease in equity and accountability. Although many voices in the system of country x openly advocate for decentralization, the national authorities should always consider both the benefits and the risks of taking this course of action. In the current circumstances, there seems to be more to gain in an incremental process of decentralization than in either drastic measures at reform or in keeping the current status quo unchanged.*
4. **Policy recommendations:**. The presentation of the policy recommendations is made according to the following guidelines:
 - a. Each recommendation is phrased in one sentence: clear and sharp.
 - b. A text connecting the policy recommendation with the evidence and the discussion presents the rationale for such a recommendation. As much as possible international comparative evidence is brought into the picture to support how other countries have been tackling the issue.
 - c. Whenever possible, the likely implications of the recommendation, if implemented (what would happen if...) and if not implemented, are suggested.
 - d. In addition, each policy recommendation includes succinct indications and expert advice about:
 - i. The priority assigned to the recommendation (high, medium, low in comparison to the rest of recommendations suggested).
 - ii. The level of difficulty for successful implementation (high, medium, low)
 - iii. The level of cost (high, medium, low or no financial costs).
 - iv. The indicative time horizon for implementation (long, medium or short-term)

Methodological approach

The UNESCO policy review combines different sources of information:

1. a **country background report**, prepared by the national team (to be appointed by the national authorities) in accordance with UNESCO policy analysis guidelines (e.g.

based on the UNESCO National Education Support Strategy, UNESS⁶), which is intended to provide baseline factual and descriptive information; this background report should build empirical evidence about quality and equity in education in the Member State and incorporate, in addition, the views of the national experts;

2. a UNESCO **benchmarking factsheet**, which provides basic information about how the country's education system is performing in comparison to other countries;
3. a UNESCO **literature review** of recent works on education policy in the country
4. a series of **three missions**: (1) scoping; 2) fact-finding and interpretation, and; 3) validation. These missions involve co-operation between a national team and an international team. The international team will be composed of UNESCO staff plus international experts in the policy domains that are considered critical for the improvement of the education system.
5. A **final report**, which includes policy recommendations as well as specific actions for support, if required, is the main outcome of the policy review.

Indicative guiding questions

The following list includes some possible guiding questions for a review, divided into five different domains:

1. Planning and management
2. Quality of schooling
3. Equity of educational opportunities
4. School and society

1. Planning and management

This item will examine and analyse the following areas:

- (i) Institutional arrangements for planning and management and tools used;
- (ii) legal arrangements and how they apportion responsibility, resources and accountability between national, regional and school levels;
- (iii) participation of stakeholders at the system and school levels (civil society organization, industry, parents and students);
- (iv) arrangements for developing school leadership and management training;
- (v) the role of public and private sector financing;
- (vi) arrangements for efficiency in the use of resources;
- (vii) system-wide introduction of innovation including ICT and other infrastructure development; and
- (viii) knowledge base development both for the system level and the school level.

⁶ UNESS is used primarily as a method of analysis of national education policies and challenges as well as for planning UNESCO's Education sector programmes and interventions.

2. Quality of schooling

Issues to be covered include:

- (i) Input measures and outcomes measures including the issue of quality in terms of relevance to student needs and achieving the intended impact on broader societal measures of schooling;
- (ii) Teaching resources: arrangements for recruitment, development (pre-service and in-service professional development), staff retention policies, and career progression arrangements, including teacher assessment and reward systems;; teaching arrangements for the introduction of new technologies;
- (iii) Teaching and learning processes including curriculum development with special reference to sciences and mathematics, “soft” and cross-curricular skills, and innovations in relation to broad educational goals;
- (iv) Pedagogical approaches, including the use of student centered approaches, class-room sizes and use of joint teaching and teacher assistants;
- (v) Arrangements for school-based assessment and its link to central level examination, including the role of formative and summative assessments and arrangements for grade mobility;
- (vi) Availability, use and integration of new technologies (ICT), including material preparation, teacher training, tutor training;
- (vii) Learning environment, including facilities, materials and class sizes.

3. Equity of educational opportunities

Issues to be examined in this area include:

- (i) Access by specific demographic (including gender issues), social economic, and regional (including rural issues) and language groups;
- (ii) Mechanisms put in place to overcome inequalities in access and participation (including social protection measures;
- (iii) Measures established to promote inclusion.

4. School and society

Major issues to be examined include:

- (i) How is transition of students from pre-primary to primary is handled;
- (ii) How are transitions to the labour market facilitated and organized;
- (iii) Institutional arrangements for entry into the labour market, company visits, such as internships, work placement, and dual forms of training; availability of career guidance service and how the service is organized;

- (iv) Exposure of students to learning opportunities and requirements for learning at a higher level; arrangements in the qualifications framework for multiple and overlapping access to different learning pathways;
- (v) Arrangements for credit recognition in different levels of vocational and academic learning.

Indicative structure of the final report

The structure of the report will follow the issues areas as described above but will be preceded by a description of the context and the review perspective used by the panel of experts. In addition it will collect the recommendations in a concluding chapter. There will be an Executive Summary at front.

EXECUTIVE SUMMARY

I. Approach of the review

- a. Country's vision and ambitions for its school sector
- b. The evaluation approach adopted for the review

II. The context

- c. Historical evolution of the wider society's demographic, economic and political development
- d. Labour markets features and trends and skills needs
- e. Historical evolutions and main features of the whole education sector
- f. International context, especially the situation and trends in comparable economies and societies.

Each of the following substantive chapters will be done in two parts: A: Current situations and problems; and B: recommendations (which will take account of good practice at the internal level);

III. Planning and Management

Part A: Analysis of the current situation:

- a. Planning and management capability
- b. Capacity for innovation in the system, such as for introducing and integrating ICT in a system-wide basis
- c. Arrangements for sharing of responsibility and resources, central and decentralization arrangements
- d. Capacity for developing school leadership;
- e. Financing
- f. The role of public and private sector

- g. Knowledge and information base for system governance and school management
- h. Increasing the efficiency and effectiveness in planning and administration in education ministries, schools and classrooms.

Part B: Recommendations

IV. Quality

Part A: Analysis of all the issues mentioned above, including:

- a. Teaching resources
 - i) Policies relating to pre-service teacher(education in terms of length and structure of programmes, in-take requirements, teacher education curricula, capacity of teacher education institutions, and linkages between school curriculum and assessment reforms with teacher training.
 - ii) Organization of the training of teachers by teacher training colleges and universities;
 - iii. Analysis of in-service training sponsored by the government; and
 - iv. Building the competencies of teachers in using ICT effectively in their daily practices.
- b. Teaching and learning processes
 - i. Curriculum, with special attention to
 - Math and sciences
 - The introduction of “soft skills”
 - Articulation to higher education and
 - Curriculum innovations in relation to broad educational goals
 - ii. Pedagogical approaches, including languages of instruction
 - iii. School-based assessment and examination
 - iv. ICT, including policies relating to
 - building national capacities to develop appropriate polices and plans for the integration of ICT into education;
 - developing and delivering content using ICT;
 - v. Learning environment

Part B: Recommendations

V. Equity

Part A: Current situation and problems:

- a. Access and participation by different groups and areas
- b. Equity of access and equity of outcomes
- c. Inclusion

Part B: Recommendations

VI. School and society

Part A: Analysis of the issues and problems, including:

- a. From pre-primary to primary
- b. Transition to the labour market
 - i. Academic and vocational streams
 - ii. Institutional arrangements for entry into the labour market
 - iii. Career guidance
 - iv. Mobility market

Indicative milestones

Given a particular Starting Date (SD), the following could be applied:

Activity	Timing (in weeks)
First (scoping) mission	SD
Guidelines for the country background report released by UNESCO	+ 2
Benchmarking factsheet by UNESCO	+ 4
Literature review by UNESCO	+ 6
Country background report by national team	+ 6
Second (fact-finding and interpretation) mission	+ 10
First draft of the final report	+ 14
Third (validation) mission	+ 16
Final report released	+ 19

All in all, the process is expected to last for about 19 weeks, i.e. 4-5 months.



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