Skills Development in the 21st Century: Malaysia Experience

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MINISTRY OF HUMAN RESOURCE
Content

- Economic Development Context
- Skills Workers
  - Past and Future
  - Future Demand
  - Future Supply
- Issues and Challenges
- Conclusion
Planning horizon towards 2020

Year:
- '56
- '60
- '65
- '70
- '75
- '80
- '85
- '90
- '95
- '00
- '05
- '10
- '15
- '20

DE (RM bil):
- 1.0
- 3.1
- 4.2
- 10
- 25
- 46
- 35
- 55
- 99
- 170
- 230
- 230

Note: OPP – Outline Perspective Plan
DE – Development Expenditure

Vision 2020, 1991-2020

High Income & Advanced Economy

New Economic Model

National Mission
Transformed from an agrarian/resource based into a manufacturing & services-based economy

1970: US$15.8bn
- Services, 39%
- Agriculture, 26%
- Mining, 18%
- Manufacturing, 12%
- Construction, 2%

2010: US$237.8bn
- Services, 56%
- Mining, 8%
- Manufacturing, 28%
- Construction, 3%
- Agriculture, 7%

GNI per Capita
- USD400

GDP increased by 11 times GNI per Capita by 20 times

GNI per Capita
- USD8,256 (PPP US$14,000)
Fueled by real GDP growth ..

Averaging 6.3%

Advanced economies

US$2 to US$15 (per barrel)

US$15 to US$40 (per barrel)

East Asian Financial Crisis 97/98

ICT bubble burst ‘00/’01

Global Financial Crisis & Recession 08/09

6.3% growth
To achieve high-income economy by 2020, Malaysia’s GNI must grow by at least 6% per annum . . .

Moving towards high income economy ..

- GNI: USD587bn
  - GNI per capita: USD18,500

GDP: USD390-430 bn
- GNI per Capita: ~12,200-13,500

Real growth rate of 6% p.a. over next 10 years

Historical real growth rate of 4-5% p.a. over next 10 years

2010
- GNI: USD230bn
  - GNI per Capita: USD8,256 (PPP US$14,000)

2020
**Intervention:** Up-skilling of workforce to ensure quality flow and stock to support economic growth and industries demand

**Flow**
New entry to workforce

*Meet industry demand*

- **Bridging Programme**/Finishing School
- Output from Education Institutions

**Stock**
Existing Workforce

- 11.9 mil
  - Skilled: 28%
  - Semi-Skilled: 61%
  - Low skilled: 11%

- 33% (2015)

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**Intervention:** Up-skilling of workforce to ensure quality flow and stock to support economic growth and industries demand
Intervention:
Comprehensive human capital framework planned in 10MP, addressing entire education and professional cycle, seamless co-ordination and implementation.

Integrated Talent Development

Ages
- Early childhood
- Preschool
- Basic education
- Tertiary
- Professional working life
- Retirees/Second career

Themes
- Ensuring every child succeeds
- Holding schools accountable for outcomes
- Investing in great leaders for schools
- Attracting and developing the best teachers
- Mainstreaming and broadening TEVT
- Enhancing the competency of tertiary graduates
- Accelerating labour reform
- Attracting & retaining top talent
- Upgrading existing talent pool

1. Revamping education system to significantly raise student outcomes
2. Raising skills to increase employability
3. Reforming labour market to transform Malaysia into a high-income nation
Human Capital Development Planning framework

**Delivery System**
- Education
- Training

**Education:**
- Early childhood
- Preschool
- Basic education

**Tertiary:**
- University
- Colleges
- Polytechnics
- TEVT

**Labour Supply**

**Labour Demand**

**Labour Market Operation**

1. Unemployment
2. Competitiveness
3. Wage Flexibility
4. Critical Skills
5. Manpower requirements
6. Labour Mobility

**Labour Force**

**Issues**

- Prices of Labour + Capital
- Industrial Incentives
- Labour Legislation
- Fiscal & Monetary Policy
- Exchange Rate

**Elasticity of employment and output by economic sector**

**Economic Growth by Sector**

**Factor Intensity**

**Population growth**

**Immigration**

- Cohort component method to estimate population

Source: Human Resource Development Planning in Malaysia: Method and Analysis, EPU, 1994
Human Capital Development planning covers both demand and supply of labour

1) **Manpower Requirement Approach** – measure elasticity of employment-output to provide employment estimates in supporting targeted economic development

2) **Labour Market Approach** - analyse labour market indicators, e.g. labour turn over, wages, vacancies and productivity

3) **Human resource modelling (HRD-CGE)** - integrated system to prepare long/medium term scenarios for employment forecast by industry and occupation
**IMPROVEMENT OF WORKFORCE QUALITY**

**Supply and development of human capital**
- Ensure strong pipeline of relevant workforce into the labor market
- Up-skill existing workforce

**Labor market efficiency**
- Improve effectiveness of current wage system
- Put in place policies to effectively manage alternative sources of labor (i.e., expats, foreign labor, women)
- Facilitate matching of supply vs. demand

**Sector-driven demand**
- Identify key growth sectors for Malaysia either through upgrading within existing sectors or promoting new sources of growth
- Drive further investments in key growth sectors identified
Development Planning Machinery

Top-down & bottom-up approach...

- **PARLIAMENT**
- **Cabinet Ministers**
- **National Development Planning Committee**
- **Mission Cluster Groups (MCGs)**
- **Economic Planning Unit**
- **Private Sector**
- **Federal Ministries**
- **Federal Agencies**
- **State Governments**

**Circulars**

- **Draft**
- **Policy**
- **Proposal**
- **General Framework**
Transformation Towards High Income Economy

1. Government’s Role in Business
2. Public Finance Reform
3. Human Capital Development
4. International Standards & Liberalisation
5. Public Service Delivery
6. Narrowing Disparities/ Bumiputera SMEs

National Key Result Areas (NKRAs)
1. Reducing Crime
2. Fighting Corruption
3. Improving Student Outcomes
4. Raising Living Standards of Low-Income Households
5. Improving Rural Basic Infrastructure
6. Improving Urban Public Transport
7. Dealing With The Rising Cost of Living

Strategic reform initiatives (SRIs)
1. Government’s Role in Business
2. Public Finance Reform
3. Human Capital Development
4. International Standards & Liberalisation
5. Public Service Delivery
6. Narrowing Disparities/ Bumiputera SMEs

10th & 11th Malaysia Plan
Creating the environment for unleashing economic growth (including 12 NKEAs)

Moving towards inclusive socio-economic development

10MP Strategic Thrusts...
structure transformation towards high income economy

Building an environment that enhances quality of life

Developing & retaining a first-world talent base

Transforming government to transform Malaysia
Content

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- **Skills Workers**
  - Past and Future
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Malaysia Skills Training Evolution

Access & quality: Skills Institutions
- ILP & IKBN (1964)
- GiatMARA (1986)
- Community College (2000)
- IKM (1968)
- Polytechnics (1969)
- GiatMARA (1986)
- Community College (2000)

Funding
- Human Resources Development Act - HRDF (1992)

Governance
- Establishment of MLVK (1989)
Access & quality

- Establishment of skills training institute started as early in 1906 by Public Works Dept. but noticeable wave in 1960s
- Currently more than 1,000 institutions offering Skills Training from federal ministries, state skills centre and private providers.
...the Govt. playing an active role

~1,000 TEVT institutes, 
45% of which are public sector institutes¹

230,000 TEVT students 
enrolled per annum, with 70% in 
public sector institutes

8 Federal Ministries/ agencies
own, fund and operate the public sector institutes

2 very distinct agencies 
regulate the sector 
(i.e., Department of Skills Development 
and Malaysian Qualifications Agency)

At least RM1.3Bn Govt. funding 
allocated in 2010 to operate the public institutes (excluding student loans²)

1. Excludes state institutes  2. Students loans in 2010: 0.5Bn to student in public and 0.1Bn to students in private
Our national economic growth demands an increasingly higher number of TEVT graduates going forward.

Economic growth demands additional
~1.3Mn quality TEVT workers

Workers by 2020 (in '000)

Highest demand expected in Tourism, Retail and Greater KL

Assumptions:
1. Total to be delivered by TEVT system: graduates required for NKEA (1,330), with 15 to 20% moving to further education + graduates to be delivered for non NKEA sectors based on 2010 data (350,000) and excluding 350,000 diplomas to be produced by universities (public, private and KTAR. – source MOHE).
2. Output from Vocational Colleges, Ministry of Education (5% from student enrolment).
3. Optimization: additional capacity and redeployment to diplomas at Polytechnics (target: 356,000 diplomas by 2020), planned new institutes at MOHR and MOYS and hypothesis of potential optimization of utilization rate to 100% vs. 80-90% on average today (excl. Polytechnics).
4. Total graduates per year: 25 to 30K, or 50K capacity seats based on average of 2 enrolment years per graduate.

Source: Data request from TEVT agencies, Tracer Studies at MOHR, MOYS and Polytechnics, NKEA forecasts, BCG analysis.
Governance

- Governance of Skills training delivery under the purview of **4 main Acts**.

1. Education Act 1996
   - Ministry of Education

2. The National Skills Development Act 2006 (NASDA)
   - Department of Skills Development

   - Ministry of Higher Education

4. Private Higher Educational Institution Act 1996
   - Ministry of Higher Education
Opportunities for TEVT rationalization

1. **Employer demand**
   - Demand for skilled workforce expected to rise. About 60% of new jobs created under NKEA initiatives are skilled, of which 1/3 requires TEVT qualification. In addition, 20% will be semi-skilled, which also requires TEVT qualification.
   - Hence, need to prioritise training of TEVT graduates to fulfill most pressing sectors

2. **Students**
   - Better definition of educational pathway to support students' intellectual advancement and provide better alignment with industry needs
   - Professional pathway also need to support students' career advancement with better promotion opportunities
   - Repositioning of TEVT as a viable alternative to traditional education is crucial

3. **TEVT providers**
   - Performance and quality of TEVT can be further enhanced by utilising demand side funding
   - KPIs and rating system need to be strengthened to enforce quality of providers
   - Enhancement of business and operating models necessary to support rationalisation

4. **TEVT offerings**
   - Opportunity to rationalise and consolidate TEVT course offerings to improve delivery, quality and cost efficiency as well as better match industry requirements

5. **Governance**
   - Optimise coordination between Ministries, agencies and institutes
   - Need to increase cooperation and linkages with industry players, improve employability and demand of TEVT graduates
FUTURE DEMAND
## NKEA Overview

### Incremental GNI (2020) RM billions

<table>
<thead>
<tr>
<th>Industry</th>
<th>GNI (RM billions)</th>
</tr>
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<tbody>
<tr>
<td>Oil, Gas &amp; Energy</td>
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<tr>
<td>Palm Oil &amp; Rubber</td>
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<tr>
<td>Financial Services</td>
<td>121</td>
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<tr>
<td>Wholesale &amp; Retail</td>
<td>108</td>
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<tr>
<td>Tourism</td>
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<td>Business Services</td>
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<td>E&amp;E</td>
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<td>CCI</td>
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<td>Healthcare</td>
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<td>Education</td>
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<td>Agriculture</td>
<td>29</td>
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<tr>
<td>Greater KL/KV 1</td>
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</table>

1 Other NKEA GNI impact that directly contributes to Greater KL/KV’s GNI
Demand → 3.3 million jobs created from the ETP by 2020

- 49% of jobs are Business Opportunities
- 2/3 of Jobs reside in 4 NKEAS (Tourism, Education, GKL / KV, Wholesale Retail)
- There are non-NKEA impacts particularly in Greater KL / Business Services and support services for other NKEAs

Nos. in ‘000

<table>
<thead>
<tr>
<th>Year</th>
<th>EPP</th>
<th>Biz Opps</th>
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<tbody>
<tr>
<td>2011</td>
<td>633</td>
<td>455</td>
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<tr>
<td>2012</td>
<td>345</td>
<td>557</td>
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<tr>
<td>2013</td>
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<td>2014</td>
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<td>2015</td>
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<td>2016</td>
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<td>2018</td>
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<td>2019</td>
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<tr>
<td>2020</td>
<td>2,569</td>
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</table>
3.3 million jobs – by NKEA (EPPs and BOs)
NKEA Job Creation for year 2011 & 2012 (Announced Projects)

- Job Announced: 313,271 (Audited)
- Created 2011: 25,519
- Planned 2012: 61,211
61% of jobs are skilled, 20% semi skilled and 19% are unskilled

2020 Additional Labour Requirements by Education Level
Million

### 3.3 million additional jobs

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Low Skilled</th>
<th>Vocational / Certificate</th>
<th>Diploma</th>
<th>Degree</th>
<th>Masters / Professional</th>
<th>PhD</th>
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<td>679,977</td>
<td>997,013</td>
<td>270,635</td>
<td>23,305</td>
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</table>

Percentage of total additional jobs:
- Low Skilled: 19%
- Vocational / Certificate: 20%
- Diploma: 21%
- Degree: 31%
- Masters / Professional: 8%
- PhD: 1%

SOURCE: Post Labs Qualifications Reports
FUTURE SUPPLY
## Current Supply Pipeline

<table>
<thead>
<tr>
<th>TAHAP PENGAJIAN</th>
<th>2011</th>
<th>2012</th>
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<th>2014</th>
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<td><strong>1 DIPLOMA DAN KE ATAS</strong></td>
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<tr>
<td>IPTA/ILKA</td>
<td>131,771</td>
<td>140,279</td>
<td>147,946</td>
<td>158,250</td>
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<tr>
<td>Universiti</td>
<td>103,450</td>
<td>106,936</td>
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<td>Politeknik</td>
<td>23,859</td>
<td>26,550</td>
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Current Supply Pipeline

Estimate **300,000 local graduates every year** .... Translating to additional workforce of 3 million by 2020

0..3 mil gap to be addressed through a series of other initiatives

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<td></td>
</tr>
<tr>
<td>KEMENT. PERTANIAN (NATC)</td>
<td>16</td>
<td>15</td>
<td>59</td>
<td>73</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Inst. Perguruan M’sia</td>
<td>422</td>
<td>371</td>
<td>556</td>
<td>887</td>
<td>975</td>
<td></td>
</tr>
<tr>
<td>IPTS</td>
<td>1,041</td>
<td>1,287</td>
<td>3,112</td>
<td>3,112</td>
<td>3,112</td>
<td></td>
</tr>
<tr>
<td>Universiti</td>
<td>69,645</td>
<td>73,087</td>
<td>76,707</td>
<td>80,515</td>
<td>84,526</td>
<td></td>
</tr>
<tr>
<td>Politeknik</td>
<td>201,416</td>
<td>213,366</td>
<td>224,653</td>
<td>238,765</td>
<td>249,726</td>
<td></td>
</tr>
<tr>
<td>Jumlah Output Diploma ke atas</td>
<td>201,416</td>
<td>213,366</td>
<td>224,653</td>
<td>238,765</td>
<td>249,726</td>
<td></td>
</tr>
</tbody>
</table>

| SJIL |       |      |      |      |      |      |
| IPTA/ILKA |       |      |      |      |      |      |
| Universiti | 49,274 | 61,657 | 61,063 | 61,807 | 63,134 |
| Politeknik | 420 | 505 | 590 | 675 | 755 |
| Kolej Komuniti | 9,451 | 3,500 | 100 | 0 | 0 |
| IKM/KKTM | 18,680 | 21,210 | 22,080 | 22,080 | 22,080 |
| GIATMARA | 6,254 | 17,478 | 17,946 | 17,946 | 17,946 |
| ILP | 2,199 | 5,926 | 6,533 | 6,580 | 6,632 |
| CIAST | 3,997 | 3,497 | 3,595 | 7,255 | 7,980 |
| KEMENT. PERTANIAN (NATC) | 733 | 716 | 750 | 900 | 1,355 |
| Inst. Latihan KEMAS | 2,250 | 1,400 | 0 | 0 | 0 |
| IPTS | 69,645 | 73,087 | 76,707 | 80,515 | 84,526 |
| Jumlah Output Sijil | 71,033 | 84,722 | 85,512 | 87,723 | 90,605 |
| JUMLAH KESELURUHAN | 272,449 | 298,088 | 310,165 | 326,488 | 340,331 |

2.7 million semi-skilled & skilled jobs

Low Skilled | Vocational/Certificate | Diploma | Degree | Masters/Professional | PhD

<table>
<thead>
<tr>
<th>#Jobs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>632,976</td>
<td>647,086</td>
</tr>
<tr>
<td>23,305</td>
<td>23,305</td>
</tr>
</tbody>
</table>

Jumlah Output Sijil | 71,033 | 84,722 | 85,512 | 87,723 | 90,605 |
Addressing the Jobs and Skills Gap

*Focus urgently to address quality (trainers, curriculum, assessment, facilities upgrades, research, industry linkages) ....*

*Rather than investing in infrastructure to increase quantity*

**QUALITY**

- Improve matching of supply and demand
  - Competencies & skills between supply (institutional providers) and demand (strategic growth, trends and industries requirements)
- Up-skill current unskilled, low and semi-skilled workforce
- Increase quality of Instructors, lecturers, curriculum and assessment
- Increase research and facilities upgrades

**QUANTITY**

- Improve women’s labour participation rate:
  - Upskill/reskill women to re-enter workforce
  - Encourage flexible work arrangement
- Increase retirement age (Minimum Retirement Age bill)
- Attract Malaysian Diaspora back
## Addressing Quantity

<table>
<thead>
<tr>
<th>Job Supply</th>
<th>Assumptions</th>
<th>Supply #s ('000)</th>
<th>Who</th>
<th>Action Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman Labour Participation Rate</td>
<td># of Woman outside the Labour Market '000 (2009) % of Woman re-enter the Labour Market</td>
<td>5000, 5% 250</td>
<td>Min of Women, MoHR</td>
<td>1. Provide affordable and accessible childcare centers 2. Implement training programmes to reskill and upskill to re-enter workforce</td>
</tr>
<tr>
<td>Extension of Retirement Age</td>
<td>% of current workforce</td>
<td>2% 200</td>
<td>MoHR</td>
<td>Table Retirement Age Bill in Parliament by end 2012. Enforce in 2014</td>
</tr>
<tr>
<td>Return of Malaysia Diaspora</td>
<td># of Malaysian Diaspora '000 % of Diaspora that return (NET Gain)</td>
<td>1,400, 1% 14</td>
<td>TalentCorp</td>
<td>Implement and intensify Brain Gain programme and promotion</td>
</tr>
</tbody>
</table>

| TOTAL                         | 464                                                                                   |
| Gap Addressed                 | 464                                                                                   |

Note: Based on conservative assumptions
ISSUES AND CHALLENGES
In the new strategy to transform Malaysia into a high income economy, human capital development is a critical component to be improved.

Malaysia has done much (and better than many of its neighbours) to improve HCD and equalize opportunities for the average citizen.

But to get to the next level, it must address:

- Gaps in some skills critical to boosting productivity
- The needs of those:
  - Disadvantaged groups still being left behind and
  - With an inadequate safety net against risks of unforeseen income shocks
The Most Critical Factors Identified For Development Under Tenth Malaysian Plan

- Stagnating productivity growth
- Absence of private investment
- Low value-added industries
- Difficulties of doing business
- Low-skilled jobs and low wages
- Insufficient innovation and creativity
- Lack of appropriately skilled human capital
- Low-skilled jobs and low wages
.. needs to close the gap to achieve the characteristic of a first-world talent base

<table>
<thead>
<tr>
<th>Country</th>
<th>Labour productivity</th>
<th>Skilled labour force</th>
<th>Labour force with tertiary education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ PPP(^1) '000 per employee, 2009</td>
<td>Percentage, 2008</td>
<td>Percentage, 2007</td>
</tr>
<tr>
<td>Malaysia (2010)</td>
<td>26.6</td>
<td>28.7</td>
<td>24.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>60.8</td>
<td>51.0</td>
<td>35.9</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>52.9</td>
<td>29.3</td>
<td>35.0</td>
</tr>
<tr>
<td>Finland</td>
<td>66.5</td>
<td>43.8</td>
<td>34.8</td>
</tr>
<tr>
<td>United States</td>
<td>92.9</td>
<td>36.3</td>
<td>34.1</td>
</tr>
<tr>
<td>Australia</td>
<td>71.7</td>
<td>42.9</td>
<td>32.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>67.2</td>
<td>42.5</td>
<td>31.9</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>78.6</td>
<td>36.0</td>
<td>25.6</td>
</tr>
</tbody>
</table>

OECD average = 64.8
OECD average = 37.6
OECD average = 27.4

1 Adjusted to Purchasing Power Parity
2 Management, professional and other skilled occupations
3 Tertiary education is the educational level following the completion of secondary education, i.e. after 11-12 years of basic schooling. Colleges, universities, institutes of technology and polytechnics are the main institutions that provide tertiary education

Content

- Economic Development Context
- Skills Workers
  - Past and Future
  - Future Demand
  - Future Supply
- Issues and Challenges
- Conclusion
**Core Principles**

*Performance-based:* institutes accountable for performance

*Demand-driven:* by students and economic needs

*Industry-led:* Collaborative development of TEVT sectors

*Clear governance:* Better monitoring of performance

**TEVT Governance**
- Better governance of TEVT sector
- Facilitate performance-based mechanism for TEVT sector
- Registration of all TEVT institutions

**Industry**
- Continuous input into curriculum, content and TEVT framework
- Strong collaboration with TEVT providers
- Increased employer participation in student-industrial training programs
- Option: ownership, management and operation of some TEVT institutes

**Providers**
- **Institutes:**
  - High graduate employability and instructor quality
  - Efficient budget management & cost per student
  - Strong links with industry needs in delivery of quality and number of graduates

- **Ministries:**
  - Main drivers of institutes' performance

**Students**
- Able to make fully-informed decisions on choice of education pathway
- Sufficient number of TEVT graduates to meet economic demand
- Highly employable graduates trained with relevant technical and employability skills
THANK YOU
Human Capital Development Planning framework

DELIVERY SYSTEM
- Education
- Training

Education:
- Early childhood
- Preschool
- Basic education

Tertiary:
- University
- Colleges
- Polytechnics
- TEVT

LABOUR MARKET OPERATION
Issues

1. Unemployment
2. Competitiveness
3. Wage Flexibility
4. Critical Skills
5. Manpower requirements
6. Labour Mobility

Elasticity of employment and output by economic sector

Population growth
+ Immigration

Cohort component method to estimate population

Labour Supply

Labour Demand

Economic Growth by Sector

Factor Intensity

Production Technology

- Prices of Labour + Capital
- Industrial Incentives
- Labour Legislation
- Fiscal & Monetary Policy
- Exchange Rate

Source: Human Resource Development Planning in Malaysia: Method and Analysis, EPU, 1994
Human Capital Development planning covers both demand and supply of labour

**Demand forecast (Demand side)**

1. Manpower Requirement Approach
2. Labour Market Approach
3. Human resource modelling (HRD-CGE)

**Supply planning (Supply side)**

- Consist of education and training provided in line with the changes in economic and demographic structure
- HCD supply planning documentations:

---

1) **Manpower Requirement Approach** – measure elasticity of employment-output to provide employment estimates in supporting targeted economic development

2) **Labour Market Approach** - analyse labour market indicators, e.g. labour turnover, wages, vacancies and productivity

3) **Human resource modelling (HRD-CGE)** - integrated system to prepare long/medium term scenarios for employment forecast by industry and occupation
Supply and development of human capital

- Ensure strong pipeline of relevant workforce into the labor market
- Up-skill existing workforce

Labor market efficiency

- Improve effectiveness of current wage system
- Put in place policies to effectively manage alternative sources of labor (i.e., expats, foreign labor, women)
- Facilitate matching of supply vs. demand

Sector-driven demand

- Identify key growth sectors for Malaysia either through upgrading within existing sectors or promoting new sources of growth
- Drive further investments in key growth sectors identified
Development Planning Machinery

Top-down & bottom-up approach...

PARLIAMENT

Cabinet Ministers

National Development Planning Committee

Economic Council

Draft

Policy

Draft

Proposal

General Framework

Circulars

Proposal

Proposal

Circulars

Circulars

Mission Cluster Groups (MCGs)

Economic Planning Unit

Private Sector

Federal Ministries

Federal Agencies

State Governments
Transformation Towards High Income Economy

1. Government's Role in Business
2. Public Finance Reform
3. Human Capital Development
4. International Standards & Liberalisation
5. Public Service Delivery
6. Narrowing Disparities/ Bumiputera SMEs

1. Reducing Crime
2. Fighting Corruption
3. Improving Student Outcomes
4. Raising Living Standards of Low-Income Households
5. Improving Rural Basic Infrastructure
6. Improving Urban Public Transport
7. Dealing With The Rising Cost of Living

10th & 11th Malaysia Plan
Creating the environment for unleashing economic growth (including 12 NKEAs)

Moving towards inclusive socio-economic development

Developing & retaining a first-world talent base

Building an environment that enhances quality of life

Transforming government to transform Malaysia

10MP Strategic Thrusts...
structural transformation towards high income economy
Given this growth trajectory, we expect to create ~1.5Mn jobs over the 2011 to 2015 period (10MP horizon) ...

10MP projects GDP growth of 6% to achieve USD11,550 GNI/ capita by 2015...

... will create ~1.5Mn jobs

<table>
<thead>
<tr>
<th>Year</th>
<th>9th MP</th>
<th>10th MP</th>
<th>2005-2010 Job Creation</th>
<th>2011-2015 Job Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>10,893</td>
<td>11,773</td>
<td>881</td>
<td>1,452</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GNI/capita (USD)

- 7,900 +7.9% p.a.
- 11,550

<table>
<thead>
<tr>
<th>CAGR p.a</th>
<th>9MP</th>
<th>10MP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>4.2%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Employment</td>
<td>1.6%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>
Initiatives: Integrated with the New Economic Model Initiatives (SRIs)

Modernise Labour Laws
- Attracting investors
- Protection of workers
- Consolidation & streamlining labour-related laws

Labour Safety Net
- Job search
- Job relocation
- Job placement
- Up-skilling & training
- Income relief

Women’s Talent
- Women’s participation in the labour market:
  - Leverage
  - Retaining
  - Increase
- Increase women in decision making positions to a minimum of 30%

Strengthen HR Mgmt
- Establish HR Centres to assist SMEs by providing HR solutions
- Train and upskill HR capabilities to enhance workforce performance in SMEs

Labour Market Analysis
- Comprehensive labour market research & analysis
- Key tool for national manpower planning

Up skilling & Reskilling
- Upskilling/upgrading to address immediate needs of four NKEA sectors
  (OGE, E&E, Tourism, Business Services – Outsourcing)

Focus

1. Employees
   - Wages & Productivity – Consumption
   - Labour Legislation – Protection
   - Up skilling / Upgrading Workforce

2. Employers
   - Wages & Productivity - Value
   - Labour Legislation – Flexibility
   - Market Forecast
   - HR Productivity / Management
   - Up skilling / Upgrading Workforce

3. Women
   - Leveraging Women’s talent
ARTICULATIONS WITHIN TEVT SECTORS

Pathways for TEVT graduates continue up to higher educations

University

UniKL

University (MTUN)

Private Universities

Level 4 & 5 (Diploma & Advanced Diploma)

JMTI ADTEC ILP (4)

IKTBN IKBN

GMI KKT M

MOA Training Institute

Poly-technics

Level 1 to 3 (Certificate)

ILP

IKTBN IKBN

IKM

Technical & Vocational Schools

Community Colleges

MOA

State Training Institute

Private Training Institute

MOHR

MOYS

MORRD

MOE

MOHE

MOA

State

Private

15 – 20%

10 – 15%

< 5%

2-3%

< 1%

10%

30%

20%

40%

3%

40%

< 5%

20%

< 5%

10 – 15%

10 – 15%

20%

40%

< 5%

20%

20%

< 5%
Governance

- Governance of Skills training delivery under the purview of 4 main Acts.

<table>
<thead>
<tr>
<th>1</th>
<th>Education Act 1996 (Act 550) Ministry of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The main federal legislation regulating the education system in Malaysia is the Education Act 1996 (Act 550) which takes a very broad view of education that clearly encompasses all forms of training including skills, specialised, job-based and continuing training.</td>
<td></td>
</tr>
<tr>
<td>• This can be seen from subsection 35(2) of the Act which stipulates that ‘technical education’ includes the provision of:</td>
<td></td>
</tr>
<tr>
<td>a) Skills training;</td>
<td></td>
</tr>
<tr>
<td>b) Specialised training related to a specific job;</td>
<td></td>
</tr>
<tr>
<td>c) Training for the upgrading of existing skills; and</td>
<td></td>
</tr>
<tr>
<td>d) Such other technical or vocational training as may be approved by the Minister of Education.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>The National Skills Development Act (NASDA) [Act 652], Department of Skills Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The National Skills Development Act 2006 (NASDA) [Act 652], came into effect on 1st September 2006 after it was officially gazetted on 29th June 2006, with the following mandate:- “An Act to promote, through skills training, the development and improvement of a person’s abilities, which are needed for vocation; and to provide for other matters connected therewith.”</td>
<td></td>
</tr>
<tr>
<td>• The Act defines “skills training” as: “work based and industry oriented activities which aim to provide the knowledge, skills and attitude required for effective and efficient performance of a task or job, and includes refresher, further, updating and specialized job-related training.”</td>
<td></td>
</tr>
<tr>
<td>• Develop, approve and revise NOSS;</td>
<td></td>
</tr>
<tr>
<td>• Accreditation and certification of Malaysian Skills Certification System for Institutions using NOSS</td>
<td></td>
</tr>
</tbody>
</table>
| Malaysian Qualifications Agency Act
Ministry of Higher Education |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The establishment of a new entity which merges the National Accreditation Board (LAN) and the Quality Assurance Division, Ministry of Higher Education (QAD) was approved by the Government on 21 December 2005.</td>
</tr>
<tr>
<td>Malaysian Qualifications Agency (MQA), was established on 1 November 2007. MQA responsible for quality assurance of higher education for both the public and the private sectors with the coming in force of the Malaysian Qualifications Agency Act.</td>
</tr>
<tr>
<td>The main role of the MQA is 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. The MQA is responsible for monitoring and overseeing the quality assurance practices and accreditation of national higher education.</td>
</tr>
</tbody>
</table>

| Private Higher Educational Institution Act
Ministry of Higher Education |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enacted to specifically regulate private higher educational institutions in Malaysia, also adopts the same broad view of education.</td>
</tr>
<tr>
<td>The Act 555 adopts several interpretations which show its intent to treat training as a component of education, albeit higher education, in Malaysia.</td>
</tr>
</tbody>
</table>
NOSS AND MSC STATISTICS 2005 - 2011

- 1,141 NOSS Development from 2005 to 2011
- DSD aims of 5,000 NOSS by 2020


<table>
<thead>
<tr>
<th>Year</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>41,332</td>
<td>37,737</td>
<td>14,958</td>
<td>1,386</td>
<td>0</td>
<td>95,413</td>
</tr>
<tr>
<td>2006</td>
<td>39,311</td>
<td>32,863</td>
<td>8,255</td>
<td>2,133</td>
<td>0</td>
<td>82,562</td>
</tr>
<tr>
<td>2007</td>
<td>40,908</td>
<td>32,078</td>
<td>9,124</td>
<td>2,789</td>
<td>5</td>
<td>84,904</td>
</tr>
<tr>
<td>2008</td>
<td>49,091</td>
<td>40,996</td>
<td>12,084</td>
<td>2,041</td>
<td>32</td>
<td>104,244</td>
</tr>
<tr>
<td>2009</td>
<td>42,262</td>
<td>35,098</td>
<td>12,722</td>
<td>1,376</td>
<td>68</td>
<td>91,526</td>
</tr>
<tr>
<td>2010</td>
<td>50,485</td>
<td>48,254</td>
<td>20,827</td>
<td>3,330</td>
<td>126</td>
<td>123,022</td>
</tr>
<tr>
<td>2011</td>
<td>35,778</td>
<td>31,469</td>
<td>18,687</td>
<td>3,063</td>
<td>255</td>
<td>89,252</td>
</tr>
</tbody>
</table>

Total: 299,167, 258,495, 96,657, 16,118, 486, 670,923
Malaysian Skills Certification Through Accreditation of Prior Achievement (APA)

<table>
<thead>
<tr>
<th>Year</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,906</td>
<td>2,168</td>
<td>1,437</td>
<td>12</td>
<td>4</td>
<td>5,527</td>
</tr>
<tr>
<td>2006</td>
<td>753</td>
<td>752</td>
<td>648</td>
<td>65</td>
<td>2</td>
<td>2,220</td>
</tr>
<tr>
<td>2007</td>
<td>1,293</td>
<td>1,302</td>
<td>913</td>
<td>118</td>
<td>7</td>
<td>3,633</td>
</tr>
<tr>
<td>2008</td>
<td>2,156</td>
<td>2,209</td>
<td>1,966</td>
<td>168</td>
<td>8</td>
<td>6,507</td>
</tr>
<tr>
<td>2009</td>
<td>1,487</td>
<td>1,643</td>
<td>1,486</td>
<td>51</td>
<td>11</td>
<td>4,678</td>
</tr>
<tr>
<td>2010</td>
<td>2,987</td>
<td>3,236</td>
<td>5,409</td>
<td>97</td>
<td>32</td>
<td>11,761</td>
</tr>
<tr>
<td>2011</td>
<td>1,801</td>
<td>2,094</td>
<td>2,902</td>
<td>392</td>
<td>210</td>
<td>7,399</td>
</tr>
<tr>
<td>Total</td>
<td>12,383</td>
<td>13,404</td>
<td>14,761</td>
<td>903</td>
<td>274</td>
<td>41,725</td>
</tr>
</tbody>
</table>
### List of Curriculum for NDTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Sector</th>
<th>No.</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Information &amp; Communication Technology</td>
<td>17.</td>
<td>Textile &amp; Apparel</td>
</tr>
<tr>
<td>3.</td>
<td>Machinery &amp; Equipment</td>
<td>18.</td>
<td>Agriculture &amp; Agrobased</td>
</tr>
<tr>
<td>4.</td>
<td>Mechanical &amp; Electrical Service And Maintenance</td>
<td>19.</td>
<td>Resource Based</td>
</tr>
<tr>
<td>5.</td>
<td>Transportation</td>
<td>20.</td>
<td>Biotechnology</td>
</tr>
<tr>
<td>7.</td>
<td>Packaging</td>
<td>22.</td>
<td>Oil &amp; Gas</td>
</tr>
<tr>
<td>9.</td>
<td>Chemistry</td>
<td>24.</td>
<td>Integrated Logistic Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Industry</td>
</tr>
<tr>
<td>10.</td>
<td>Medical &amp; Pharmaceuticals</td>
<td>25.</td>
<td>Distributive Trade</td>
</tr>
<tr>
<td>12.</td>
<td>Souvenir &amp; Small Enterprise</td>
<td>27.</td>
<td>Care &amp; Community Services</td>
</tr>
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### Number of Participant for NDTS from 2005 to 2011

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