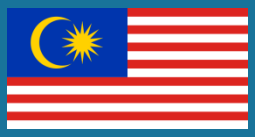
Malaysia



WORKFORCE DEVELOPMENT

SABER Country Report
2013

Dimensions		Status
1. Strategic Framework		
Strategic framework is assessed at the "established" level in 2010, which implies sustained advocacy for workforce development (WfD) to support economic development. This status reflects that Malaysian leaders have been able to articulate a strategic vision for WfD and foster a demand-driven approach. However, they are less able to coordinate the roles played by and the activities of multiple public agencies engaged in WfD, not to mention the growing private sector presence over the decade.	2010	Established
	2000	Established
2. System Oversight		
System oversight is assessed as "established" in 2010. This reflects that Malaysia has done well to ensure relevant and reliable standards that are harmonized nationwide and considerable diversification of learning pathways has occurred during the decade. Considerable scope for improvement remains for ensuring efficiency and equity of funding, and greater focus on output rather than input indicators should bring this about.	2010	Established
	2000	Emerging
3. Service Delivery		
Service delivery is assessed at the lower end of the "established" level in 2010. Increased involvement of private training providers has fostered greater diversity in training provision and closer ties between training providers and industry have led to greater relevance in public training programs over the decade. A significant increase in the amount and accessibility of administrative and survey data have been offset somewhat by inadequate use of the data for monitoring performance.	2010	Established
	2000	Emerging

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Executive Summary

Malaysia's technical and vocational training (TVET)[1] program is born out of a combination of ambition and necessity. The country has recorded impressive economic growth over several decades, bolstering ambitions that it should make the transition from middle- to high-income by transforming to a "knowledge (K)" economy. Vision 2020, announced by then Prime Minister Mahathir Mohamad, was to give substance to this plan. The need to make this transformation was driven home by a deceleration of this growth after the Asian Financial Crisis at the turn of the century followed by the Global Financial Crisis a decade later and has galvanized the country's leaders to action to bolster its human capital. TVET can play an important role in Malaysia's transformation to a knowledge economy.

Action has been translated into sustained advocacy for workforce development (WfD) by leadership at various levels. Within the World Bank's SABER-WfD framework, designed to benchmark a country's TVET system, Malaysia has achieved an **Established** level, with a score of 3.1 out of a possible 4.0 in 2010. This status reflects the fact that Malaysian leaders have been able to articulate a strategic vision for WfD (3.5) and to foster a demand-driven approach (3.0), although less able to coordinate the roles played by and the activities of multiple public agencies engaged in WfD, not to mention the growing private sector presence over the decade (2.7). The scores for the first and third policy goals in this dimension reflect improvements over the scores for 2000.

With respect to another dimension of TVET system performance, system oversight, Malaysia does less well, indicating that policy formulation is not matched by implementation. Data collected under SABER-WfD reveal Malaysia receives an overall rating of 2.9, placing it at the **Established** level in this area in 2010. While the country performs well in assuring relevant and reliable standards and diversifying pathways for skills acquisition, it has been let down by inattention to ensuring efficiency and equity of funding (score of only 2.3). This Policy Goal's poor performance is underlined by the fact that the 2010 performance was already an improvement over the decade – the 2000 score was only 1.6.

For the other dimension of implementation, service delivery, Malaysia performed about as well as system oversight, receiving an overall rating of 2.7 (a score that falls at the lower end of the **Established** level) in 2010. This represents the average of scores for the three Policy Goals of enabling diversity and excellence in training provision (2.5), fostering relevance in public training programs (2.8); and enhancing evidence-based accountability for results (2.9).

The details from this assessment yield a number of lessons to be learned and out of which policy recommendations are made. In particular, Malaysia has a WfD system that combines both strengths and challenges. The most obvious strength has been broad, sometimes significant, improvement across all three dimensions of strategic framework, system oversight and service delivery. While there are lessons to be learned by other countries from Malaysia's successes, Malaysia itself should learn from the challenges it continues to face. Foremost among these is the fact that policy formulation and announcements have not been supported by commensurate attention to implementation and monitoring of programs. A second is the public-sector focus of WfD programs which affords limited roles for non-government stakeholders, especially in active labor market programs, with only attempts to engineer public-private partnerships, although this is changing for the better. A third challenge is the role played by multiple public agencies in TVET with little institutional coordination. Even within each agency, institutional memory is often found wanting.

These lessons point to clear areas of policy development focus to improve the country's WfD system. First is the need to give much greater emphasis to implementation and oversight. This means walking the talk to ensure that what policies intend are actually carried out on the ground. Second, training provision should embrace the contribution of private providers. These have emerged to fill the gaps that public sector provision cannot fulfill, and competes with public sector

[1] See Annex 1 for a list of acronyms.

providers to promote efficiency in service delivery. Third, closer collaboration with industry, while essential, should be framed by clear national goals. This is to prevent state capture by vested interests. Fourth, institutional coordination remains a high priority given the large number of public agencies involved in TVET provision, and likely an equally large number of non-state providers. Effective coordination is needed for efficiency in public spending with the already large and rising public debt burden. Finally, greater transparency of public sector agencies' TVET plans and performance will help the public learn about their achievements and empathize with the challenges they face.

1. Introduction

Malaysia has embarked on an ambitious plan to transform the economy with the aim of becoming a developed country by the year 2020. This ambitious agenda is set against a country context that has seen both favorable developments and challenges. On the positive side, years of rapid economic growth have propelled Malaysia to the status of an upper middle-income nation using World Bank definitions. However, two financial crises in two decades have dented this growth. More daunting is the fact that the country's education system has seen its quality decline relative to international benchmarks. The country's technical and vocational education and training (TVET) system can play a crucial role in its transformation to a knowledge economy.[2]

A New Diagnostic Tool

To inform policy dialogue on these important issues, this report presents a comprehensive diagnostic of the country's WfD policies, institutions and practices. The results are based on a new World Bank tool designed for this purpose. Known as SABER-WfD, the tool is part of the World Bank's initiative on Systems Approach for Better Education Results (SABER)[3] whose aim is to provide systematic documentation and assessment of the policy and institutional factors that influence the performance of education and training systems. The SABER-WfD tool encompasses initial, continuing and targeted vocational education and training that are offered through multiple channels, and focuses largely on programs at the secondary and post-secondary levels.

The tool is based on an analytical framework[4] that identifies three functional dimensions of WfD policies and institutions:

(1) ***Strategic framework***, which refers to the praxis of advocacy, partnership, and coordination in relation to the objective of aligning WfD in critical areas to priorities for national development;

(2) ***System Oversight***, which refers to the arrangements governing funding, quality assurance and learning pathways that shape the incentives and information signals affecting the choices of individuals, employers, training providers and other stakeholders; and

(3) ***Service Delivery***, which refers to the diversity, organization and management of training provision, both state and non-state, that deliver results on the ground by enabling individuals to acquire market- and job-relevant skills.

Taken together, these three dimensions allow for systematic analysis of the functioning of a WfD system as a whole. The focus in the SABER-WfD framework is on the institutional structures and practices of public policy-making and what they reveal about capacity in the system to conceptualize, design, coordinate and implement policies in order to achieve results on the ground.

Each dimension is composed of three Policy Goals that correspond to important functional aspects of WfD systems (see Figure 1.1). Policy Goals are further broken down into discrete Policy Actions and Topics that reveal more details about the system.[5]

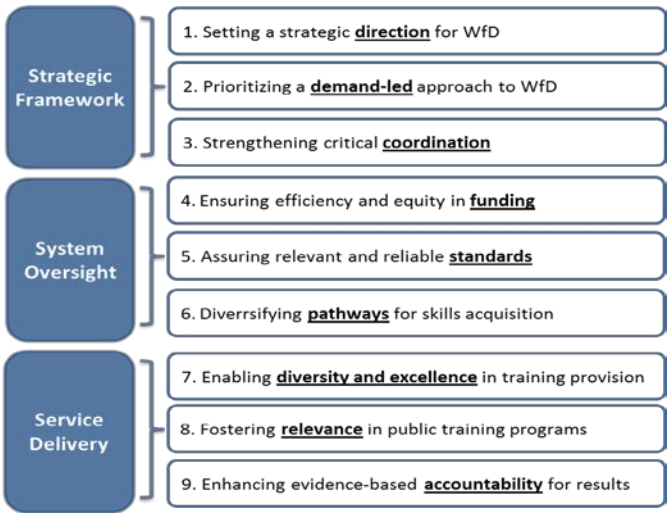
[2] Quality basic education is a necessary foundation for building TVET skills (ILO 2008a; Tan and Nam 2012; UNESCO 2012; World Bank 2011a).

[3] For details on SABER see http://siteresources.worldbank.org/EDUCATION/Resources/278200-1221666119663/saber.html.

[4] For an explanation of the SABER-WfD framework see Tan *et al*. 2013.

[5] See Annex 2 for an overview of the structure of the SABER-WfD framework.

Figure 1.1: Functional Dimensions and Policy Goals in the SABER-WfD Framework



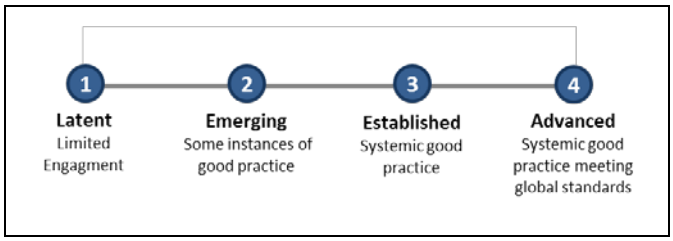
Source: Tan *et al*. 2013

Data Processing and Scoring

Information for the analysis is gathered using a structured SABER-WfD Data Collection Instrument (DCI). The instrument is designed to collect, to the extent possible, facts rather than opinions about WfD policies, institutions and practices. For each Topic, the DCI poses a set of multiple choice questions that are answered based on documentary evidence and interviews with knowledgeable informants. The answers allow each Topic to be scored on a four-point scale against standardized rubrics based on available knowledge on global good practice (See Figure 1.2).[6] Topic scores are averaged to produce Policy Goal scores, which are then aggregated into Dimension scores.[7] The results are finalized following validation by the relevant national counterparts, including the informants themselves.

The rest of this report summarizes the key findings of the SABER-WfD assessment and also presents the detailed results for each of the three functional dimensions. To put the results into context, the report begins below with a brief profile of the country's socioeconomic makeup.

Figure 1.2: SABER-WfD Scoring Rubrics



Source: Tan *et al*. 2013.

[6] See Annex 3 for the rubrics used to score the data. As in other countries, the data are gathered by a national principal investigator and his or her team, based on the sources indicated in Annex 4; and they are scored by the World Bank's SABER-WfD team. See Annex 5 for the detailed scores and Annex 6 for a list of those involved in data gathering, scoring and validation and in report writing.

[7] Since the composite scores are averages of the underlying scores, they are rarely whole numbers. For a given composite score, X, the conversion to the categorical rating shown on the cover is based on the following rule: $1.00 \leq X \leq 1.75$ converts to "Latent"; $1.75 < X \leq 2.50$, to "Emerging;" $2.50 < X \leq 3.25$, to "Established;" and $3.25 < X \leq 4.00$, to "Advanced".

2. Country Context

Since its independence in 1957, but especially in the last three decades of the 20th century, Malaysia's economy has performed extremely well.[8] Indeed, this performance has earned it membership into a group of economies that the World Bank in its report The East Asian Miracle (World Bank 1993) called High Performing Asian Economies. By the last decade of that century, however, the development model Malaysia employed, moving from primary production to manufacturing using low-cost labor, was beginning to fray. Despite redistributive policies based on extensive affirmative action, income inequality has increased; not all segments of the population have benefited, and development has come with increasing costs to the environment. These developments have major implications for the government, which, in 1991, launched its Vision 2020, with the objective of becoming an advanced country by 2020.[9]

The Asian Financial Crisis (AFC) that befell Malaysia is an economic watershed for the economy. Not only did the Crisis ravage the economy, with negative GDP growth of 7.4 percent in 1998, although rebounding to 6.1 percent in 1999, its aftermath has seen the country's growth moderate sharply. From year 2000 until 2008, Malaysia's GDP grew at just 5.5 percent, still respectable, but nowhere near the average 9.1 percent from 1990 to 1997 (Table 2.1). With other countries in the region experiencing equal or more rapid growth, the country's position as regional leader was also eroding. Private fixed investment failed to recover even as net foreign direct investment (FDI) leveled off with the rise of alternative FDI destinations like Indonesia and Vietnam. External factors like the burst of the tech bubble in the US during the turn of the century have not helped. (Lee and Tham 2009: 920-921). The onset of the Global Financial Crisis (GFC) that began in 2008 has dealt another blow to economic growth. As a result the economy recorded positive growth of just 4.8 percent in 2008 but a decline of 1.6 percent in 2009, although rebounding to 7.2 percent in 2010.

Table 2.1: GDP Growth Rates, Selected Countries 1990 - 2008 (%)

Country	GDP Growth Rate (%)			
	1990-1997	1998	1999	2000-2008
Malaysia	9.1	-7.4	6.1	5.5
Indonesia	6.1	-13.1	0.8	5.2
Philippines	3.2	-0.6	3.1	5.0
Thailand	5.5	-10.5	4.4	4.8
Vietnam	8.4	5.8	4.8	7.5

Sources: NEAC (2010), Fig. 5; World Bank database.

The deceleration in growth has raised concerns among the country's leadership that Malaysia may be in danger of falling into the "middle-income trap". This threat arises from the fact that Malaysia's low-cost labor model is under threat from countries like Cambodia, Indonesia and Vietnam which have even lower labor costs, while its move up the value chain is hampered by a technology capability that falls far short of that of countries like South Korea and even rapidly rising China.

The heart of the challenge of the "middle-income trap" is the country's inadequate labor supply. At the aggregate level, this is hard to see. Total numbers for labor force and employment show Malaysia's labor market has been in healthy balance over the last two decades, with unemployment rates of around 3 percent since 1990, even during the AFC and GFC (Table 2.2). Certainly, there was scant evidence of the extensive job losses reported in other countries ravaged by the AFC.[10]

[8] The Federation of Malaya gained independence in 1957, and the states of Sabah and Sarawak united with it to form Malaysia in 1963.

[9] Vision 2020 (*Wawasan 2020*) was announced by then Prime Minister Mahathir Mohammad during the tabling of the Sixth Malaysia Plan (Government of Malaysia 1991).

[10] The reason for this stability lies in the large pool of foreign labor. In bad times, as during the AFC of 1997-98, they have been the first to be retrenched. The World Bank's Malaysia Economic Monitor (2009: 29) also suggested temporary layoffs, work-spreading, and firms' tendency to lay off workers only as a last resort as other likely reasons why employment remained stable during the GFC.

Table 2.2: Malaysian Labor Market 1990 - 2010

Year	Labor Force ('000)	Employ-ment ('000)	Unemploy-ment Rate (%)
1990	7,000	6,685	4.5
1992	7,319	7.048	3.7
1996	8,614	8,399	2.5
1998	8,884	8,600	3.2
2000	9,556	9,269	3.0
2002	9,890	9,544	3.5
2004	10,342	9,980	3.5
2006	11,644	11,159	3.3
2008	11,967	11,577	3.3
2010	12,217	11,773	3.6

Sources: Government of Malaysia (2006, 2010)

Yet, this apparent stability masks major weaknesses. These weaknesses have both quantitative and qualitative dimensions. Quantitatively, Malaysia suffers from a shortage of labor, while qualitatively the skills of the country's labor force leave much to be desired. The labor shortage has multiple origins, one of which has been the high demand for labor resulting from years of rapid economic growth.[11]

Another is the continued reliance on and hence the predominance of labor-intensive industries. A third factor, much less referred to, is the low labor force participation of females. Despite enrolment rates in schools that are higher than those for males, a significant number of school-leavers do not enter the labor force. The overall female labor force participation rate in 2010 was estimated to be 46.5 percent, not substantially above the 44.8 percent in 2000 (Ministry of Finance, Malaysia 2004 and 2010).

Table 2.3: Total and Female Labor Force Participation Rates in ASEAN Countries, 1995 – 2008[a/]

Country	1995	2000	2005	2008
Brunei Darussalam	68.6 (52.4)	70.3 (57.8)	69.9 (60.0)	70.1 (61.2)
Cambodia	83.4 (80.6)	82.2 (78.9)	82.5 (77.8)	82.4 (77.2)
Indonesia	67.6 (51.3)	69.6 (52.3)	69.9 (52.0)	70.3 (51.8)
Lao PDR	84.7 (84.7)	83.9 (84.1)	82.4 (83.0)	81.9 (82.4)
Malaysia	64.4 (44.8)	65.2 (46.5)	65.2 (46.8)	65.5 (47.7)
Myanmar	79.5 (70.5)	79.5 (70.6)	79.2 (70.5)	79.5 (70.8)
Philippines	67.5 (50.5)	66.4 (49.9)	66.3 (51.1)	66.8 (51.5)
Singapore	69.0 (54.1)	71.1 (57.7)	71.5 (59.4)	71.2 (60.2)
Thailand	78.5 (70.4)	77.5 (70.5)	77.9 (71.1)	77.5 (70.0)
Vietnam	81.9 (79.4)	78.8 (75.9)	78.1 (75.0)	77.6 (74.3)

Source: ILO (2008b) Annex tables I.2.1 and I.2.3.

a/ Female labor force participation rates are in parentheses.

As Table 2.3 shows, low female labor force participation has produced a total labor force participation rate that is the lowest in the Association of South East Asian Nations (ASEAN).

[11] This was noted in as early as the Sixth Malaysia Plan, 1991-1995 (Government of Malaysia 1991: 131).

Table 2.4: Indicators of Dependence on Foreign Labor 2000 -2009

Year	Foreign Labor	
	All sectors ('000)	% of Total Employment
2000	807	8.7
2002	1,068	11.2
2004	1,470	14.7
2006[a/]	1,869	16.7
2008	2,063	17.8
2009	1,918	16.5

Growth of Foreign Workers Employed by Economic Sector

Year	Economic Sector	Growth Rate of Foreign Workers Employed
2000-2009	Domestic help	10.3
	Manufacturing	15.6
	Construction	19.8
	Services	18.7
	Agriculture	21.0
	Total	16.7

Sources: Government of Malaysia (2006, 2010).

a/Figures from 2006 onwards are from the Tenth Malaysia Plan (10MP) while those before 2006 are from the Ninth Malaysia Plan (9MP). The figure for 2006 from the 10MP was larger than the corresponding figure from the 9MP.

The labor shortfall has been made up by foreign contract labor. Table 2.4 shows the dependence of selected economic sectors on foreign labor. Between 2000 and 2009, the number of foreign workers employed in various sectors grew at nearly 17 percent a year, with growth in construction and (commercial) agriculture most rapid (Table 2.4). By 2006, foreign labor has come to account for a sixth of total employment. This does not include illegal immigrants, estimated to number as many as 2 million, some of whom must have found gainful employment, most likely in the informal sector.[12]

This heavy involvement of foreign labor has served Malaysia well, augmenting its labor supply to alleviate shortages arising from the country's rapid growth and from the removal of potential labor market entrants with the rapid expansion of upper secondary and tertiary education (Del Carpio *et al*, 2013, Hirschman, 2013). To the extent that their presence had permitted if not helped the country's economic growth, they also contributed to job creation for Malaysians. However, for the future, while continued reliance on foreign workers for low-skill work may have positive features, negative features are likely to dominate. On the positive side, foreign labor has been a safety valve that cushions the employment impact of crises. The most obvious negative is the dependence of key sectors like manufacturing and construction on foreign labor, with periodic warnings from industry about labor shortage as stark reminders of this vulnerability (see, for instance, Gooch 2011, Lim 2010). More damaging over the long term is the perpetuation of a low labor-cost model that impedes production upgrading through technology but still cannot compete with countries with low-cost labor. Worse, it breeds a mentality of reliance on this model and a lack of incentive to drive productivity growth, with negative consequences for the country's economic advance.[13] In the context of this study, there is also scant reason to invest in and undertake training of the workforce in high-skill work, thus compromising any effort to move the country towards a knowledge-based economy. Protests by employers against the government's minimum wage legislation are symptomatic of this entrenched mentality (see, for instance, Teoh 2012).

[12] There is no precise estimate of the total number of illegal immigrants, but 1.3 million were registered under an amnesty program (the "6P Program") (Bernama 2011). Illegal immigrants are mainly from Indonesia and the Philippines. Direct evidence of employment of these immigrants is hard to find – after all, employing an illegal can subject a Malaysian employer to fines – but indirect evidence exists in periodic press coverage of police raids that result in arrests of these illegals.

[13] The National Economic Advisory Council (NEAC) also blames underpricing of resources made possible by government policies as contributing to firms continuing to produce low value-added products (NEAC 2010: 5).

Table 2.5: Malaysian Labor Force's Skill Deficit

% of Labor Force with Tertiary Education, 2007		% of Workforce who are Skilled, 2008		% of Students Enrolled in Tertiary-level Technical Subjects,[a/] 2005	
Malaysia	23.4	Malaysia	28.0	Malaysia	14.0
Hong Kong	25.6	Hong Kong	36.0	Korea	33.0
Singapore	35.9	Singapore	51.0	Singapore	19.0
OECD Average	27.4	OECD Average	37.6	Taiwan	37.0

Source: Government of Malaysia (2010) Chart 5-1; UNCTAD (2005) Table A.V.1

a/ Refers to science, engineering, mathematics and computing.

Table 2.6: Malaysia's Performance in TIMSS and PISA Benchmarked against Selected Countries 1999 - 2011

	TIMSS[a/]				PISA 2009+	
	1999	2003	2007	2011	Score	Rank
Maths						
Malaysia	519	508	474	440	404	57
Korea	587	589	597	613	546	4
Taiwan	585	585	598	609	543	5
Science						
Malaysia	492	510	471	426	422	52
Korea	549	558	553	560	536	6
Taiwan	569	571	561	564	520	14

Sources: TIMSS, PISA

a/ For Grade 8 students

No less important than numbers is the deficient quality of the labor force. An overwhelming majority of foreign workers, legal or otherwise, have low skills and are employed in work and remunerated wages that Malaysians would not be willing to perform.[14] But they are just part of the quality challenge faced by the Malaysian workforce as a whole.

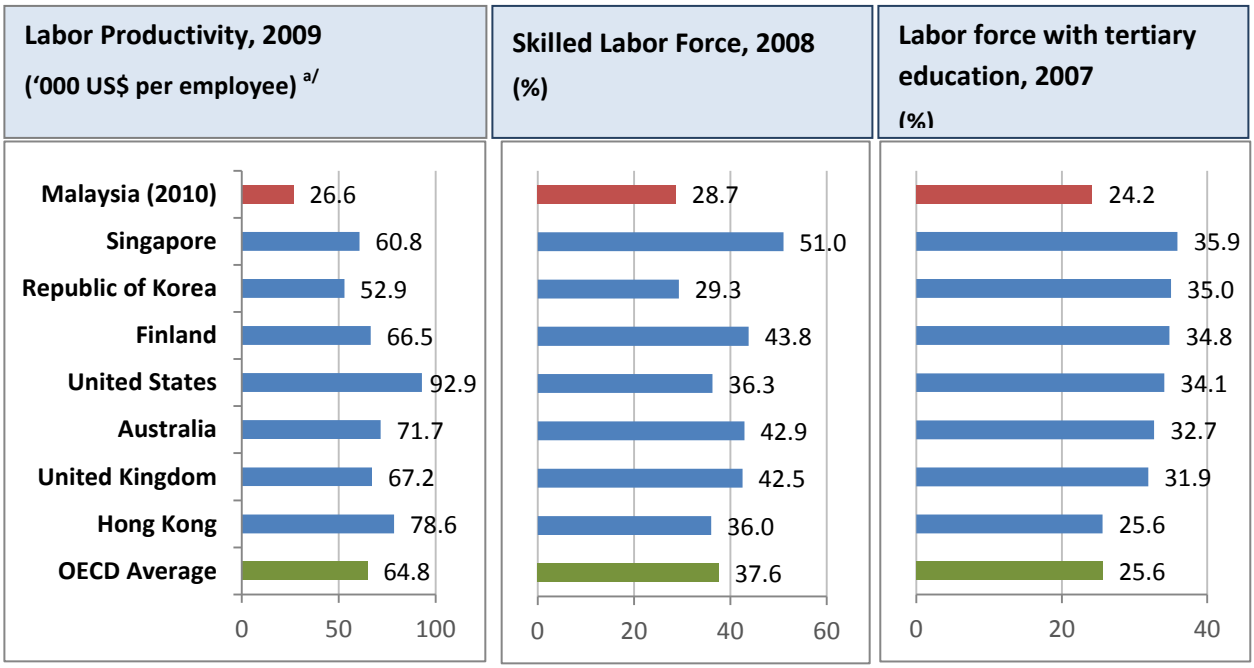
Less than a quarter of Malaysia's labor force has a tertiary education (Table 2.5) (see also Yilmaz 2010: 11). And those with tertiary education were reported to be not up to employers' expectations (Bernama 2012, Guvinder Kaur and Sharan Kaur 2008). Further, only a small fraction of students are enrolled in technical subjects (science, engineering, mathematics and computing), mastery over which is essential for the use of technology in production. It is no surprise, therefore, that under a third of Malaysia's labor force are considered to be skilled workers in 2008. These indicators compare unfavorably with those for the Newly Industrialized Economies (NIEs) and for advanced countries to which Malaysia aspires.

The skill shortage is compounded by a growing number of Malaysians leaving the country for greener pastures abroad.[15] From 1980 to 1990, the World Bank (2011b: 91) estimated that this outflow grew at 4.2 percent per annum, increasing by 50 percent the stock of Malaysian migrants overseas. Over the following decade this stock increased another 40 percent, averaging growth of 3.6 percent a year. This "brain drain" has been both location- and skill-selective. Singapore was the recipient of up

[14] Foo (2011: 101) estimated that of about 1.3 million foreign-born migrants living in Malaysia, nearly 600,000 are from Indonesia. Among these Indonesians, less than 1.5 percent are highly skilled.

[15] This has led the NEAC to lament: "We are not developing talent and what we have is leaving." (NEAC 2010: 6).

Figure 2.1: Malaysia's Human Capital Deficit Compared to High-Income Countries



Source: Ghebllawi, Goolamally and Ahmad (2011), ILO and national statistics.

a/ Adjusted to Purchasing Power Parity

to half these migrants, while over 60 percent were skilled.

Responsibility for the state of the labor force lies with the education and workforce training systems. The latter is the subject of this report. As for the education system, quality issues especially relating to the physical sciences are on display in the data provided by the Trends in International Mathematics and Science Study (TIMSS), conducted every four years.[16] Malaysia also participated for the first time in the OECD study Program for International Student Assessment (PISA) in 2009. Table 2.6 shows Malaysia's TIMSS scores for the three most recent studies and the country's rank among countries participating as well as the score and rank for PISA 2009+[17]

The assessment scores show first that in both mathematics and science Malaysia falls far behind the leaders, made up of the NIEs. Second, and more worrying, the absolute scores have declined over time, with mathematics and science scores materially lower in 2011 compared to 1999. This is despite the fact that improved student results for national examinations are reported every year.

The combination of the above factors has produced a human resource pool that is qualitatively far behind that of countries the level of development of which Malaysia hopes to achieve. Figure 2.1 shows that in the proportion of the workforce with tertiary

[16] TIMSS is an international assessment of mathematics and science achievement of students in the fourth and eighth grades (or their equivalents) in participating countries. It was developed by the International Association for the Evaluation of Educational Achievement. (www.oecd.org/pisa)

[17] The OECD's Program for International Student Assessment (PISA), "is an international study that was launched by the OECD in 1997. It aims to evaluate education systems worldwide every three years by assessing 15-year-olds' competencies in the key subjects: reading, mathematics and science" (www.oecd.org/pisa).

Box 2.1: Malaysia's Education Blueprint

Launched in September 2012, Malaysia's Education Blueprint 2013 to 2025 is intended provide a comprehensive framework to support "the rapid and sustainable transformation" of the country's education system to enable Malaysia "to compete with the best in the world. It identifies the challenges the current education faces, establishes a vision for the next decade, and proposes a comprehensive transformation program to realize this vision. This program is built around 11 major "shifts". These are to:

1. provide equal access to quality education of an international standard,
2. ensure every child is proficient in Malay and English,
3. develop value-driven Malaysians,
4. transform teaching into the profession of choice,
5. ensure high-performing school leaders in every school,
6. empower education agencies and schools to customize solutions based on need,
7. leverage ICT to scale up quality learning,
8. transform ministry delivery capabilities and capacity,
9. partner with parents, community and private sector,
10. maximize student outcome efficiency, and
11. increase transparency for direct public accountability.

Source: Government of Malaysia (2012)

education, the proportion of the skilled workforce in management, professional and high-skill occupations, and in labor productivity (purchasing power parity adjusted), Malaysia is well below the OECD average. This comparison is even more stark compared with the newly industrialized economies of South Korea and Singapore (all three dimensions) and Hong Kong (labor productivity).

Recognizing the unsatisfactory quality of the school system, the government has put out a preliminary Education Blueprint (Government of Malaysia 2012). This Blueprint details 11 "shifts" to transform the existing system (see Box 2.1). It recognizes multiple education pathways – technical, vocational, and religious – and outlined measures to support each.[18]

Box 2.2: Main Streams of Malaysia's Education (and Training) System

Stream	Institutions	Workforce Preparation
Academic education	Universities and other tertiary education institutions, both public and private	Managerial, professional occupations, including those requiring technology
Technical and vocational education	Polytechnics, technical institutes/colleges and community colleges	Supervisory occupations, including technical assistants and supervisors
Vocational skills training	Skills training institutions, both public and private	Skilled and semi-skilled occupations

Source: Pang (2010), Table 2.2.

Whether the initiatives implemented under this Blueprint will bring about the desired improvements remains to be seen, and in any case, lies beyond the scope of this report. But the responsibility for producing adequate human capital does not reside solely with academic education. Indeed, Malaysia's education system can be broadly categorized as consisting of three streams (Box 2.2). An effective TVET system made up of the second and third streams in Box 2.2 might have made a difference to workforce supply and quality.

As much as issues of substance and institutional setup, a major obstacle that must be overcome is attitudinal. Malaysian society accords a higher status to academic education than to vocational. This means effectively that students in the vocational streams are perceived as and tend to be those who cannot make the academic grade. The following chapters assess the strengths and weaknesses of this system, and suggest ways by which it can be strengthened.

[18] For a critique of the Blueprint, see, for instance, Bhattacharjee (2012).

3. Key Findings and Policy Implications

This chapter highlights findings from the assessment of Malaysia's WfD system based on the SABER-WfD analytical framework and tool. The focus is on policies, institutions and practices in three important functional dimensions of policymaking and implementation—strategic framework, system oversight and service delivery. Because these aspects collectively create the environment in which individuals, firms and training providers, both state and non-state, make decisions with regard to training, they exert an important influence on observed outcomes in skills development. Strong systems of WfD have institutionalized processes and practices for reaching agreement on priorities, for collaboration and coordination, and for generating routine feedback that sustain continuous innovation and improvement. By contrast, weak systems are characterized by fragmentation, duplication of effort and limited learning from experience.

The SABER-WfD assessment results summarized in Annex 5 provide a system diagnostic for understanding the current status of the WfD system in the country as well as a basis for discussing policy priorities for how best to strengthen it in the coming years.

Overview of the SABER-WfD Assessment Results

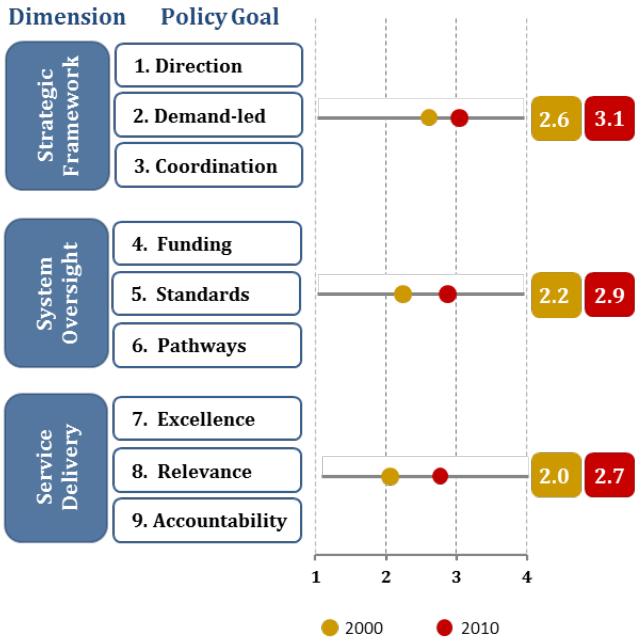
The SABER-WfD assessment results summarized below provide a baseline for understanding the current status of the WfD system in the country as well as a basis for discussing ideas on how best to strengthen it in the coming years.

Figure 3.1 shows the overall results for the three Functional Dimensions in the SABER-WfD framework. For Strategic Framework, Malaysia is rated at the **Established** level (score 3.1); for System Oversight, its score lies at the **Established** level (2.9); and for Service Delivery, the score is slightly lower but is also at the **Established** level (2.7).

The findings suggest that Malaysia has demonstrated considerable strength in formulating a strategic vision for WfD and policies and institutions to support that vision, but its capability is weaker at the oversight and implementation levels. Many of the gaps identified share common root causes, implying that addressing a selected gap may lead to progress on related fronts. The ease or even feasibility with which gaps can be addressed is a different matter altogether.

The above results may be explained by several factors. First, economic developments after the AFC, in particular the deceleration in economic growth and FDI, and the recognition that Malaysia has become dependent on low-cost foreign labor has alerted the country's leadership to the importance of strengthening the country's human capital to maintain her competitive advantage and to move the country beyond middle-income. Second, a highly centralized system of government despite being a federation, together with a ruling party with a solid majority in parliament has bestowed the central government with most of the power to make and implement policies. Hence commitment at the federal (central government) level is all that is needed for nationwide compliance and implementation. Finally, Malaysia has robust institutions that have the capability and experience to formulate policies. This is despite a growing bureaucracy in the form of the number of civil servants and departments that may be an ultimate challenge to the leadership in terms of efficiency and coordination.

Figure 3.1: Malaysia's Dimension Level Scores



That coordination is a challenge within this framework is borne out by the results of the survey. The survey covered 5 major ministries that provide TVET. Quite apart from institutional factors to be discussed later, 2010 saw the release in quick succession of major policy statements and initiatives – the New Economic Model, the Tenth Malaysia Plan, and the Economic and Government Transformation Programs (ETP and GTP),[19] each with a plethora of recommendations for moving the economy forward. Ensuring the consistency of these initiatives is the challenge at the **strategic level**.

In terms of **system oversight**, Malaysia scores well in terms of ensuring the application of its quality standards for its TVET programs, as well as offering an increasingly diversified set of pathways. Together, these ensure access to uniform quality TVET among a large segment of the population. However, although funding appears not to be a constraint, monitoring of cost effectiveness and targeting to ensure equity of access leave much to be desired. This lack of monitoring occurs in a system which is public sector-focused, hierarchical, and top-down. It is also bureaucratic, relying heavily on past funding rather than performance as late as 2000.

Malaysia scores nearly as well in service delivery (score 2.7 in 2010) as in system oversight, both of which fall short of that for articulating a strategic framework. This is still a creditable performance, considering that it is common for countries to have system oversight and service delivery fall considerably short of policy formulation. In addition to public provision of TVET, the country has seen the rise of a dynamic non-state (mainly private) sector of training service providers. Through the years, the government has not only come to recognize their role as training providers but also the need to regulate private for-profit providers to ensure minimum standards of quality for greater program relevance and performance accountability.

[19] For details of the ETP and GTP, see http://etp.pemandu.gov.my/.

Highlights and Lessons from Malaysia's Experience

What lessons can be learned and what implications can be drawn for policy from these results? The results above suggest a WfD system that combines both strengths and challenges. The most obvious strength has been broad, sometimes significant, improvement across all three dimensions of strategic framework, system oversight and service delivery. Thanks to ambitious goals set under Vision 2020 but also the reality of the AFC's aftermath and the further impact of the GFC, the leadership's prioritization of human resource development is reflected in announcements and policy documents during the period from 2000 to 2010.

This period also saw improvements in assessing skill requirements, as well as more rational recurrent funding of Continuing Vocational Education and Training (CVET) that reflect more attention to industry needs. Harmonization of standards has been achieved through the expanded coverage of the National Occupational Skills Standards (NOSS) (Figure 5.3 later) and the Malaysian Qualifications Agency (MQA) (Box 4.2 later) with the additional consequence that accreditation under them is the objective of training providers, both public and private. Hence, certification of skill standards under these systems now gives programs better acceptance than programs not accredited. The approach to evaluation of programs by public sector training providers has also progressed from being input-driven – how much was spent – to being output-driven – how many were trained. Finally, diversification of pathways and articulation criteria for training, including prior learning, has improved access to and options for WfD.

Together with adequate funding, these improvements have elevated public sector WfD programs from being a minor player in education and training with limited coverage to a major player with nationwide reach, and accessible through a widening set of learning pathways. Public provision has been augmented by rapid expansion of private provision.

At the same time, however, challenges with public provision still remain. Foremost among these is the

fact that policy formulation and announcements have not been supported by commensurate attention to implementation and monitoring of programs. Manifestations of these include the fact that despite the change in emphasis in program evaluation from input to output, impact assessments of training beneficiaries beyond employment are still largely absent. Nor was there any evidence that funding and other inputs were linked to targets to be achieved.

The evaluations are thus somewhat limited in their ability to speak to efficiency aspects of funding. And while allocations provide clues as to the equity aspects of funding, evidence of more explicit consideration of this criterion is lacking. And accountability was measured predominantly in terms of whether recurrent funds were spent while performance expectations were completely delinked from whether incentives were provided for performance.

The public-sector focus of WfD programs affords limited roles for non-government stakeholders, especially in active labor market programs, and only *ad hoc* attempts have been made to engineer public-private partnerships. More emphasis should thus be placed on providing incentives for Malaysia's increasingly prominent non-state providers and enabling opportunities for collaboration on a level playing field with public providers.

This picture of public sector focus has to be tempered by the recent incorporation of industry in the design of programs and in the granting of industrial attachments (Box 3.1). However, another important group of stakeholders – the workers – have found no voice in this process.[20] This industry bias has earned Malaysia the reputation of "business friendliness" rather than "market friendliness" (Hunter 2013). But the larger question of whether what industry wants should be what WfD should do (i.e. what the government wants) may be beyond the scope of this study.

Box 3.1: Industry Participation in TVET and the School System

While the National Dual Training System (Box 4.1) mandates extensive industry involvement, collaboration between the public and private sectors exists in other areas, and has received greater attention under the Tenth Malaysia Plan and Economic Transformation Program. Industry involvement in curriculum development and internships as well as the incentive for industry provision of training under the Human Resources Development Fund is detailed in this report. The government also provides training to industry instructors in public training institutes. In addition Zahri (2011: 6) cited examples of collaboration in TVET and the school system. These include government subsidies to tuition fees and financial assistance to private providers of early child care and education (ECCE), private management of "Trust Schools", government sponsorship of students in private colleges offering TVET, outsourcing TVET as well as teaching training in ECCE and pre-service training to private institutions, and subcontracting of school services like school meals and cleaning services to private contractors.

These collaborations notwithstanding, the public sector's engagement with industry remains superficial. The *ad hoc* nature of these collaborations poses challenges to any effort to integrate the private sector into an inclusive national training framework that reflects genuine public-private partnership.

Organizationally, Malaysia has multiple public agencies engaged in WfD with limited interagency coordination. The saving grace in this situation is the harmonization of standards referred to earlier. Institutional issues like reporting, the dissemination of data, and forms of assessment, are less well coordinated however. And issues like geographical distribution of programs that may have implications for duplication of programs, and efficiency/equity issues mentioned earlier also require more concerted attention.

That the team encountered great difficulty in collecting data for 2000 suggests the lack of institutional memory in WfD program provision. While it is true that the period saw major changes in organizational structure (such as the establishment of the Ministry of Higher Education (MOHE) in 2004 to take over some functions of the Ministry of Education (MOE) and the replacement of the

[20] Perhaps this lack of voice could be explained by the government's ability to maintain economic paternalism towards labor (Turner 2006: 343).

Lembaga Akreditasi Negara (LAN, National Accreditation Board) by the Malaysian Qualifications Agency (MQA)) and new legislation, documentation about the evolutionary history of WfD should exist with the respective agencies.[21] Perhaps these do exist, but the culture of information confidentiality that pervades government as a whole might have made such documentation hard to access. This culture is not conducive to any effort to collaborate with non-government stakeholders.

Further, in relation to reporting results for SABER-WfD, a likely consequence of the paucity of data for 2000 is to understate the achievements during that period and hence overstate the extent of improvement. This needs to be kept in mind in interpreting the results in the following sections.

Implications for Policy Development

Several policy recommendations emerge from these lessons. First is the need to give much greater emphasis to implementation and oversight. This means walking the talk to ensure that what policies intend are actually carried out on the ground. In particular, given improvements needed to ensure efficiency and equity in the use of funds, monitoring and evaluation based on impact rather than input and output need to be strengthened. Doing so does not require more personnel – Malaysia has already more public sector staff per capita than most countries in the world – but greater institutional capability. This capability depends on the quality of the output of the country's education system, another challenge to be addressed but outside the scope of this study.

Intensifying the focus on quality also requires a new approach to training provision that embraces the contribution of private providers. In Malaysia, the private providers of education and training emerged to fill the gaps that public sector provision cannot fulfill. This suggests a complementary, not competing, role, and to the extent they are competitive with public sector providers, this helps promote efficiency in service delivery. The increasingly competitive environment together with Malaysia's skill deficit suggests there is considerable room for both providers to coexist. Here is an area in which public-private partnership can be highly productive. But for this to happen, the current attitude that private institutions are not a match for public ones and should be more tightly controlled should give way to incorporating them fully into the WfD process. It is true that if left alone, private for-profit providers may engage in practices that drive profit rather than serve trainees' interests. That calls for appropriate regulation backed by effective monitoring. But both should be applied equally to public and private providers. And if incentives are available to public providers, they should be available to private providers as well.

That WfD is more receptive to what the industry wants does not mean the industry should get whatever it wants. Industry should get what it wants provided that it is also beneficial to the national interest in the long term. While avoiding capture of the state by vested interests is a tall order for all countries, it is particularly acute for Malaysia with the dominant role played by government-linked companies that are among the largest companies in the country. Yet, unless there is the political will to align WfD to strategic priorities that have been stressed repeatedly at the highest circles, realizing Vision 2020 will remain elusive.

Institutional coordination remains a high priority. This is particularly important given the large number of public agencies involved in public provision, and likely an equally large number of non-state providers. There is also an overall need for efficiency in public spending with the already large and rising public debt burden. Malaysia's record has not been exemplary. Despite allocating among the highest proportion of public funding for education as a share of GDP in Asia, the performance of Malaysia's education system continues to go down in international benchmarking assessments. Beyond efficiency is also the equity dimension of catering to those in greatest need.

Finally, although much improvement has occurred over the past decade, greater transparency of what public sector agencies have been doing and the assessment and/or impact of their activities from

[21] In May 2013, in a move to streamline and improve the quality of education, the Government announced the merger of the MOHE and the MOE to form a new MOE (Bernama 2013).

studies they conduct or commission will help the public learn about their achievements and empathize with the challenges they face. Indeed, transparency, rather than any public relations exercise, will likely be more effective in reversing negative public perceptions of TVET. Greater access to data collected to local researchers will also help to promote independent assessment of training provision and providers' performance. The sharp separation between training and research that was found in this study would thus be broken to the benefit of the country's WfD. For this to happen, easier access to government official data and documents would foster public confidence in the government's commitment to accountability.

4. Aligning Workforce Development to Key Economic and Social Priorities

WfD is not an end in itself but an input toward broader objectives – of boosting employability and productivity; of relieving skills constraints on business growth and development; and of advancing overall economic growth and social wellbeing. This chapter briefly introduces Malaysia's priorities and strategies as articulated in various policy documents to deal with the challenges elaborated in Chapter 2. The role of WfD in realizing these broad priorities and how well this role is fulfilled are the subjects of this chapter.

Malaysia's Vision 2020

In 1991, when former Prime Minister Mahathir tabled the Sixth Malaysia Plan in parliament, he articulated a vision, referred to as Vision 2020 (*Wawasan* 2020), that Malaysia would strive to become a developed nation by the year 2020, i.e., in 30 years from its launch. To him, development meant much more than a high level of income; it incorporated all the characteristics of a developed society.[22] This grand vision has been occasionally supplemented by other master plans. For instance, in the launch of the 2000 Budget, the plan for Malaysia to become a knowledge economy was made explicit. Since its launch, Vision 2020, together with its associated strategies, have been kept in the national consciousness by periodic policy announcements by policy-makers at all levels of government (see below).

This rhetoric has not been matched by action on the ground, however, and the several associated initiatives, especially the k-economy, had failed to take off for a number of reasons already highlighted in Chapter 2 (see also World Bank 2007; Yap and Rajah Rasiah 2013). With little to show even as Malaysia's growth rate decelerated after the AFC, a degree of urgency was injected when the prospect of Malaysia falling into a "middle-income" trap (see Gill and Kharas, 2007) was raised. The installation of Mohammad Najib Tun Abdul Razak as Prime Minister in 2009 finally provided the impetus for a more proactive approach towards achieving Vision 2020. In rapid succession, a group of international experts was called upon to produce a "New Economic Model" for Malaysia, and the Economic (ETP) and Government (GTP) Transformation Programs were launched. Overseen by a newly established Performance Management and Delivery Unit (PEMANDU) in the Prime Minister's Department, the ETP was to focus on 12 National Key Economic Areas (NKEAs) that would revitalize the economy and drive it towards Vision 2020. The year 2010 also saw the launch of the Tenth Malaysia Plan to support the transformative programs under the above initiatives.

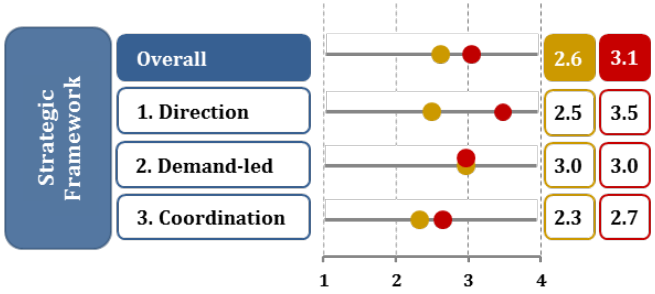
SABER-WfD Ratings of the Strategic Framework

This dimension provides the overarching framework in the form of an articulated strategic direction in which both suppliers of WfD and the end users of its output must play a major role, with coordination between these stakeholders also important. In the SABER-WfD framework, this role is expressed through actions to advance the following three Policy Goals: (i) setting a strategic direction for WfD; (ii) fostering a demand-led approach in WfD; and (iii) strengthening critical coordination among key WfD leaders and stakeholders. The ratings for these Policy Goals are presented and explained below, followed by a brief reflection on their implications for policy dialogue.

The results of the survey show that Malaysia has achieved an **Established** level in 2010, which implies sustained advocacy for WfD to support economic development (score 3.1); a substantial improvement over its performance in 2000 (score 2.6). This is shown in Fig. 4.1. This status reflects the fact that Malaysian leaders have been able to articulate a strategic vision for WfD (3.5) and foster a demand-driven approach (3.0), although less able to coordinate the roles played by and the activities of multiple public agencies engaged in WfD, not to mention the growing private sector presence over the decade (2.7).

[22] This vision was also laid out in a working paper Mahathir presented at the Malaysian Business Council in 1991 (Mahathir 1991).

Figure 4.1: Strategic Framework Scores, 2000 and 2010



In terms of articulating a strategic vision, such advocacy was spearheaded by political leaders and the government, and while the private sector was engaged, there was no sense of a shared vision primarily because major private sector stakeholders – employees and their unions – are excluded. In terms of fostering a demand-driven approach, the private sector's role could be characterized as broad but lacking depth. And there was little attention paid to monitoring WfD activities. As for coordination, Malaysia has not quite reached the Established level yet.

Policy Goal 1: Articulating a Strategic Direction

Leaders play an important role in crystallizing a strategic vision for WfD appropriate to the country's unique circumstances and opportunities. Their advocacy and commitment attract partnership with stakeholders for the common good, builds public support for key priorities in WfD, and ensures that critical issues receive due attention in policy dialogue. Taking these ideas into account, Policy Goal 1 assesses the extent to which leaders in government and in the private sector provide sustained advocacy for WfD priorities through institutionalized processes.

Malaysia's score for this Policy Goal rose from 2.5 in 2000 to 3.5 in 2010. This trend reflects progress in two underlying aspects of high-level leadership for WfD, namely sustained advocacy and clarity of strategic focus in aligning WfD to the country's economic agenda.

Strong strategic commitment at the top echelons of leadership has come on the back of the announcement of Vision 2020 by then Prime Minister Mahathir with the objective of Malaysia becoming a developed nation by that year. This Vision has entered successive development plans since then (Government of Malaysia 2000; 2001; 2006; 2010). However, as of 2000, non-state stakeholders – employers and workers unions – were little involved and could not have been party to this commitment (Fleming and Søborg 2012). But this changed over the decade under review, driven partly by external circumstances.

The country's impressive growth performance was abruptly interrupted by the AFC that began in 1997. The loss of economic momentum since the AFC, growing reliance on cheap imported labor to maintain its labor cost advantage, has heightened awareness that Malaysia's competitive edge was under threat. Finally, the unprecedented loss of the ruling party's two-thirds majority in Parliament in the 2008 general elections brought about a leadership change. Newly appointed Prime Minister Najib saw the need for major economic transformation to give substance to Vision 2020 and launched a slew of programs that began with the New Economic Model in 2010. Enhancement of human capital is at the center of this Model.

This strengthened focus was reflected in successive development plans. In the Seventh Malaysia Plan (1996-2000), the focus on vocational education had been at the secondary level, with the conversion of vocational secondary schools into secondary technical schools (Government of Malaysia 1996). However, building on the leadership's commitment, proactive measures were taken in the period 2000 – 2010. The Ninth Malaysia Plan (2006 – 2010) pledged to increase focus on initial vocational education and training (IVET) (Government of Malaysia 2006), but it was under the Tenth Malaysia Plan that much greater emphasis has been placed on mainstreaming TVET, including IVET (Government of Malaysia 2010). Reversing the decision made under the Seventh Plan, technical schools at the secondary level were to be rebranded as vocational schools and a new program for vocational education established. This enhanced focus undoubtedly benefited from education being deigned a "National Key Results Area" (NKRA) under the GTP launched in January 2010. And in terms of specific focus on a greater role of industry, the National Dual Training System (NDTS) (Box 4.1), a 2-year program consisting of 70-80 percent workplace training, began in 2005 (Pang 2010: 2).

In terms of translating strategic commitments to action, 1996 had seen the passage of the Private Higher Education Act and the launch of the LAN, both directed at regulating the private sector in its education role. Between 2000 and 2010, the above strategic commitments were translated into several courses of action. First, the regulatory framework for WfD was strengthened with the passage of the National Skills Development Act 2006. Second, budgetary allocations were increased between the Eighth and Ninth Plans (Government of Malaysia 2000; 2006). Third, an organizational framework was built around the Cabinet Committee on Human Capital Development (JKPMI) formed in 2009. The Malaysian Qualifications Framework was approved in 2005 and the MQA to oversee this Framework was established in 2007 (Box 4.2). The latter was preceded by the establishment of the Department of Skills Development (DSD) in 2006.

Box 4.1: The National Dual Training System (NDTS)

The genesis of the National Dual Training System (NDTS) was the strategy envisaged in Vision 2020 and given substance in the Eighth Malaysia Plan, 2001-2005 and the Third Outline Perspective Plan, 2001-2010, to transform Malaysia into a "knowledge economy" (Government of Malaysia 2000; 2001). The philosophy behind this is a "dual" learning environment of classroom and workplace for the delivery of training.

The system that was put in place was an adaptation of the dual training system in Germany, but with the central involvement of government. It consisted of a two-year program prepared by employers in collaboration with a training institution with 70 – 80 percent of the training undertaken in the workplace.

The NDTS began implementation in 2005 with training institutes of the Ministries of Human Resources, Higher Education, Youth and Sports, and Entrepreneur and Cooperative Development participating. The first intake consisted of 29 apprentices. By December 2009, about 22,000 apprentices had completed their NDTS training in about 1,000 companies (Pang 2010).

The implementation of the NDTS raises at least two issues. The first is whether such a major role by government is necessary, given the fact that the German system has been successful with much less state involvement. The second is whether the addition of another system to that based on the NOSS might not make for duplication and confusion in the marketplace.

These positives notwithstanding, two challenges need to be noted. First, the emphasis on initiatives has not been accompanied by attention to monitoring performance or measuring impact. These implementation challenges will be made amply clear in the analysis of other Policy Goals. And second, the pervasive presence of foreign workers in the Malaysian workforce has produced resistance to worker training on the grounds that the benefits of such training would be lost when these workers leave (Suganthi Suparmaniam 2011).

Box 4.2: The Malaysian Qualifications Agency (MQA)

The Malaysian Qualifications Agency (MQA) was established on November 1, 2007 from the merger of the LAN (National Accreditation Board) and the Quality Assurance Division, Ministry of Higher Education (QAD). The legislation governing this agency is the Malaysian Qualifications Agency Act 2007. Unlike the LAN, which had oversight over private sector tertiary (post-secondary) institutions only, the MQA is responsible for quality assurance of higher education for both the public and the private sectors.

In its website, the MQA cites as its main role "to implement the Malaysian Qualifications Framework (MQF) as a basis for quality assurance of higher education and as the reference point for the criteria and standards for national qualifications." Its specific functions are to:

- Develop standards and credits and all other relevant instruments as national references for the conferment of awards with the cooperation of stakeholders;
- Quality assure higher education institutions and programs;
- Accredit courses that fulfill the set criteria and standards;
- Facilitate the recognition and articulation of qualifications; and
- Maintain the Malaysian Qualifications Register (MQR)

Source: http://www.mqa.gov.my/.

Policy Goal 2: Fostering a Demand-led Approach to WfD

Effective advocacy for WfD requires credible assessments of the demand for skills, engagement of employers in shaping the country's WfD agenda and incentives for employers to support skills development. Policy Goal 2 incorporates these ideas and benchmarks the system according to the extent to which policies and institutional arrangements are in place to: (i) establish clarity on the demand for skills and areas of critical constraint; and (ii) engage employers in setting WfD priorities and in enhancing skills-upgrading for workers.

In this area, Malaysia has also done quite well. Its score of 3.0 in 2010 (also 3.0 in 2000) represents the average of scores for the five related Policy Topics: (i) overall assessment of economic prospects and skill implications (3.0), (ii) identification of critical skills constraints in priority economic areas (3.0), (iii) recognition of the roles of employers and industry (3.0), (iv) provision of skills-upgrading incentives for employers (4.0), and (v) monitoring of incentive programs (2.0). Among these tasks, Malaysia scored highest in the provision of skills upgrading incentives through its Human Resources Development Fund (HRDF), a levy on companies that can only be reclaimed by the latter through staff training (see Box 5.2). Employers participate in curriculum development as well as the offer of internships and industrial training. However, in monitoring of incentive programs, Malaysia's performance leaves much to be desired.

Notable activities up to 2000 included assessments of economic prospects and their implications for skills by German and Australian consultants (Blumenstein *et al*. 1999, Pang 2010) which were however never made public. However, industry was consulted during development planning exercises. Incentives for skills upgrading would come from employers' eligibility to claim from the HRDF, established in 1993, to which they contributed. The government itself provided training for industry instructors and workers through its training institutes. State assistance to the informal sector came in the form of the Amanah Ikhtiar Malaysia (AIM) based on the Grameen Bank Model to alleviate rural poverty through microfinance. The impact of AIM and other programs was subject to *ad hoc* evaluations which were however not made public.

In the decade to 2010, assessments of prospects and skill needs have been undertaken in the Ninth Malaysia Plan, but also by the Boston Consulting Group (BCG), the World Bank, the Ministry of Education through tracer studies in 2002 and 2006, and the Malaysian Employers Federation in a telephone survey in 2006 (ADB 2007: 12-13, BCG 2009, World Bank 2005, 2009). Skill constraints were also identified in the government's ETP launched in 2010. These constraints are to be rectified in the Tenth Malaysia Plan through upgrading course curricula, rebranding of TVET in secondary schools and the reconversion of technical schools into vocational schools. However, although a more

participatory process has been put in place, policymaking remains a top-down process. In terms of incentives, the HRDF remains the main arrangement, with the government continuing to support small- and medium-scale enterprises (SMEs) and the informal sector (see for instance Saad 2011).

Yet in the context of Malaysia, an established score in fostering a demand-driven approach does not preclude the need for continuing efforts to improve this aspect of the system. In fact, it is noteworthy that Malaysia's score for this Policy Goal has stagnated over the past decade. Several areas of improvement can thus be considered. First, key assessments of skill needs undertaken by foreign consultants are often confidential or only released well beyond their completion dates, thus excluding parties outside the government from timely access and dialogue. Second, decision making relating to addressing skills constraints remains a top-down process, although new approaches were introduced over the 2008-2010 period, with a more participatory framework through, for instance, the PEMANDU labs to take cognizance of stakeholder views. WfD champions have presumably been involved in formulating key measures, although the precise nature and extent of individual parties' roles is difficult to ascertain.

Third, despite its broad role in work-based training, the private sector's depth of engagement in the government's WfD remains limited throughout the decade under review. The private sector complained of a lack of incentives to participate and of having their presence diluted by the more numerous public agencies present in meetings in which they were present. To be fair, if the role of the private sector leaves room for improvement, blame cannot rest solely on the government. While WfD has been a top-down, government-driven process, employers wedded to the low labor-cost model might themselves not be overwhelmingly enthusiastic about promoting training.

Fourth, the expressed demand by industry for skilled labor has not changed its continued reliance on cheap and unskilled labor about which little has been done to shift away from. This low labor-cost model, supported by employers, has seen their opposition to training from the labor movement itself (see Malaysian Employers Federation 2010). Finally, monitoring is the weakest link of the incentive process. There was little by way of monitoring as the century began and no progress has been made over the decade since. Although total collections and disbursements from the HRDF as well as the number of employers registered are tracked annually in its annual reports, there has been, with the exception of one study (Tan 2005), no monitoring of training output let alone actual impact.

Policy Goal 3: Strengthening Critical Coordination for Implementation

Ensuring that the efforts of multiple stakeholders involved in WfD are aligned with the country's key socioeconomic priorities is an important goal of strategic coordination. Such coordination typically requires leadership at a sufficiently high level to overcome barriers to cross-sector or cross-ministerial cooperation. Policy Goal 3 examines the extent to which policies and institutional arrangements are in place to formalize roles and responsibilities for coordinated action on strategic priorities.

Several features of Malaysia's WfD context render coordination vital. First, as already elaborated, several ministries have responsibility over WfD, each with its own institutes running a wide variety of programs at different levels (see Table 4.3 for the list of institutes). Second, as the previous section highlighted, the public sector has played a dominant role in WfD. Third, private sector provision of WfD programs has increased in tandem with the bourgeoning of private higher education. This implies the need not only to coordinate across ministries but also with respect to private sector training provision.

Yet these very features have also rendered coordination a particular challenge. Assessment of this Policy Goal, representing the average performance of several specific Policy Topics generally bears this out. In 2010 Malaysia scored 2.7, with its components (i) role of government and ministries, (ii) role of non-government WfD stakeholders, and (iii) coordination for the implementation of strategic WfD measures scoring 2.0, 2.0 and 4.0 respectively.

With respect to the first two Policy Topics, the low scores reflect the fact that since 2000, a multiplicity of ministries oversaw an equally disparate array of training institutions with little coordination. In this report, the key ministries are the MOE, MOHE which took over some of the MOE's functions in TVET, the Ministries of Human Resources (MOHR), Rural and Regional Development (MRRD) under which are the MARA Institutes (Box 4.3), and Youth and Sports (MYS) with its own training institutes (National Youth Skill Training Institutes – IKBN), together with the Economic Planning Unit (EPU) of the Prime Minister's Department. But as Table 4.3 below shows, other ministries as well as states are also involved in the public sector.

This dispersal of jurisdiction over public training provision has resulted in substantial overlap in mandates and responsibilities. For instance, MOHE is responsible for community colleges and polytechnics, while MYS and MRRD also oversee post-secondary public training institutions. Another example is where community colleges have to contribute significantly to the skilled manpower needs of the country. For that, it was decided that the target of 120,000 trained graduates would complete the National Modular Certificate at these colleges by 2015 (MOHE 2012: 124 – 127).

Box 4.3: The Majlis Amanah Rakyat (MARA)

The Majlis Amanah Rakyat (MARA), or the Council of Trust for the Indigenous People, was established on March 1, 1966 as a statutory body by an Act of Parliament as a result of the first Bumiputera Economic Congress resolution in 1965. Its mandate is to develop, encourage, facilitate and foster the economic and social development of the Bumiputera (indigenous peoples) in the country, particularly in rural areas. In function, it replaced the Rural Industrial Development Authority, established by the British colonial administration in 1951. Although it is an autonomous government agency, it falls under the purview of the Ministry of Rural and Regional Development. MARA provides loans, entrepreneurship courses, vocational training, consultancy services, and assistance in marketing to *Bumiputera* entrepreneurs. In the provision of education and training, MARA operates a number of vocational colleges, the largest number among all ministries in the country (see Table 4.3). Universiti Teknologi MARA was operated by MARA but became its own entity under the MOHE.

Source: http://www.mara.gov.my.

Table 4.3: Ministries and Their TVET Training Institutes	
Ministry	**Institutes**
Ministry of Education (MOE)	• technical and vocational schools
Ministry of Higher Education (MOHE)	• community colleges • polytechnics • university colleges • universities
Ministry of Human Resources (MOHR)	• Industrial Training Institutes (ITI) • Centre for Instructor and Advanced Skills Training (CIAST) • Advanced Technology Training Centre (ADTEC) • Japan-Malaysia Technical Institute (JMIT)
Ministry of Rural and Regional Development (MRRD)	• Institut Kemahiran MARA (IKM) • Kolej Kemahiran Tinggi MARA (KKTM) • German-Malaysia Institute (GMI) • Universiti Kuala Lumpur (e.g. British Malaysian Institute (BMI), Malaysia France Institute (MFI), Malaysian Spanish Institute (MSI), Malaysian Institute of Aviation Technology (MIAT))
Ministry of Youth and Sports (MYS)	• Institut Kemahiran Belia Negara (IKBN) • Institut Kemahiran Tinggi Belia Negara (IKTBN)
Ministry of Agriculture (MOA)	• Ministry of Agriculture Institutes (e.g., various Institut Pertanian, Institut Akuakultur Marin, Institut Perikanan Malaysia, and Institue Veterina Malaysia)
Ministry of Defense (MOD)	• PERHEBAT[a/] Institutes
Ministry of Works (MOW)	• Construction Industry Development Board (CIDB)
States	• State institutes

Sources: Jailani *et al.* (2009: 2), Mohd Gazali Abas (2012).

a/ PERHEBAT (Perbadanan Hal Ehwal Bekas Angkatan Tentera) is the Armed Forces Ex-Servicemen Affairs Corporation.

In addition, these colleges were to contribute around 35 percent of skilled manpower in Malaysia by 2015. At the same time, polytechnics have to contribute significantly to the skilled manpower needs of the country by producing 490,000 trained graduates by 2020 (MOHE 2012: 71). Like community colleges, the polytechnics were to contribute around 33 percent of TVET manpower in Malaysia by 2020. Different ministries tend to provide programs that accord with their priorities and suit their level of expertise. This may help reduce the degree of overlap in the training substance delivered. A third example relates to the target audience. TVET under MOE's secondary schools target students who are still in the formal education system while those in polytechnics and community colleges are post-secondary programs that likely target the same cohort after leaving school, although the latter's programs are targeted at a wider spectrum of participants. Students graduating from the vocational and technical schools tend to enter the job market or

continue in the polytechnics or the few technical universities.

While overlaps are not necessarily a problem as long as training provision is able to meet skills demand, they raise concerns if this does not occur, a distinct possibility for a top-down, supply-driven system. And it would also not occur if multiple agencies were involved in strategizing workforce development without any institutionalized system of coordination and accountability. Coordination with non-state stakeholders was also limited to *ad hoc* consultations.

Progress towards coordination of TVET from a highly fragmented system has been made as recently as during the Ninth Malaysia Plan (2006 to 2010) but appears to have been scaled back since. The National Advisory Council on Education and Training (NACET) was established in 2007 under the Ninth Malaysia Plan. Chaired by the Deputy Prime Minister with the Economic Planning Unit of the Prime Minister's Department as its secretariat, NACET was to be responsible for the coordination of education and training as: a) the "Organization with the *highest authority* (our emphasis) to create policies in education and training," and b) "as a platform for discussion between (the) public and private sector (*sic*.)" (BCG 2009: 46). In this sense, NACET was to be an apex workforce development authority that would link workforce development to the country's economic development agenda. To give substance to this role, the Mid-term Review of the Ninth Malaysia Plan (Government of Malaysia 2008: 52) stated that NACET would formulate a comprehensive plan for lifelong learning programs which will cover distance-learning, part-time courses and skills upgrading to be implemented by various ministries and private training providers.

However, the BCG Report (2009: 46-47), while stating that NACET was to meet three times a year, noted that it had met only twice since it was formed and "it is not clear whether NACET has been fully leveraged". In 2009, the Cabinet Committee on Human Capital Development (JKPMI) was established. The JKPMI appears to have superseded NACET in its coordination role. Although also chaired by the Deputy Prime Minister with representation from various ministries, it has, unlike NACET, no private sector representation. Coordination of TVET has thus taken a step backward.

The respectable score for this Policy Goal of 2.7 is attributable to that for Policy Topic 3, which has achieved the **Advanced** status (score 4.0) for the implementation of WfD measures. This score rewards the expanded coverage of the MQF under the MQA, as well as enforcement to discourage non-compliance. Over the period 2008 to 2012, an average of 20 private tertiary education institutions were brought to court by the ministry each year, while in 2012 itself, 33 such institutes were considered for closure due to misconduct.

5. Governing the System for Workforce Development

An important function of WfD authorities is to foster efficient and equitable funding of investments in workforce development, to facilitate effective skills acquisition by individuals and to enable employers to meet their demand for skilled workers in a timely manner. The objective is to minimize systemic impediments to skills acquisition and mismatches in skills supply and demand. This chapter begins with a brief description of how the WfD system is organized and governed before presenting the detailed SABER-WfD findings on System Oversight and their policy implications.

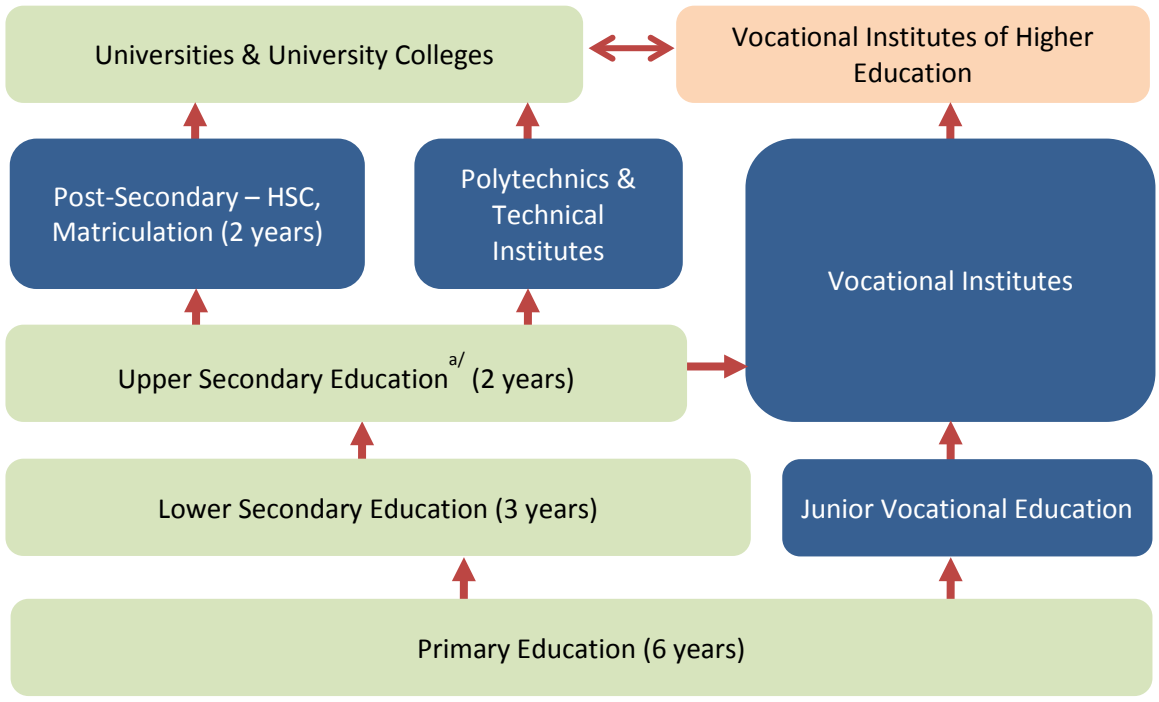
The preceding chapter has already alerted us to the gap between policy formulation and key aspects of implementation, namely coordination and monitoring, both within the public sector as well as with non-government stakeholders. This chapter concerned with details of system oversight confirms the existence of this gap.

Overall Institutional Landscape

Box 5.1 provides a graphical overview of the Malaysian education system. It has two tracks, one academic and the other vocational. Students' selection of track can occur on completion of primary education, during secondary education, and at the tertiary level. Students who complete their primary education can continue in junior vocational education institutions at the secondary school level, while those at upper secondary level can opt to enter vocational institutes. Movement between the academic and vocational streams is also possible for students in tertiary level institutions (see below).

This system has been well funded, with total education expenditure rising considerably over the decade 2000 to 2010. Table 5.1 shows this expenditure more than doubling from RM14.1 billion in 2000 to RM31.4 billion in 2009, with expenditure for 2010 slightly lower at RM30.5 billion. This represents a growth rate in excess of 10 percent a year over the decade. This growth has not been monotonic, nearly doubling between 2000 and 2003, falling off over the next four years, before surging in

Box 5.1: Malaysia's Education System



Source: Adapted from Abdul Rahman Ayub (2012)

a/ Includes secondary technical and vocational education.

Table 5.1: Education Expenditure and Total Public Expenditure, 2000 - 2010

	Total Education Expenditure (RM billion)	Total Public Expenditure (RM billion)	Education Expenditure. as % of	
			Public Expenditure	GNP
2000	14.1	78.0	18.0	4.8
2001	18.6	91.0	20.4	6.7
2002	20.7	100.5	20.6	6.3
2003	26.2	109.8	23.9	7.4
2004	23.9	112.5	21.2	6.3
2005	16.7	117.4	14.2	3.8
2006	19.8	136.7	14.5	3.9
2007	22.1	159.5	13.9	3.8
2008	29.5	176.8	16.7	4.4
2009	31.4	207.9	15.1	4.1
2010	30.5	191.5	15.9	4.3

Source: MOE *Quick Facts* (various issues)

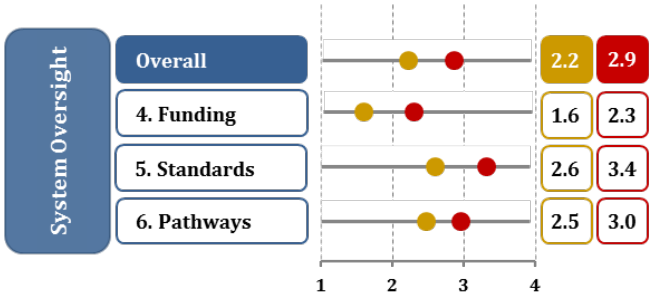
2008. Total government expenditure has grown even faster, at 14.5 percent, so that as a proportion of total government expenditure, that on education has fallen between 2000 and 2010 from 18 percent to 16 percent. A similar decline, although slight, is recorded when education expenditure is expressed as a percentage of GNP. The early surge in education expenditure saw both these indicators peak in 2003.

It has not been possible to show a continuous series for expenditure on vocational education. For 2011, the Social Statistics Bulletin 2012 (Department of Statistics, 2012; Table 3.32) shows expenditure for vocational schools at RM10.9 billion out of RM31.2 billion spent on education. This figure represents an underestimate because a footnote to the data indicated that the expenditure by MOHE was excluded.

SABER-WfD Ratings on System Oversight

The SABER-WfD framework identifies three pertinent Policy Goals corresponding to oversight mechanisms for influencing the choices of individuals, training

Figure 5.1: SABER-WfD Ratings of the System Oversight Dimension



providers and employers: (i) ensuring efficiency and equity in funding; (ii) assuring relevant and reliable standards; and (iii) diversifying pathways for skills acquisition. The ratings for these Policy Goals are presented and explained below, followed by a reflection on their implications for policy dialogue.

Based on data collected by the SABER-WfD questionnaire, Malaysia receives an overall rating of **Established** (score 2.9) for system oversight (see Figure 5.1 below) in 2010. This score is the average of the ratings for three underlying Policy Goals: ensuring efficiency and equity of funding (2.3); assuring relevant and reliable standards (3.4); and diversifying pathways for skills acquisition (3.0). The explanation for these ratings and their implications follow below.

Overall improvement in the score for this dimension (from 2.2 in 2000 to 2.9 in 2010) belies the uneven performance in the achievement of these three goals. While limitations continue to exist in the assessment of funding efficiency and equity, the other two policy goals showed creditable improvement over the decade. The poor performance of ensuring efficiency and equity speaks to the lack of attention paid to assessing impact, despite the program's access to ample funds and strengthening of standards and pathways.

Policy Goal 4: Ensuring Efficiency and Equity in Funding

WfD requires a significant investment of resources by the government, households and employers. To ensure that these resources are effectively used it is

important to examine the extent to which policies and institutional arrangements are in place to: (i) ensure stable funding for effective programs in initial, continuing and targeted TVET; (ii) monitor and assess equity in funding; and (iii) foster partnerships with employers for funding WfD.

Malaysia's WfD suffers no shortage of funding on paper, whether fiscally from the federal government or through levies on companies based on their revenues. Funding for WfD in the form of IVET and CVET[23] comes both from fiscal sources, through taxation and the taking on of debt for public sector training provision, and also from a dedicated training fund paid into by companies, the HRDF for training of private sector employees (see Box 5.2).[24] Funding also takes the form of the Skills Development Fund managed by the Skills Development Fund Corporation (PTPK) that provides loans to school leavers and graduates of skills training institutions to undertake TVET at the SKM level in public and accredited private training institutions.[25] Given the dominant role of the federal government, it is no surprise that the bulk of public sector WfD funding comes from this source. The actual funding mechanism for development expenditure is allocated under Malaysia's five-year development plans, and disbursed through the federal government's annual budget. In practice, however, the emphasis given to tertiary education may mean that funds allocated to TVET have been less plentiful. Scholarships awarded by the government and government-linked companies have been mainly for tertiary education.

Over the decade of 2000 – 2010, improvements have been recorded in recurrent funding for CVET and for active labor market programs (albeit from a very low base), and in terms of public-private collaboration. However, there remains much room for improvement on both efficiency and equity grounds. Recurrent funding for IVET and CVET had been based primarily on past expenditure and enrollments (see EPU 2004, Mohamed Aslam and Tan 2012, Nor Azlina 2013, Schiavo-Campo and McFerson 2008, Siddiquee 2013). On the private sector side, it has also been reported that little of HRDF funds had gone to SMEs in 2000 (HRDF 2010).

Over the decade however, greater attention had been given to WfD priorities from time to time. In particular, progress has been made in terms of targeting allocations for recurrent funding of active labor market programs. For 2011, greater focus on on-the-job training for SMEs was reflected in two programs. The first, as much a response to anxieties over the poor quality of university graduates, was the Graduate Employability Program introduced in 2009 and available to all public higher learning institutions including community colleges. The second was mandatory industrial training for students, for which industry partners provided a token allowance with a view to considering trainees for permanent employment. Given their relatively recent implementation, these programs have yet to be reviewed for impact.

[23] At the beginning of the decade, funding for retraining had been minimal, even for workers retrenched in the aftermath of the 1997-98 AFC. Worker retraining did not receive public fund allocations, and the number of workers benefiting from HRDF was a mere 572 in 1998 and 426 in 1999 (Jomo and Lee 2010).

[24] The HRDF consists of a mandatory levy on companies employing 50 workers or over. However, under the provisions of the Human Resources Development Act 2001, the Minister of Human Resources is empowered to exempt fully or partially any employer from payment of the mandatory levy (Pembangunan Sumber Manusia Berhad Act 2001, incorporating all amendments up to 1 January 2006, Act 612, Laws of Malaysia, Part III, Section 19).

[25] The Skills Development Fund Corporation (PTPK) was established in 2006 under the Skills Development Fund Act 2004.

Box 5.2: The Human Resources Development Fund

The Human Resources Development Fund (HRDF) was established in 1993 to promote training, retraining and development of Malaysia's workforce to meet the demands of a knowledge-based high-income economy in line with Vision 2020. Since 2001, the HRDF has been administered by Pembangunan Sumber Manusia Berhad (PSMB), an agency under the Ministry of Human Resources.

Its source of funds is a mandatory levy of 1 percent of the monthly wage of workers for several categories of enterprises above a certain size, defined in terms of the number of employees, depending on the economic sector, with enterprises below that minimum size having the option to contribute. For instance, for manufacturing, enterprises with 50 workers and above are obliged to contribute.

Employers can seek reimbursement for a part of the costs they incur in providing training for their workers. Eligibility for reimbursement depends on the type of skills imparted (e.g. upskilling, reskilling, cross-skilling) and on whether the training programs are recognized" by PSMB.

In its 2010 Annual Report, PSMB provided the following data.

	2006	2007	2008	2009	2010
Levy collected (RM million)	289	312	340	237	221
Training grants disbursed (RM million)	220	260	288	301	270
% of collection disbursed	76.1	83.3	84.7	127	122.2

Although the Fund operates on the principle of cost sharing, disbursements in 2009 and 2010 have exceeded collections by a wide margin. With 110% of allowable costs eligible for reimbursement from January 1, 2013, the Fund is in deficit and operates more like a subsidy during this period. However, given the pro-cyclical nature of such schemes, this is expected to be reversed at other times.

Source: HRDF main web page at: http://www.hrdf.com.my/wps/portal/PSMB/MainEN/corporate-profile/about-psmb/

From the early 2000s, HRDF has also made efforts to raise awareness and participation among SMEs, (Government of Malaysia 2003: 113-114) with the result that the utilization rate among SMEs rose from 34% in 1999 to 76% in 2010. Additional incentive has been provided through matching 1-to-1 grants from federal government allocations although allocation for this scheme remains small – just RM10 million in 2011. The Tenth Malaysia Plan (2011-2015) will expand the coverage of these matching grants to HRDF and SME Corporation Malaysia, and provide financial assistance in the form of loans for employees to undergo training to enhance their qualifications.[26]

Further, considerable room exists for strengthening active labor market programs that respond to market needs; these were absent in 2000, and only beginning to emerge in 2010, likely because of the much greater attention attracted by graduate employment concerns (see Bernama 2012; Fleming and Søborg 2012; Nor Azina Ismail 2011: 94;).[27] As Table 5.2 shows, the graduate unemployment rate has fluctuated between three and four percent from 2000 to 2010, which is somewhat higher than that for the decade prior. The concern is in the absolute number of unemployed graduates—a consequence of the rapid increase in the number of graduates in the labor market.

[26] SME Corporation Malaysia was established as a specialized agency in 1996 to facilitate the development of capable and resilient SMEs that are able to compete in the global market (http://www.smecorp.gov.my/vn2/node/40).

[27] Jomo and Lee (2000) noted the absence of funds for retraining workers retrenched during the AFC. The number of workers benefiting from HRDF was a meager 572 in 1998 and 426 in 1999.

Table 5.2: Graduate Employment and Unemployment, 1990 – 2010

Year	No. of Employed Graduates ('000)	No. of Unemployed Graduates ('000)	% of Graduates Unemployed
1990	382.5	9.1	2.3
1995	563.1	9.7	1.7
2000	1,006.4	32.8	3.2
2002	1,252.2	47.6	3.7
2004	1,479.0	64.0	4.1
2006	1,636.4	65.7	3.9
2008	1,660.3	54.1	3.2
2010	2,030.6	65.5	3.1

Source: Department of Statistics, Malaysia (2011), Table A1a.

Between 2002 and 2006, the federal government through public funds sponsored Graduate Training Schemes (Lim 2009). And in 2009, the Graduate Employability Management Scheme (GEMS) managed by the Putrajaya Committee for Government-Linked-Company High Performance and Khazanah ran job-matching and training programs for unemployed graduates of tertiary institutions (Government of Malaysia 2010: 235). This program targeted graduates from tertiary education institutions, and enlisted the aid of government-linked companies, which generated earnings from commercial activities. Despite now generous funding and quite extensive data collection (see Policy Goal 9), little is publicly known of any effort made to ascertain the impact of all the funding on intended beneficiaries, rendering accurate judgment on funding efficiency and equity difficult.

In terms of partnerships between training providers and employers, the government has had, since 2000, formal arrangements to link training providers (suppliers of training) with employers (consumers of training). However, this linkage was only at the institutional level. In 2010, public-private collaboration had also extended to employers contributing financially, as well as equipment, technical knowledge and personnel, and training facilities.[28] These advances notwithstanding, public-private collaboration remained relatively shallow.

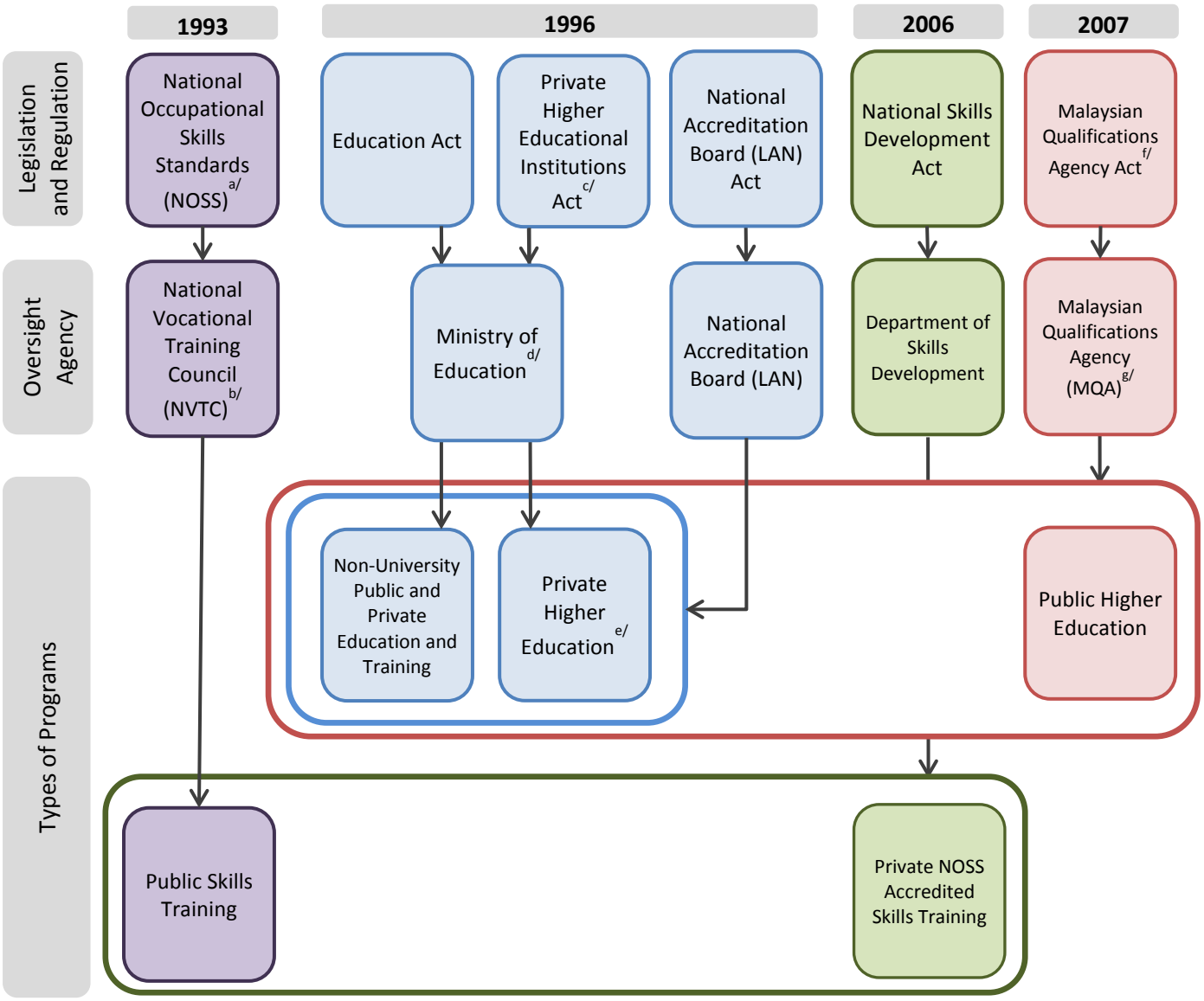
Policy Goal 5: Assuring Relevant and Reliable Standards

The WfD system comprises a wide range of training providers offering courses at various levels in diverse fields. An effective system of standards and accreditation enables students to document what they have learned and employers to identify workers with the relevant skills. For Policy Goal 5 it is therefore important to assess the status of policies and institutions to: (i) set reliable competency standards; (ii) assure the credibility of skills testing and certification; and (iii) develop and enforce accreditation standards for maintaining the quality of training provision.

Malaysia's oversight structure of TVET is shown in Figure 5.3. The country has made considerable progress over several dimensions of Policy Goal 5, from the establishment of competency standards to skills testing, to ensure the application of relevant and reliable standards. Its score of 3.4 (between Established and Advanced) in 2010 compared to just 2.6 in 2000 reflects this progress. This progress took several forms.

[28] Examples were reported to be Proton, the Faber Group, Malaysia Airlines and Mesiniaga.

Figure 5.3: Oversight Structure of Malaysian TVET, 1989-2010



Source: Authors' construction.

a/ NOSS replaced the National Trade Standards which was implemented in 1971 with the National Industrial Trade Testing and Certification Board (NITTCB) as the ooversight agency.

b/ The NVTC replaced the NITTCB in 1989 and oversaw the implementation of the NOSS until 2006 when it was reorganized as the Department of Skills Development.

c/ The Private Higher Education Institutions Act provided for the establishment of private universities and university colleges.

d/ From 2004 the Ministry of Higher Education had oversight responsibility for the private universities and university colleges until it merged with the Ministry of Education in 2013.

e/ Tertiary (post-secondary) private institutions including private universities and university colleges.

f/ This Act creates the MQF, which incorporates the NOSS. Under this act there are two oversight agencies. The Dept Skills Development oversees the NOSS. The MQA oversees non-NOSS programs.

g/ The MQA's Qualifications Framework covers all educational and training courses and programs.

Box 5.3 The National Occupational Skill Standard (NOSS) System

NOSS Definition:	*A specification of the competencies expected of a skilled worker/professional gainfully employed in Malaysia for an occupation area and level as required by industries*		
Job Function	**Type of Malaysia Skill Certificate under NOSS**	**SKM[a/] Level or Equivalent**	**Definition of Competency**
Management	Advanced Diploma (Diploma Lanjutan Kemahiran Malaysia (DLKM))	5	• Competency in applying a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts • Very substantial personal autonomy and often significant responsibility for the work of others and allocation of substantial resources • Personal accountabilities for analysis and diagnosis, design, planning, execution and evaluation
Supervision	Diploma (Diploma Kemahiran Malaysia (DKM))	4	• Competency in performing a broad range of complex technical or professional work activities, performed in a wide variety of contexts with a substantial degree of personal responsibility and autonomy • Some responsibility for the work of others and the allocation of resources
	Certificate Level (SKM Tahap) 3	3	• Competency in performing a broad range of activities, performed in a variety of contexts, most of which are complex and non-routine • Considerable responsibility and autonomy with guidance from others
Operations and Production	Certificate Level (SKM Tahap) 2	2	• Competency in performing a significant range of activities (both routine and non-routine), performed in a variety of contexts • Some individual responsibility and autonomy
	Certificate Level (SKM Tahap) 1	1	• Competency in performing a range of varied activities, most of which are routine and predictable

Source: Department of Skills Development (2013a)

a/ SKM refers to Sijil Kemahiran Malaysia (Malaysian Skills Certificate)

The first, and the most advanced as well as showing the greatest improvement of the three policy actions reviewed, was of the establishment of competency standards and national qualification frameworks (from score 2.5 in 2000 to 4.0 in 2010). In 2000, Malaysia did not have a national qualification framework, and standards, to the extent they existed, were fragmented. At the tertiary level, LAN only covered private sector institutions. The NOSS (see Box 5.3, introduced in 1993, likewise covered only 467 occupations in 2000 (Government of Malaysia 2000: 109; Pang, Jailani and Spottl 2009). By 2010, the National Skills Development Act 2006 and Malaysian Qualifications Agency (MQA) Act 2007 established a national qualifications framework – the MQF. NOSS has since been subsumed under this

Framework, while the MQA has been given much more resources and authority compared to its predecessor the LAN. Also, the DSD under MOHR had taken responsibility for NOSS accreditation.
Second, the above was accompanied by the broadening of coverage of occupations and range of occupational skills. Thus the coverage of NOSS had expanded to reach 1,585 by 2010, compared to less than 500 occupations in 2000. The range of skill levels had likewise been deepened. This has permitted Malaysia's score to improve from 2.7 to 3.3 between 2000 and 2010 for the second policy action. All NOSS-based training was required to be accredited by the National Vocational Training Council (NVTC) and LAN in 2000, and by the DSD in the MOHR and the MQA in 2010. The DSD also conducted audits of testing centers and also issued all certification (with the exceptions below) in 2010.

Third, because the NOSS involves skills testing, the decade saw greater certification of skills testing in tandem with the increase in occupation coverage under NOSS (DSD 2013a) (the score improving from 2.7 to 3.0 for the third policy action). Accreditation standards had already been established by 2000. And enforcement has been helped by the requirement that all publicly funded programs had to be accredited. Mandatory rules were combined with incentives, mainly in the form of recognition of the training provided.

In all these areas, policy-making in 2010 has become more participatory compared to 2000, with the government, non-state entities like the employers and industry associations, and training providers all involved. This broad-based participation has been the result of provisions in the National Skills Development Act 2006 and the Malaysian Qualifications Agency Act 2007. The 2006 Act also established the National Skills Development Council (see Box 5.4).

Given that several ministries have responsibility over WfD, the establishment, regulation and enforcement of a common set of standards and testing serve to effectively unify the substance of training. Thus, the strengthening of the accreditation process, from establishment of standards to enforcement, and from narrow to wide coverage, has helped to offset somewhat the institutional challenge of having to coordinate multiple entities delivering TVET, already discussed.

Box 5.4: Policy-making for Competency Standards

Policy-making on competency standards in the MQF is in the hands of the National Skills Development Council (NSDC), established under the National Skills Development Act 2006. This Act stipulates that there should be representation from women's organizations and a private training provider on the Council. This Act also requires engagement with industry in the formulation of NOSS. The CIDB has played such a role, especially since the mid-2000s.

Similarly, the Malaysian Qualifications Agency Act 2007 allows for 8 representatives with special knowledge and experience in higher education and employment, including two from the professional bodies. The above represents real progress since 2000, when the NVTC, and the LAN, predecessors of the NSDC and MQA respectively, had no non-state representation.

Policy Goal 6: Diversifying the Pathways for Skills Acquisition

In dynamic economic environments workers need to acquire new skills and competencies as well as keep their skills up-to-date throughout their working lives. They are best served by a system of initial and continuing education and training that promotes lifelong learning by offering clear and flexible pathways for transfers across courses, progression to higher levels of training and access to programs in other fields. For those already in the workforce, schemes for recognition of prior learning are essential to allow individuals to efficiently upgrade their skills and learn new ones. Policy Goal 6 therefore evaluates the extent to which policies and institutions are in place to: (i) enable progression through multiple learning pathways, including for students in TVET streams; (ii) facilitate the recognition of prior learning; and (iii) provide targeted support services, particularly among the disadvantaged.

Malaysia's achievement in Policy Goal 6 has progressed towards an **Established** level (score 3.0) in 2010 from a score at the top end of the Emerging level (2.5) in 2000. The 2010 score represents the average of scores of: (i) access to learning pathways (3.0), (ii) strengthening public perception of TVET pathways (3.0), (iii) articulation of skills certification (3.0), (iv) recognition of prior learning (3.0), (v)

Table 5.3: Enrollment in Higher Education Institutions under MOHE, 2001 – 2010

Year	Public Tertiary Inst.	Private Tertiary Inst.	Polytechnics	Community Colleges	TAR College	Total Enrollment
2001	304,628	270,904	51,839	1,108		628,479
2002	281,839	294,600	52,898	3.207	31,858	664,402
2003	294,359	314,344	53,492	6,424	29,537	698,156
2004	293,978	322,891	64,382	8,945	26,098	716,294
2005	307,121	258,825	73,834	9,873	24,846	674,499
2006	331,025	323,787	82,046	11,273	26,150	774,280
2007	382,997	365,800	84,250	14,438	25,753	873,238
2008	419,334	399,897	85,280	17,082	26,235	947,828
2009	437,420	484,377	86,471	17,279	25,179	1,050,726
2010	462,780	541,629	87,751	18,200	23,774	1,134,134

Source: http://www.mohe.gov.my/web_statistik/indikator_pengajian_tinggi_2009-2010.pdf

support for further occupational and career development (3.0), and (vi) training-related provision of services for the disadvantaged (3.0). Improvements have been recorded in government initiatives to improve the public's perception of TVET (from score 2.0 in 2000 to 3.0 in 2010), recognition of prior learning (2.0 to 3.0), and support for further occupational and career development (2.0 to 3.0). The scores for the remaining tasks – access to learning pathways and services for the disadvantaged – had remained at the Established level for the entire decade.

As the numbers enrolled in higher education institutions have grown over the decade (Table 5.3), access to learning pathways has expanded over the decade. Students could pursue TVE during their 9th to 10th year of schooling (upper-secondary). At the post-secondary level, TVET is offered in public sector polytechnics, community colleges, and, in 2010, specialized universities. Students following TVET have the option of staying in that stream or rejoining the academic stream. One area of diversification that occurred during the decade was when, in 2007, community college rebranding led to the introduction of work-based diploma programs that allowed graduates from them to pursue undergraduate studies (Government of Malaysia 2010: 221). MARA also provided an academic track for its graduates with certificate holders proceeding to the diploma level and then to MARA's University in Kuala Lumpur or to public universities. Better articulation also came in the form of more widespread skills certification.

Efforts to strengthen public perception of TVET have been made over the decade through improving the quality of programs and the employability of TVET graduates, and allowing the latter to progress to tertiary education (see previous paragraph). School counselors were tasked with promoting student awareness of technical occupations. A graduate tracer study by MOHE tracked the employability of graduates from polytechnics and community colleges (MOHE 2011). With respect to facilitating student progress to tertiary education, the establishment of the Malaysian Technical University Network (MTUN), comprising Malaysia's four technical universities, would allow articulation into diploma/degree programs for skills training graduates.

Articulation of skills certification works through government recognition of certificates issued upon completion of TVET programs. In 2000 the system recognized: a) NOSS under the MOHR, b) the public sector polytechnics under the MOE, and c) LAN under the MOE covering private higher education. SKM level 3 graduates could gain admission to other certificate and diploma programs at the polytechnics and community colleges. By 2010 the MQF expanded coverage to private higher education and allowed certificate holders at diploma level to articulate to university studies.

While in 2000, recognition of prior achievement (RPA) was given on a relatively small scale[29], much greater focus had been attached to RPA in recent years. Community colleges had been made the government vehicle to provide lifelong learning (LLL) courses for the needy. Further, in 2010, unlike in 2000, RPA had been integrated into the national qualifications framework, with MQA publishing guidelines on what constitutes RPA.

Support for further occupational and career development had been strengthened in several ways. By 2000, all secondary schools had at least one full-time guidance counselor. The government also established (in 1997) the National Higher Education Fund Board under MOE to provide educational loans for those wishing to further their education in the polytechnics and other institutions of higher education. The NDTS (described earlier) began implementation in 2005. And in 2009, the Manpower Department had established JobsMalaysia Centers and Points in 11 major urban centers and to provide community-based career counseling and job matching services (MOHR 2013). MARA provides free tuition for skills training and upgrading at its training institutes (MARA 2013).

In terms of support for disadvantaged persons, the Department of Social Welfare, Ministry of National Unity and Community Development (now Ministry of Women, Family and Community Development (MWFCD) has been offering skills training to people with disabilities in its Sheltered Workshops since 1979. Students with disabilities have also been reserved places and/or receive monthly allowances at public sector training institutes (Kamarulzaman Kamaruddin 2007). Under the Ninth Malaysia Plan (2006-2010), MWFCD established Community-Based Rehabilitation Centers that provide comprehensive services to people with disabilities. These services included vocational training and job placement.

How well are these initiatives implemented? Participants at the SABER-WfD workshop spoke about issues in implementation, including differentiation of treatment by institution. A specific example was given of students in NOSS-based institutions graduating with a certificate while those in institutions under the MOHE graduated with a diploma although they had gone through identical courses.

Diversification of learning pathways combined with greater recognition of prior learning has expanded opportunities for accreditation. Broadening of skills certification as well as better support for occupational and career development was also given impetus by the government's ETP.

[29] For an account of LLL around 2000, see Mohamed Rashid and Mohd. Nasir (2003).

6. Managing Service Delivery

Training providers, both non-state and government, are the main channels through which the country's policies in WfD are translated into results on the ground. This chapter therefore provides a brief overview of the composition of providers and the types of services available in the system before presenting the detailed SABER-WfD findings on Service Delivery and their policy implications.

Overview of the Delivery of Training Services

The public agencies that supervise training provision of TVET also do so for non-state providers. Although very little information, qualitative and quantitative, is available on the latter group, the role played by them is increasing in line with their role in academic education. In making passing mention of the private sector, Jailani *et al*. (2009) singled out Universiti Kuala Lumpur (UniKL), Universiti Tenaga Nasional (UNITEN), Universiti Teknologi Petronas (UTP), KL Infrastructure University College (KLIUC), Multimedia University (MMU), Universiti Industri Selangor (UNISEL) and Limkokwing University College of Creative Technology as private training providers offering diploma-level training as well as first degrees, while Zuraidah (2008) also included institutes like the GMI and BMI in this sector.

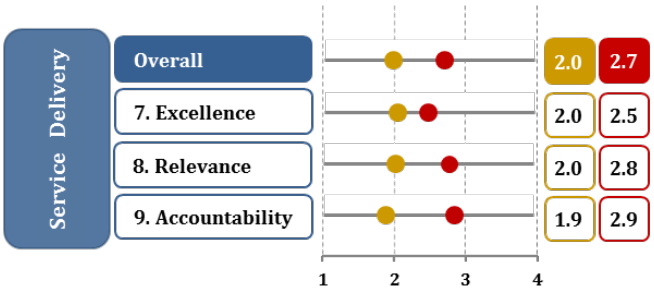
This lack of clarity on who are this sector's training providers speaks to the lack of information already referred to above. In fact, given many other private education and training institutions offering TVET,[30] there is much more to private provision than through the institutions above. The extent of this is not precisely known currently, however. Figure 6.2 documents available knowledge on the types of providers offering training services. It also illustrates the complexity of service delivery in the Malaysian system.

SABER-WfD Ratings on Service Delivery

The Policy Goals for this Dimension in the SABER-WfD framework focus on the following three aspects of service delivery: (i) enabling diversity and excellence in training provision; (ii) fostering relevance in public training programs; and (iii) enhancing evidence-based accountability for results. The ratings for these three Policy Goals are presented below and are followed by a reflection on their implications for policy dialogue.

Based on data collected by the SABER-WfD questionnaire, Malaysia receives an overall rating of 2.7 (at the lower end of the **Established** level) for the Service Delivery Dimension in 2010 (see Figure 6.1). This score is the average of the ratings for the underlying Policy Goals: (i) enabling diversity and excellence in training provision (2.5); (ii) fostering relevance in public training programs (2.8); and (iii) enhancing evidence-based accountability for results (2.9). The explanation for these ratings and their implications follow in the sections below.

Figure 6.1: SABER-WfD Ratings of the Service Delivery Dimension



[30] One example is The Otomotif College (TOC) (www.toc.edu.my), which enrolls on average 1,500 students a year. Another is Taylor's University (www.taylors.edu.my), which undertakes training under HRDF.

Figure 6.2: Federal, State and Private Institutions Providing TVET by Skill Level, 2012

Ministry or Agency [a/]	No. of Institutions	Total Enrollment	Under the Malaysian Skills Certificate (SKM) System					Bachelor of Eng Tech
			Certificates			Diplomas		
			1	2	3	4	5	
MOE	88	25,000	Technical and Vocational Schools[b/]					
MOHE	71	17,000	Community colleges					
	28	88,000	Polytechnics					
	4	30,000[c/]	MTUN (UniMAP, UMP, UTeM, UTHM)[d/]					
MOHR	22	10,800	Industrial Training Institutes (ITIs)					
	1	3,200				Japan-Malaysia Technical Institute (JMTI)		
	4					Advanced Technical Training Centre (ADTEC)		
	1	538[e/]			Centre for Instructor and Advanced Skill Training (CIAST)			
MRRD	1	2,000				German-Malaysian Institute (GMI)		
	12	10,000	MARA Vocational Institute (IKM)[f/]					
	9	2,700	MARA Higher Skills College (KKTM)[f/]					
	202	19,000	Local Youth Awareness Movement (GiatMara)[g/]					
	1	15,300				Universiti Kuala Lumpur[h/]		Universiti Kuala Lumpur[h/]
MYS	15	8,200	National Youth Skill Training Institute (IKBN)[f/]					
	1				National Youth Higher Skills Training Institute (IKTBN)[f/]			
MOA	7	700	Ministry of Agriculture Institutes[i/]					
MOD	5	805	Institutes of the Armed Forces Ex-Servicemen Affairs Corporation (PERHEBAT)					
MOW	6	37,000	Construction Industry Development Board (CIDB)					
States	31	20,000	State Institutes					
Private	500-600	60,000	Accredited Centers					

Source: CIDB (2011), Department of Skills Development (2013b, 2013c), GiatMARA (2008), Mohd Gazali Abas (2012), MOHE (2010); Pang (2011).
a/ Full names of the ministries or agencies are shown in the list of abbreviations at the end of the report.
b/ Students sit for the Sijil Pelajaran Malaysia Vokasional (SPMV, Malaysian Certificate of Vocational Education) at the end of their study and some programs lead to the SKM.
c/ Of whom 3,500 were at the diploma level, 24,600 at the bachelor's level and the rest at the postgraduate level.
d/ The acronyms refer, respectively, to Universiti Malaysia Perlis (UniMAP), Universiti Malaysia Pahang (UMP), Universiti Teknikal Malaysia Melaka (UTeM) and Universiti Tun Hussein Onn Malaysia (UTHM).
e/ Enrollment only in courses leading to Vocational Training Officer Certificate (VTO), SKM level 3 and VTO, Vocational Instructor Advanced Diploma (DLPV).
f/ Acronyms stand for the Bahasa Malaysia equivalent of the terms in English; see list of abbreviations for the full explanation.
g/ GiatMARA (Gerakan Insaf Anak Tempatan), established in 1986 as a non-profit, grassroots training institution under MARA, provides skills training and lifelong learning to school dropouts, retrenched workers and poor students from the Bumiputera ethnic community.
h/ Includes the British Malaysian Institute (BMI), Malaysia France Institute (MFI), Malaysian Spanish Institute (MSI), Malaysian Institute of Aviation Technology (MIAT).
i/ Includes the Institut Pertanian, Institut Akuakultur, Institut Perikanan Malaysia, and Institute Veterina Malaysia.

The most important development in this area is the rapid expansion of private sector provision, in tandem with the explosive growth of private post-secondary education. This diversification of provision from what began as, and in terms of policies still is, a public sector-led top-down system means attention to service delivery is important for providers from both sectors. This is Policy Goal 7. Given the initial attention devoted to public sector institutions, it is not surprising that Malaysia was scored at the Emerging level in 2000, and even with improvements over the past decade, has not attained an Established score in 2010. Among public sector providers themselves, a top-down approach runs the risk of disconnect in terms of substance between the supply of training and the demand for it. This is indeed what has been observed in the assessment of the extent to which Policy Goal 8 has been achieved, although again, improvements have occurred over the past decade, the score rising from 2.0 to 2.8. Given both this disconnect and the limited attention to impact evaluations, Policy Goal 9, enhancing accountability for results, displays scores not too different from those of the two earlier policy goals (7 and 8). The progress made over the past decade is still commendable, however.

Policy Goal 7: Incentivizing Diversity and Excellence in Training Provision

Because the demand for skills is impossible to predict with precision, having a diversity of providers is a feature of strong WfD systems. Among non-state providers the challenge is to temper the profit motive or other program agendas with appropriate regulation to assure quality and relevance. Among state providers a key concern is their responsiveness to the demand for skills from employers and students. Striking the right balance between institutional autonomy and accountability is one approach to address this concern. Policy Goal 7 takes these ideas into account and benchmarks the system according to the extent to which policies and institutional arrangements are in place to: (i) encourage and regulate non-state provision of training and (ii) foster excellence in public training provision by combining incentives and autonomy in the management of public institutions.

In terms of promoting diversity in training provision, some, but not all, credit should go to the government. The rise of private education, the source of this diversity, was in fact the result of the demand for tertiary education exceeding what public universities could absorb. Private post-secondary education provision burgeoned to cater to this unmet demand (Table 6.1). The government's response was the passage of the Private Higher Educational Institutions Act in 1996 (Government of Malaysia 2000). Under this Act, non-government institutions such as tuition centers, training institutes, language centers (like the British Council), and professional organizations (e.g. the Malaysian Institute of Management) were all classified as higher education institutions and thus required to register as private higher education institutions (Tan 2002: 124). The result was a more than two-fold increase in the number of private higher education institutions from 280 to 611 in the four years from 1995 to 1999. These primarily for-profit private institutions played an increasing role in training provision as well.

Table 6.1: Indicators Showing the Expansion of Higher Education in Malaysia, 1967-2007

Indicators	1967	2002	2007
No. of public universities	1	18	20
No. of private universities and university colleges	0	12	33[a/]
No. of foreign branch campuses	0	4	4
No. of private colleges and higher education institutions	2	518	488[b/]
No. of polytechnics	0	13	24
No. of community colleges	0	17	37
No. of students (postgraduate)	4,560 (398)	262,626 (31,501)	873,238 (45,888)
No. of Malaysian students studying abroad	n.a.	42,780	54,915

a/ Excludes branch campuses
b/ Includes branch campuses
Source: Hill *et al.* (2013) Table 1.

But not all private institutions were for-profit. NGOs such as the Monfort Boys Town and the YWCA Vocational Training Opportunity Centre also offered vocational courses. And state and semi-state owned institutions like the Sekolah Agama Darul Ehsan Islam (a religious polytechnic funded by the Selangor State Government) and Yayasan Pelajaran MARA (MARA Education Trust) were required to register as private education institutions (Tan 2002: 124). To the extent that foreign institutions entered into partnerships with Malaysian private institutions, they also played an important role.[31] Thus, the non-government sector consisted of a diverse mix of providers.

Despite the Private Higher Education Institutions Act, challenges with establishing the autonomy of private institutions persisted, with regulations that impose compulsory subjects on all private higher education institutions in addition to other subjects taught, and empower the Minister of Education, at any time, to direct that the national language be the medium of instruction even in the case of foreign universities, as well as the establishment in 1996 of LAN to oversee quality only in private colleges.[32] Recognition of the private sector role came with the Private Higher Education Institutions Act 1996. The government's objective of becoming an education hub represented a reversal of its earlier stance. Private providers continue to face constraints in their operations, however. As an example, Malaysia's TVET sector was opened to foreign providers only in 2012. Before 2012, there were only bi-national TVET providers such as the German-Malaysian Institute and the French-Malaysian Institute (Custer 2012).

The same is true of incentives for private sector training provision. The government provides almost no direct incentives for non-state provision. The main incentive for private training providers since 2000 has been the benefits of adopting NOSS, in terms of accredited content and standards. NOSS accredited programs issued certificates bearing the recognized Malaysian Skills Certificate stamp, a good marketing tool. For these trainers, a financial incentive consists of eligibility to claim reimbursement from levies they made to HRDF. To the extent tax exemption constitutes an incentive, this incentive exists for HRDF levies, not to training programs. Priority programs were able to obtain higher reimbursement rates (Mohd Gazali Abas 2012). Registration with the HRDF also afforded training providers eligibility for selection by employers seeking training for their employees. Financial assistance was also available through the Small and Medium Industries Development Corporation (SMIDEC) Skills Upgrading Program.

One qualification to the above is that the Ministry of Youth and Sports through IKBN provided and funded external training for its trainees in external training institutions from 2002. This was mainly in the area of hospitality management with private colleges such as Taylor's College and Kolej Damansara Utama among the non-state training providers. As non-financial incentives, these providers also gained access to the latest equipment. They were also authorized to issue government approved certificates.

While the profit motive provides the incentive to meet targets for private providers, this link is absent among public institutions. For each ministry engaged in TVET, targets had been set. Thus, before the establishment of MOHE, technical and vocational schools under the MOE would be expected to achieve certain targets, although much of this is allocated (enrollment, funding) centrally. Three principles to adhere to were: (i) accessibility; (ii) equity; and (iii) quality. Secondary education level institutions were given targets for enrollment, graduation and job placement rates. After the MOHE was established, it was the objective that community colleges should contribute to meeting the skilled manpower needs of the country. For instance, it was decided that 120,000 trained graduates from these colleges should complete the National Modular Certificate by 2015. Likewise, with skill shortages high on the government agenda by the end of the decade, both IKBN and MARA expected about 80 percent of their graduates to

[31] Foreign for-profit institutions include the branch campuses of foreign universities and institutes set up through inter-government cooperation (e.g., the German-Malaysian and British Malaysian institutes).

[32] The compulsory subjects are Malaysian Studies, Islam in the case of Muslim students and Moral Education in the case of non-Muslim students.

enter industry. Despite all these requirements, it is not known if a reward system existed for training institutions under the above ministries should they achieve their targets.

Nor is there a link between autonomy and accountability among these institutions. This is not particularly surprising given the top-down approach and traditional focus on input rather than output. Any improvement over the past decade had thus been modest. That said, the degree of autonomy varied somewhat between ministries. The MOE's public training institutions for secondary education had little autonomy, with major decisions coming from the central government. Selection for admission, purchase of materials, staff hire, fire and remuneration were all centrally determined. Nor were they allowed to generate and retain revenues. This system remained in place when MOHE took over post-secondary education. Similarly, MARA's individual vocational institutes (IKMs) and MYS' IKBN centers also enjoy little to no autonomy in their operations. All decisions regarding curricula and program development, recruitment of instructors and lecturers, and recommendations for changes are centrally determined by the Skills and Technical Division (Bahagian Kemahiran dan Teknikal) and Management Standardisation Unit (Unit Penyelarasan Pengurusan) respectively. For the institutions under MOHR, a degree of autonomy was introduced in 2007, with some institutions allowed to offer new courses and engage with local industry. Income generation was also allowed. By 2010, the Department of Polytechnic Education of MOHE reported that 17 colleges had availed themselves of this opportunity and established trust funds.

Policy Goal 8: Fostering Relevance in Public Training Programs

Public training institutions need reliable information on current and emerging skills demands in order to keep their program offerings relevant to market conditions. It is therefore desirable for public training institutions to establish and maintain relationships with employers, industry associations, and research institutions. Such partners are a source of both information about skills competencies and expertise, and advice on curriculum design and technical specifications for training facilities and equipment. They can also help create opportunities for workplace training for students and continuing professional development for instructors and administrators. Policy Goal 8 considers the extent to which arrangements are in place for public training providers to: (i) benefit from industry and expert input in the design of programs and (ii) recruit administrators and instructors with relevant qualifications and support their professional development.

Malaysia is evaluated as being close to an **Established** level of development (score 2.8 in 2010) for this Policy Goal. This score is the average of scores for: (i) links between training institutions and industry (2.8), (ii) an industry role in curriculum design (4.0) and (iii) in the design of facility standards (2.0), (iv) links between training and research institutions (2.6), (v) recruitment and in-service training of heads of public training institutions (3.0) and (vi) instructors of these institutions (2.4).

Comparison between the 2000 (2.0) and 2010 (2.8) scores shows Malaysia's progress in attaining this Policy Goal. Most notable has been the improvement in giving industry a major role in curriculum design (from a creditable score of 3.0 in 2000 to 4.0 in 2010) which stands in sharp contrast to its role in designing facility standards (which remained at the Emerging level throughout the decade. It is clear that it was the former collaboration which drove the improved links between training institutions and industry (the score rising from 2.0 to 2.8). Links between training providers and research institution, vital to ensure curricula and training methods are up-to-date, have improved but still have a long way to go (1.0 to 2.6). Recruitment and in-service training of heads and instructors have seen some improvement, but more for the former.

The picture painted by these scores is one in which links with industry with respect to curriculum design have become well established. Industry experts play important roles in curriculum design in public training institutions under MOHE, with the Community College Department in particular benefiting from formal inputs from industry experts as and when needed. Since 2006, MARA has designed its curricula based on inputs from industry

experts and academicians. At times MARA permitted industries without the latest equipment to use its training centers to train on new machines and equipment. Industry experts also had opportunities to provide curriculum feedback through the MARA Council in which they were represented. Similarly, IKBN's links with industry-based institutes had helped shape curricula while collaborations with local institutions like Universiti Tun Hussein Onn Malaysia (UTHM) also enabled research on vocational and technical training that could improve teaching substance and methods.

However, industry had no role in the specification of facility standards, which was the sole responsibility of government. To the extent industry experts were involved, this was only during workshops or when they were invited to facilitate courses. This was the case for the entire decade. Some progress was reported by MARA, however.[33] Like MARA, MYS's IKBN obtained industry feedbacks from students' on-the-job training, which were compiled and presented to the IKBN's Technical Advisory Committee.

Notably, Malaysia has moved from a situation of having no links between training and research institutions to one where some links existed. In 2000, it was reported that MOE instructors were trained in institutions that lacked a research orientation or were full universities. And the only link consisted of inclusion of research institutions at the central level to provide inputs at formal meetings. This changed somewhat by 2010, with one university (the Faculty of Technical Education, UTHM) playing the lead role in training vocational school teachers for a new NOSS-based curriculum under the TVE transformation program mentioned earlier. This collaboration had led to new training programs incorporating NOSS. Aside from this, no link was reported between post-secondary training institutions with research institutions. In 2012, community colleges were reported to have begun to undertake research, but it was not clear if this was in collaboration with research institutions. IKBN had, by 2010, also established links with local universities to offer the latter's programs or to create learning pathways.[34] MOHR's links with research institutions only began around 2007, when some ITIs and ADTECs signed memoranda of understanding with several universities to share facilities and instructor training.

In terms of headship of training institutions as well as the recruitment of instructors, minimum qualifications were stressed. Those recruited served within a civil service system which is hierarchical and positions are filled by internal promotion. The emphasis on qualifications and relevant experience is salutary. Filling leadership positions through internal promotion, a feature of the civil service, while providing incentives for ministry and training center staff, has its downside of excluding candidates with industry experience. An important way to remedy this, through in-service training both for heads and instructors, has received greater emphasis over the years. However, it is unclear to what extent such training has enhanced their and their respective institutions' capabilities, especially in meeting industry needs.

Policy Goal 9: Enhancing Evidence-Based Accountability for Results

Systematic monitoring and evaluation of service delivery are important for both quality assurance and system improvement. Accomplishing this function requires gathering and analyzing data from a variety of sources. The reporting of institution level data enables the relevant authorities to ensure that providers are delivering on expected outcomes. Such data also enable these authorities to identify gaps or challenges in training provision or areas of good practice. Additionally, periodic surveys and evaluations of major programs generate complementary information that can help enhance the relevance and efficiency of the system as a whole. Policy Goal 9 considers these ideas when

[33] One example was the Welding Institute and the Fiber Optic Association providing input to the professional courses provided by them. MARA's Technical Advisory Committee which comprises industry players like Petronas and Toyota also provided inputs to MARA courses.

[34] IKBN has established links with Universiti Teknologi Malaysia to offer the latter's Diploma in Technology. IKBN Termerloh signed MOUs with UTHM to look into training and advice for IKBN courses. It introduced new courses (certificates/diplomas) in automotive technology, casting technology and processing that, on completion, led to the bachelor's degree in technology at the university.

assessing the system's arrangements for collecting and using data to focus attention on training outcomes, efficiency and innovation in service delivery.

Adequate information and information flow are particularly important in the Malaysian context. First, the multiplicity of players and oversight bodies makes it even more complex for parents and students to make informed decisions. Second, a lack of information serves to entrench misconceptions of the status and role of TVET in relation to academic education.

Malaysia is evaluated as being close to an **Established** level of development (score 2.9 in 2010) for this Policy Goal. This score is the average of scores for: (i) the availability of administrative data from training providers (3.0) and/or (ii) through surveys and other data collection means (3.4), and (iii) the use of such data to monitor and improve program and system performance (2.2). It is in the first (2.3 to 3.0) and second areas (1.5 to 3.4) that Malaysia has shown the most improvement over the decade. But for the poor assessment of the third component – use of data for monitoring – Malaysia would have scored an Established level for this Policy Goal.

Improvement in the coverage and dissemination of administrative data collected is best illustrated in developments at the MOE. Secondary institutions collected data on enrollments and other administrative data such as staffing and budgets, graduation rates and job placement, which were compiled in annual reports initially for internal use (2000) but subsequently also for public dissemination (2010). Post-secondary training institutions provided similar data, except that only administrative information was required in 2000, but data for graduation, job placement and client feedback were included in 2010. Non-state post-secondary institutions were also required to report data, and most did, but it required visits from MOE officials to obtain them. Reporting requirements for MOHE which took over post-secondary level institutions were initially similar to those of MOE, but were progressively enhanced. MOHE also monitored data collection by non-state institutions, although only partial compliance was achieved.

Other public training providers also generate and disseminate substantial administrative data. For MARA, all training centers (the MARA Technical College – KKTM and the MARA Vocational Institute – IKM) were required to submit data on course enrolment and passing/failure rates to MARA headquarters. Data provided included administrative statistics, graduate and job placement information, graduates' earnings and client feedback. Annual reports were produced for internal use and also publicly disseminated. Individual colleges also maintained their own databases. The MOHR's training institutions saw enhancement of administrative data collected between 2000 and 2010. While only basic data to evaluate progress and review policy were collected in 2000, tracer studies of graduates conducted from 2004 also yielded information on employment and job outcomes. And since 2005, student evaluations conducted twice a year were used to evaluate courses, equipment, and instructors (in compliance with ISO 9001 requirements). As for the HRDF, evaluation by employers after every training program was required in 2010. Effectiveness studies were conducted by HRDF's Research and Development Unit annually for approved programs, and once in 3 years for HRDF as a whole.

The MYS's institutions, however, generated much less administrative data. Even as of 2010, there was no systematic requirement for every IKBN to submit reports. Performance reports were needed only for the publication of annual reports made available for internal (government) use only. Among non-state training providers, the NVTC maintained records of the Malaysian Skills Certificates awarded, and in the process, also kept track of enrollment in 2000. While most training providers complied with the reporting requirements, there was no central database into which submitted data could be stored

Perhaps because of the fairly extensive administrative data collected, much less emphasis has been placed on other means of data collection. Thus, the MOE conducted surveys on specific issues, including impact evaluation of specific activities only on an *ad hoc* basis. And as of 2010, both IKBN and MARA headquarters conducted tracer studies of graduates at convocations to assess the employability of graduates. However, beyond

graduate employability, there was no evidence that impact evaluation of programs was ever undertaken.

Notwithstanding the absence of impact evaluation, ministries do use the data collected to monitor program and system performance. While this was done even in 2000, it was much more pervasive by 2010. The MOE had used the data collected to monitor and assess the performance of its institutions in 2000. However the improvement over the decade lies in that while such assessments were not publicly disseminated in 2000, they were available online by 2010. The MOHE has followed in the MOE's footsteps, moving further to use the data collected, together with performance evaluations, to construct a rating system for community colleges in 2013. Feedback to community colleges was provided regularly. Good practices and lessons were shared through meetings of heads as well as through seminars and online. Summaries of reports were also available online to the public. The MOHR had also seen major advances in the use of data. While the Manpower Department had relied on data to monitor center performance throughout the decade, by 2010, an additional initiative, by the state-operated Center for Instructor and Advanced Skill Training (CIAST)[35], was a tracer study of its graduates, including information on employment and earnings. CIAST's, and other study reports, were available online. Whether performance targets were viewed administratively or substantively is unknown, however.

[35] CIAST is under the Manpower Department, MOHR, and has been operational since 1984. Its establishment was sponsored by the Government of Japan. Details of its operations can be found in its website at www.ciast.gov.my.

Annex 1: List of Acronyms

ADB	Asian Development Bank
ADTEC	Advanced Technical Training Centre
AFC	Asian Financial Crisis
AIM	Amanah Ikhtiar Malaysia (Endeavour Trust of Malaysia)
ASEAN	Association of Southeast Asian Nations
BCG	Boston Consulting Group
BMI	British Malaysian Institute
CIAST	Centre for Instructor and Advanced Skill Training
CIDB	Construction Industry Development Board
CVET	Continuing Vocational Education and Training
DCI	Data Collection Instrument
DKM	Diploma Kemahiran Malaysia (Malaysian Skills Diploma)
DLKM	Diploma Lanjutan Kemahiran Malaysia (Malaysian Higher Skills Diploma)
DSD	Department of Skills Development, MOHR
ECCE	Early Child Care and Education
EPU	Economic Planning Unit, Prime Minister's Department
ETP	Economic Transformation Program
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEMS	Graduate Employability Management Scheme
GFC	Global Financial Crisis
GMI	German-Malaysia Institute
GTP	Government Transformation Program
HRDF	Human Resources Development Fund
HSC	Higher School Certificate
ICT	Information and Communications Technology
IKBN	Institut Kemahiran Belia Negara (National Youth Skill Training Institute)
IKM	Institut Kemahiran MARA (MARA Vocational Institute)
IKTBN	Institut Kemahiran Tinggi Belia Negara (National Youth Higher Skills Training Institute)
ILO	International Labour Organization
ITI	Industrial Training Institute
IVET	Initial Vocational Education Training
JKPMI	Jawatankuasa Kabinet mengenai Pembangunan Modal Insan (Cabinet Committee on Human Capital Development)
JMIT	Japan-Malaysia Technical Institute
KKTM	Kolej Kemahiran Tinggi MARA (MARA Higher Skills College)
KLIUC	KL Infrastructure University College
LAN	Lembaga Akreditasi Nasional (National Accreditation Board)
LLL	Lifelong Learning
MARA	Majlis Amanah Rakyat (Council of Trust for the Indigenous People)
MFI	Malaysia France Institute

MIAT	Malaysian Institute of Aviation Technology
MMU	Multimedia University
MOA	Ministry of Agriculture
MOD	Ministry of Defense
MOE	Ministry of Education
MOHE	Ministry of Higher Education
MOHR	Ministry of Human Resources
MOW	Ministry of Works
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
MQR	Malaysian Qualifications Register
MRRD	Ministry of Rural and Regional Development
MSI	Malaysian Spanish Institute
MTUN	Malaysian Technical University Network
MWFCD	Ministry of Women, Family and Community Development
MYS	Ministry of Youth and Sports
NACET	National Advisory Council for Education and Training
NDTS	National Dual Training System
NEAC	National Economic Advisory Committee
NIE	Newly Industrialized Economy
NKEA	National Key Economic Areas
NKRA	National Key Results Areas
NOSS	National Occupational Skills Standards
NSDC	National Skills Development Council
NVTC	National Vocational Training Council
OECD	Organisation for Economic Co-operation and Development
PEMANDU	Performance Management and Delivery Unit (of the Prime Minister's Department)
PERHEBAT	Perbadanan Hal Ehwal Bekas Angkatan Tentera (Armed Forces Ex-servicemen Affairs Corporation)
PISA	Program for International Student Assessment
PSMB	Pembangunan Sumber Manusia Berhad (Human Resources Development Limited)
QAD	Quality Assurance Division, MOHE
RM	Ringgit Malaysia
RPA	Recognition of Prior Achievement
SABER	Systems Approach for Better Education Results
SKM	Sijil Kemahiran Malaysia (Malaysian Skills Certificate)
SME	Small- and Medium-scale Enterprises
SMIDEC	Small and Medium Industries Development Corporation
SPMV	Sijil Pelajaran Malaysia Vokasional (Malaysian Certificate of Vocational Education)
TIMSS	Trends in International Mathematics and Science Study
TOC	The Otomotif College
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Education, Scientific and Cultural Organization

UniKL	Universiti Kuala Lumpur
UniMAP	Universiti Malaysia Perlis
UNISEL	Universiti Industri Selangor
UNITEN	Universiti Tenaga Nasional
UTeM	Universiti Teknikal Malaysia Melaka
UTHM	Universiti Tun Hussein Onn Malaysia
UTP	Universiti Teknologi Petronas
VTO	Vocational Training Officer
WfD	Workforce Development

Annex 2: The SABER-WfD Analytical Framework

		Policy Goal		Policy Action	Topic	
Dimension 1	Strategic Framework	G1	Setting a Strategic Direction	Provide sustained advocacy for WfD at the top leadership level	G1_T1	Advocacy for WfD to Support Economic Development
					G1_T2	Strategic Focus and Decisions by the WfD Champions
		G2	Fostering a Demand-Led Approach	Establish clarity on the demand for skills and areas of critical constraint	G2_T1	Overall Assessment of Economic Prospects and Skills Implications
					G2_T2	Critical Skills Constraints in Priority Economic Sectors
				Engage employers in setting WfD priorities and in enhancing skills-upgrading for workers	G2_T3	Role of Employers and Industry
					G2_T4	Skills-Upgrading Incentives for Employers
					G2_T5	Monitoring of the Incentive Programs
		G3	Strengthening Critical Coordination	Formalize key WfD roles for coordinated action on strategic priorities	G3_T1	Roles of Government Ministries and Agencies
					G3_T2	Roles of Non-Government WfD Stakeholders
					G3_T3	Coordination for the Implementation of Strategic WfD Measures
Dimension 2	System Oversight	G4	Ensuring Efficiency and Equity in Funding	Provide stable funding for effective programs in initial, continuing and targeted vocational education and training	G4_T1	Overview of Funding for WfD
					G4_T2	Recurrent Funding for Initial Vocational Education and Training (IVET)
					G4_T3	Recurrent Funding for Continuing Vocational Education and Training Programs (CVET)
					G4_T4	Recurrent Funding for Training-related Active Labor Market Programs (ALMPs)
				Monitor and enhance equity in funding for training	G4_T5	Equity in Funding for Training Programs
				Facilitate sustained partnerships between training institutions and employers	G4_T6	Partnerships between Training Providers and Employers
		G5	Assuring Relevant and Reliable Standards	Broaden the scope of competency standards as a basis for developing qualifications frameworks	G5_T1	Competency Standards and National Qualifications Frameworks
					G5_T2	Competency Standards for Major Occupations
				Establish protocols for assuring the credibility of skills testing and certification	G5_T3	Occupational Skills Testing
					G5_T4	Skills Testing and Certification
					G5_T5	Skills Testing for Major Occupations
				Develop and enforce accreditation standards for maintaining the quality of training provision	G5_T6	Government Oversight of Accreditation
					G5_T7	Establishment of Accreditation Standards
					G5_T8	Accreditation Requirements and Enforcement of Accreditation Standards
					G5_T9	Incentives and Support for Accreditation
		G6	Diversifying Pathways for Skills Acquisition	Promote educational progression and permeability through multiple pathways, including for TVET students	G6_T1	Learning Pathways
					G6_T2	Public Perception of Pathways for TVET
				Facilitate life-long learning through articulation of skills certification and recognition of prior learning	G6_T3	Articulation of Skills Certification
					G6_T4	Recognition of Prior Learning
				Provide support services for skills acquisition by workers, job-seekers and the disadvantaged	G6_T5	Support for Further Occupational and Career Development
					G6_T6	Training-related Provision of Services for the Disadvantaged
Dimension 3	Service Delivery	G7	Enabling Diversity and Excellence in Training Provision	Encourage and regulate non-state provision of training	G7_T1	Scope and Formality of Non-State Training Provision
					G7_T2	Incentives for Non-State Providers
					G7_T3	Quality Assurance of Non-State Training Provision
					G7_T4	Review of Policies towards Non-State Training Provision
				Combine incentives and autonomy in the management of public training institutions	G7_T5	Targets and Incentives for Public Training Institutions
					G7_T6	Autonomy and Accountability of Public Training Institutions
					G7_T7	Introduction and Closure of Public Training Programs
		G8	Fostering Relevance in Public Training Programs	Integrate industry and expert input into the design and delivery of public training programs	G8_T1	Links between Training Institutions and Industry
					G8_T2	Industry Role in the Design of Program Curricula
					G8_T3	Industry Role in the Specification of Facility Standards
					G8_T4	Links between Training and Research Institutions
				Recruit and support administrators and instructors for enhancing the market-relevance of public training programs	G8_T5	Recruitment and In-Service Training of Heads of Public Training Institutions
					G8_T6	Recruitment and In-Service Training of Instructors of Public Training Institutions
		G9	Enhancing Evidence-based Accountability for Results	Expand the availability and use of policy-relevant data for focusing providers' attention on training outcomes, efficiency and innovation	G9_T1	Administrative Data from Training Providers
					G9_T2	Survey and Other Data
					G9_T3	Use of Data to Monitor and Improve Program and System Performance

Annex 3: Rubrics for Scoring the SABER-WfD Data

Functional Dimension 1: Strategic Framework				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G1: Setting a Strategic Direction for WfD	Visible champions for WfD are either **absent** or take **no specific action** to advance strategic WfD priorities.	**Some** visible champions provide ***ad-hoc*** advocacy for WfD and have acted on **few** interventions to advance strategic WfD priorities; **no arrangements** exist to monitor and review implementation progress.	**Government leaders** exercise **sustained** advocacy for WfD with **occasional, *ad-hoc*** participation from **non-government leaders;** their advocacy focuses on **selected** industries or economic sectors and manifests itself through **a range** of specific interventions**;** implementation progress is monitored, albeit through ***ad-hoc*** reviews**.**	**Both government and non-government leaders** exercise **sustained** advocacy for WfD, and rely on **routine, institutionalized** processes to collaborate on **well-integrated** interventions to advance a **strategic, economy-wide** WfD policy agenda; implementation progress is monitored and reviewed through **routine, institutionalized** processes**.**

Functional Dimension 1: Strategic Framework				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G2: Fostering a Demand-Led Approach to WfD	There is **no assessment** of the country's economic prospects and their implications for skills; industry and employers have a **limited or no role** in defining strategic WfD priorities and receive **limited** support from the government for skills upgrading.	**Some *ad-hoc*** assessments exist on the country's economic prospects and their implications for skills; **some** measures are taken to address critical skills constraints (e.g., incentives for skills upgrading by employers); the government makes **limited** efforts to engage employers as strategic partners in WfD.	**Routine** assessments based on **multiple data sources** exist on the country's economic prospects and their implications for skills; a **wide range** of measures with **broad** coverage are taken to address critical skills constraints; the government recognizes employers as strategic partners in WfD, **formalizes** their role, and **provides support** for skills upgrading through incentive schemes that are **reviewed and adjusted**.	A rich array of **routine and robust** assessments by **multiple stakeholders** exists on the country's economic prospects and their implications for skills; the information provides a basis for a **wide range** of measures with **broad** coverage that address critical skills constraints; the government recognizes employers as strategic partners in WfD, **formalizes** their role, and **provides support** for skills upgrading through incentives, including some form of a **levy-grant scheme**, that are **systematically reviewed** for impact and **adjusted** accordingly.

Functional Dimension 1: Strategic Framework				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G3: Strengthening Critical Coordination for Implementation	Industry/employers have a **limited or no role** in defining strategic WfD priorities; the government either provides **no incentives** to encourage skills upgrading by employers or conducts **no reviews** of such incentive programs.	Industry/employers help define WfD priorities on an ***ad-hoc*** basis and make **limited** contributions to address skills implications of major policy/investment decisions; the government provides **some** incentives for skills upgrading for formal and informal sector employers; if a levy-grant scheme exists its coverage is **limited**; incentive programs are **not systematically** reviewed for impact.	Industry/employers help define WfD priorities on a **routine** basis and make **some** contributions in **selected** areas to address the skills implications of major policy/investment decisions; the government provides **a range** of incentives for skills upgrading for all employers; a levy-grant scheme with **broad** coverage of formal sector employers exists; incentive programs are **systematically** reviewed and **adjusted;** an annual report on the levy-grant scheme is published with **a time lag**.	Industry/employers help define WfD priorities on a **routine** basis and make **significant** contributions in **multiple** areas to address the skills implications of major policy/investment decisions; the government provides **a range** of incentives for skills upgrading for all employers; a levy-grant scheme with **comprehensive** coverage of formal sector employers exists; incentive programs to encourage skills upgrading are **systematically** reviewed for **impact on skills and productivity** and are **adjusted** accordingly; an annual report on the levy-grant scheme is published in **a timely fashion**.

Functional Dimension 2: System Oversight				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G4: Ensuring Efficiency and Equity in Funding	The government funds IVET, CVET and ALMPs (but not OJT in SMEs) based on ***ad-hoc*** budgeting processes, but takes **no action** to facilitate formal partnerships between training providers and employers; the impact of funding on the beneficiaries of training programs has **not been recently reviewed**.	The government funds IVET, CVET (including OJT in SMEs) and ALMPs; funding for IVET and CVET follows **routine** budgeting processes involving **only government officials** with allocations determined largely by the **previous year's budget**; funding for ALMPs is decided by government officials on an ***ad-hoc*** basis and targets **select** population groups through various channels; the government takes **some** action to facilitate **formal** partnerships between individual training providers and employers; recent reviews considered the impact of funding on **only training-related indicators** (e.g. enrollment, completion), which stimulated dialogue among **some** WfD stakeholders.	The government funds IVET, CVET (including OJT in SMEs) and ALMPs; funding for IVET is **routine** and based on **multiple** criteria, including evidence of program effectiveness; recurrent funding for CVET relies on **formal** processes with **input** from key stakeholders and annual reporting **with a lag**; funding for ALMPs is determined through a **systematic** process with **input** from key stakeholders**;** ALMPs target **diverse** population groups through various channels and are reviewed for impact but follow-up is **limited**; the government takes action to facilitate **formal** partnerships between training providers and employers at **multiple** levels (institutional and systemic); recent reviews considered the impact of funding **on both** training-related indicators and labor market outcomes; the reviews stimulated dialogue among WfD stakeholders and **some** recommendations were implemented.	The government funds IVET, CVET (including OJT in SMEs) and ALMPs; funding for IVET is **routine** and based on **comprehensive** criteria, including evidence of program effectiveness, that are **routinely reviewed and adjusted**; recurrent funding for CVET relies on **formal** processes with **input** from key stakeholders and **timely annual reporting**; funding for ALMPs is determined through a **systematic** process with **input** from key stakeholders; ALMPs target **diverse** population groups through various channels and are reviewed for impact and **adjusted** accordingly; the government takes action to facilitate **formal** partnerships between training providers and employers at **all levels** (institutional and systemic); recent reviews considered the impact of funding on a **full range** of training-related indicators and labor market outcomes; the reviews stimulated **broad-based** dialogue among WfD stakeholders and **key** recommendations were implemented.

Functional Dimension 2: System Oversight				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G5: Assuring Relevant and Reliable Standards	Policy dialogue on competency standards and/or the NQF occurs on an ***ad-hoc*** basis with **limited** engagement of key stakeholders; competency standards have **not been defined**; skills testing for major occupations is **mainly theory-based** and certificates awarded are recognized by **public sector employers only** and have **little** impact on employment and earnings; **no system** is in place to establish accreditation standards.	**A few** stakeholders engage in ***ad-hoc*** policy dialogue on competency standards and/or the NQF; competency standards exist for a **few** occupations and are used by **some** training providers in their programs; skills testing is competency-based for a **few** occupations but for the most part is **mainly theory-based**; certificates are recognized by **public and some private sector employers** but have **little impact** on employment and earnings; the accreditation of training providers is supervised by a **dedicated office** in the relevant ministry; private providers are required to be accredited, however accreditation standards are **not consistently publicized or enforced**; providers are offered **some** incentives to seek and retain accreditation.	**Numerous** stakeholders engage in policy dialogue on competency standards and/or the NQF through **institutionalized** processes; competency standards exist for **most** occupations and are used by **some** training providers in their programs; the NQF, if in place, covers **some** occupations and **a range** of skill levels; skills testing for **most** occupations follows standard procedures, is competency-based and assesses **both theoretical knowledge and practical skills**; certificates are recognized by **both public and private sector employers** and **may impact** employment and earnings; the accreditation of training providers is supervised by a **dedicated agency** in the relevant ministry; the agency is responsible for defining accreditation standards with **stakeholder input**; standards are reviewed on an ***ad-hoc*** basis and are publicized or enforced to **some** extent; all providers receiving public funding must be accredited; providers are offered **incentives** and **limited support** to seek and retain accreditation.	**All key** stakeholders engage in policy dialogue on competency standards and/or the NQF through **institutionalized** processes; competency standards exist for **most** occupations and are used by training providers in their programs; the NQF, if in place, covers **most** occupations and a **wide range** of skill levels; skills testing for **most** occupations follows standard procedures, is competency-based and assesses **both theoretical knowledge and practical skills**; **robust protocols**, including **random audits**, ensure the credibility of certification; certificates are **valued by most employers** and **consistently improve** employment prospects and earnings; the accreditation of training providers is supervised by a **dedicated agency** in the relevant ministry; the agency is responsible for defining accreditation standards **in consultation with stakeholders**; standards are reviewed following **established protocols** and are publicized and **routinely** enforced; all training providers are required as well as offered **incentives and support** to seek and retain accreditation.

Functional Dimension 2: System Oversight				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G6: Diversifying Pathways for Skills Acquisition	Students in technical and vocational education have **few or no options** for further formal skills acquisition beyond the secondary level and the government takes **no action** to improve public perception of TVET; certificates for technical and vocational programs are **not recognized** in the NQF; qualifications certified by non-Education ministries are **not recognized** by formal programs under the Ministry of Education; recognition of prior learning receives **limited** attention; the government provides **practically no support** for further occupational and career development, or training programs for disadvantaged populations.	Students in technical and vocational education can only progress to **vocationally-oriented, non-university programs**; the government takes **limited** action to improve public perception of TVET (e.g. diversifying learning pathways); **some** certificates for technical and vocational programs are recognized in the NQF; **few** qualifications certified by non-Education ministries are recognized by formal programs under the Ministry of Education; policymakers pay **some** attention to the recognition of prior learning and provide the public with **some** information on the subject; the government offers **limited** services for further occupational and career development through **stand-alone local service centers** that are **not integrated** into a system; training programs for disadvantaged populations receive ***ad-hoc*** support.	Students in technical and vocational education can progress to **vocationally-oriented programs, including at the university level**; the government takes **some** action to improve public perception of TVET (e.g. diversifying learning pathways and improving program quality) and reviews the impact of such efforts on an ***ad-hoc*** basis; **most** certificates for technical and vocational programs are recognized in the NQF; a **large number** of qualifications certified by non-Education ministries are recognized by formal programs under the Ministry of Education, albeit **without the granting of credits**; policymakers give **some** attention to the recognition of prior learning and provide the public with **some** information on the subject; a **formal association** of stakeholders provides **dedicated** attention to adult learning issues; the government offers **limited** services for further occupational and career development, which are available through an **integrated network of centers**; training programs for disadvantaged populations receive **systematic** support and are reviewed for impact on an ***ad-hoc*** basis.	Students in technical and vocational education can progress to **academically or vocationally-oriented programs**, **including at the university level**; the government takes **coherent** action on **multiple fronts** to improve public perception of TVET (e.g. diversifying learning pathways and improving program quality and relevance, with the support of a media campaign) and **routinely** reviews and **adjusts** such efforts to maximize their impact; **most** certificates for technical and vocational programs are recognized in the NQF; a **large number** of qualifications certified by non-Education ministries are recognized and **granted credits** by formal programs under the Ministry of Education; policymakers give **sustained** attention to the recognition of prior learning and provide the public with **comprehensive** information on the subject; a **national organization** of stakeholders provides **dedicated** attention to adult learning issues; the government offers a **comprehensive menu** of services for further occupational and career development, **including online resources**, which are available through an **integrated network of centers**; training programs for disadvantaged populations receive **systematic** support with **multi-year budgets** and are **routinely** reviewed for impact and **adjusted** accordingly.

Functional Dimension 3: Service Delivery				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G7: Enabling Diversity and Excellence in Training Provision	There is **no diversity** of training provision as the system is largely comprised of **public providers** with **limited or no autonomy**; training provision is **not informed** by formal assessment, stakeholder input or performance targets.	There is **some** diversity in training provision; non-state providers operate with **limited** government incentives and **governance** over registration, licensing and quality assurance; public training is provided by institutions with **some** autonomy and informed by **some** assessment of implementation constraints, stakeholder input and basic targets.	There is **diversity** in training provision; non-state training providers, **some** registered and licensed, operate within **a range** of government incentives, **systematic** quality assurance measures and **routine** reviews of government policies toward non-state training providers; public providers, mostly governed by management boards, have **some** autonomy; training provision is informed by **formal analysis** of implementation constraints, stakeholder input and basic targets; lagging providers receive **support** and exemplary institutions are **rewarded**.	There is **broad** diversity in training provision; non-state training providers, **most** registered and licensed, operate with **comprehensive** government incentives, **systematic** quality assurance measures and **routine** review and **adjustment** of government policies toward non-state training providers; public providers, mostly governed by management boards, have **significant** autonomy; decisions about training provision are **time-bound** and informed by **formal assessment** of implementation constraints; stakeholder input and use of a **variety of measures** to incentivize performance include support, rewards and performance-based funding.

Functional Dimension 3: Service Delivery				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G8: Fostering Relevance in Public Training Programs	There are **few or no attempts** to foster relevance in public training programs through encouraging links between training institutions, industry and research institutions or through setting standards for the recruitment and training of heads and instructors in training institutions.	Relevance of public training is enhanced through **informal** links between **some** training institutions, industry and research institutions, including **input** into the design of curricula and facility standards; heads and instructors are recruited on the basis of **minimum academic standards** and have **limited** opportunities for professional development.	Relevance of public training is enhanced through **formal** links between **some** training institutions, industry and research institutions, leading to collaboration in **several** areas including but not limited to the design of curricula and facility standards; heads and instructors are recruited on the basis of **minimum academic and professional standards** and have **regular** access to opportunities for professional development.	Relevance of public training is enhanced through **formal** links between **most** training institutions, industry and research institutions, leading to **significant** collaboration in a **wide range** of areas; heads and instructors are recruited on the basis of **minimum academic and professional standards** and have **regular** access to **diverse** opportunities for professional development, including **industry attachments** for instructors.

Functional Dimension 3: Service Delivery				
Policy Goal	**Level of Development**			
	Latent	**Emerging**	**Established**	**Advanced**
G9: Enhancing Evidence-based Accountability for Results	There are **no specific** data collection and reporting requirements, but training providers maintain their **own databases;** the government **does not conduct or sponsor** skills-related surveys or impact evaluations and **rarely** uses data to monitor and improve system performance.	Training providers collect and report **administrative** data and there are **significant** gaps in reporting by non-state providers; **some** public providers issue annual reports and the government **occasionally** sponsors or conducts skills-related surveys; the government **does not consolidate data** in a system-wide database and uses **mostly administrative data** to monitor and improve system performance; the government publishes information on graduate labor market outcomes for **some** training programs.	Training providers collect and report **administrative and other** data (e.g., job placement statistics, earnings of graduates) and there are **some** gaps in reporting by non-state providers; **most** public providers issue internal annual reports and the government **routinely** sponsors skills-related surveys; the government consolidates data in a **system-wide database** and uses **administrative data** and information from **surveys** to monitor and improve system performance; the government publishes information on graduate labor market outcomes for **numerous** training programs.	Training providers collect and report **administrative and other** data (e.g., job placement statistics, earnings of graduates) and there are **few** gaps in reporting by non-state providers; **most** public providers issue **publicly available** annual reports and the government **routinely** sponsors or conducts skills-related surveys and impact evaluations; the government consolidates data in a **system-wide, up to date database** and uses **administrative data**, information from **surveys and impact evaluations** to monitor and improve system performance; the government publishes information on graduate labor market outcomes for **most** training programs **online**.

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Annex 5: SABER-WfD Scores

			Policy Goal			Policy Action			Topic		
	2000	2010		2000	2010		2000	2010		2000	2010
Dimension 1	2.6	3.1	G1	2.5	3.5	Provide sustained advocacy for WfD at the top leadership level	2.5	3.5	G1_T1	2.0	3.0
									G1_T2	3.0	4.0
			G2	3.0	3.0	Establish clarity on the demand for skills and areas of critical constraint	3.0	3.0	G2_T1	3.0	3.0
									G2_T2	3.0	3.0
						Engage employers in setting WfD priorities and in enhancing skills-upgrading for workers	3.0	3.0	G2_T3	3.0	3.0
									G2_T4	4.0	4.0
									G2_T5	2.0	2.0
			G3	2.3	2.7	Formalize key WfD roles for coordinated action on strategic priorities	2.3	2.7	G3_T1	2.0	2.0
									G3_T2	2.0	2.0
									G3_T3	3.0	4.0
Dimension 2	2.2	2.9	G4	1.6	2.3	Provide stable funding for effective programs in initial, continuing and targeted vocational education and training	1.7	2.0	G4_T1	info	info
									G4_T2	2.0	2.0
									G4_T3	2.0	2.0
									G4_T4	1.0	2.0
						Monitor and enhance equity in funding for training	1.3	2.0	G4_T5_IVET	2.0	2.0
									G4_T5_CVET	1.0	2.0
									G4_T5_ALMP	1.0	2.0
						Facilitate sustained partnerships between training institutions and employers	2.0	4.0	G4_T6	2.0	4.0
			G5	2.6	3.4	Broaden the scope of competency standards as a basis for developing qualifications frameworks	2.5	4.0	G5_T1	2.0	4.0
									G5_T2	3.0	4.0
						Establish protocols for assuring the credibility of skills testing and certification	2.7	3.3	G5_T3	2.0	3.0
									G5_T4	2.0	3.0
									G5_T5	4.0	4.0
						Develop and enforce accreditation standards for maintaining the quality of training provision	2.7	3.0	G5_T6	info	info
									G5_T7	3.0	3.0
									G5_T8	3.0	4.0
									G5_T9	2.0	2.0
			G6	2.5	3.0	Promote educational progression and permeability through multiple pathways, including for TVET students	2.5	3.0	G6_T1	3.0	3.0
									G6_T2	2.0	3.0
						Strengthen the system for skills certification and recognition	2.5	3.0	G6_T3	3.0	3.0
									G6_T4	2.0	3.0
						Enhance support for skills acquisition by workers, job-seekers and the disadvantaged	2.5	3.0	G6_T5	2.0	3.0
									G6_T6	3.0	3.0
Dimension 3	2.0	2.7	G7	2.0	2.5	Encourage and regulate non-state provision of training	2.6	2.9	G7_T1	4.0	4.0
									G7_T2	2.0	2.5
									G7_T3	3.0	3.0
									G7_T4	1.5	2.0
						Combine incentives and autonomy in the management of public training institutions	1.3	2.0	G7_T5	1.0	1.8
									G7_T6	1.1	1.6
									G7_T7	1.7	2.4
			G8	2.0	2.8	Integrate industry and expert input into the design and delivery of public training programs	2.0	2.9	G8_T1	2.0	2.8
									G8_T2	3.0	4.0
									G8_T3	1.9	2.0
									G8_T4	1.0	2.6
						Recruit and support administrators and instructors for enhancing the market-relevance of public training programs	2.1	2.7	G8_T5	2.3	3.0
									G8_T6	2.0	2.4
			G9	1.9	2.9	Expand the availability and use of policy-relevant data for focusing providers' attention on training outcomes, efficiency and innovation	1.9	2.9	G9_T1	2.3	3.0
									G9_T2	1.5	3.4
									G9_T3	1.9	2.2

Annex 6: Validation Workshop

On February 27, 2013 a workshop was held for the purposes of validating the content of the SABER-WfD data collection instrument. The workshop was attended by 27 individuals representing government ministries and agencies, education and training providers, and civil society organizations. The workshop was convened by Ximena Del Carpio, World Bank task team leader for the SABER-WfD study and led by Drs. Kee Cheok Cheong, Principal Investigator, and Kiong Hock Lee of the World Bank's Human Development Network with support from Drs. Kuppusamy Singaravelloo, Hwok-Aun Lee and Abdillah Noh, the researchers who conducted the data collection. The Institute of Strategic and International Studies hosted the event.

During the workshop, the results and the data on which they are based were systematically presented and discussed. For each Policy Goal, workshop participants were asked if the scores reflected their understanding of the state of policies and institutions for workforce development. If not, the data on which the scores are based was examined for validity and completeness by the group, and suggestions were made for augmenting or revising the data. After the workshop, the research team examined all suggestions and, on the basis of further research, updated the data collection instrument as appropriate.

A list of workshop participants is below.

Workshop Participants

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Annex 7: Authorship and Acknowledgements

This report is a product of a collaborative effort between a team led by Dr. Kee Cheok Cheong and comprising Drs. Kuppusamy Singaravelloo and Hwok-Aun Lee from the Faculty of Economics and Administration, University of Malaya, and Dr. Abdillah Noh from the Tun Abdul Razak School of Government, Universiti Tun Abdul Razak; and a World Bank team including Jee-Peng Tan, Kiong Hock Lee, Ryan Flynn and Joy Yoo-Jeung Nam, all members of the SABER-WfD team in the Education Department of the World Bank's Human Development Network, as well as Ximena del Carpio, the task team leader for a broader study entitled Developing Skills for Innovation and a High Income Economy in Malaysia, into which the present study feeds. Dr. Singaravelloo, Dr. Lee and Dr. Abdillah collected the data using the SABER-WfD data collection instrument while Dr. Cheong prepared the report. The Bank SABER-WfD team scored the data, designed the template for report writing, prepared the sections and annexes related to the SABER-WfD methodology, and provided the Malaysian team with technical support throughout the process of data collection and analysis, and substantive comments and material during report writing.

The research team acknowledges the support of all who have contributed to the report and its findings, including informants, survey respondents, participants at various consultation workshops, as well as other members of the SABER-WfD team at the World Bank: Rita Costa, Viviana Gomez, Rijak Grover, Brent Parton and Alexandria Valerio. Special thanks are due to the Institute for Strategic and International Studies (ISIS) for hosting the validation workshop. The research team gratefully acknowledges the generous financial support of the Government of the United Kingdom through its Department of International Development's Partnership for Education Development with the World Bank which makes it possible for HDNED's SABER-WfD team to provide technical support to the principal investigator in the form of standardized tools for and guidance on data collection, analysis and reporting. The team also acknowledges funding from the Government of Malaysia which defrayed the bulk of the in-country costs of data collection, analysis and report writing.

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The **Systems Approach for Better Education Results (SABER)** initiative produces comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems. SABER evaluates the quality of education policies against evidence-based global standards, using new diagnostic tools and detailed policy data. The SABER country reports give all parties with a stake in educational results—from administrators, teachers, and parents to policymakers and business people—an accessible, objective snapshot showing how well the policies of their country's education system are oriented toward ensuring that all children and youth learn.

This report focuses specifically on policies in the area of Workforce Development.

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