SKILLS ISSUES, SOURCES OF SKILLS ISSUES, AND POLICY RESPONSES IN FIVE ASEAN-MEMBER COUNTRIES

Indonesia, Malaysia, the Philippines, Thailand, and Vietnam

Catherine Ramos
The HEAD Foundation
catherine.ramos@headfoundation.org
Contents

Introduction ............................................................................................................................................... 2
Definition of skills mismatch, skills gap, and skills shortage............................................................... 3
Causes of skill issues and imbalance: conceptual tools and frameworks........................................... 4
Theories on Skills Acquisitions .............................................................................................................. 5
Socio-economic context of the Five Asian countries............................................................................ 9
Indonesia .............................................................................................................................................. 15
  Employment Scenario ......................................................................................................................... 15
  Skills Issues .................................................................................................................................... 15
  Sources of the issues .......................................................................................................................... 17
  Responses ......................................................................................................................................... 17
Malaysia ............................................................................................................................................... 19
  Employment Scenario ......................................................................................................................... 19
  Skills Issues .................................................................................................................................... 19
  Sources of the issues .......................................................................................................................... 20
  Responses ......................................................................................................................................... 20
Philippines ............................................................................................................................................ 23
  Employment Scenario ......................................................................................................................... 23
  Skills Issues .................................................................................................................................... 24
  Sources of the issues .......................................................................................................................... 26
  Responses ......................................................................................................................................... 27
Thailand ............................................................................................................................................... 31
  Employment Scenario ......................................................................................................................... 31
  Skills Issues .................................................................................................................................... 32
  Sources of the issues .......................................................................................................................... 33
  Responses ......................................................................................................................................... 33
Vietnam .................................................................................................................................................. 36
  Employment Scenario ......................................................................................................................... 36
  Skills Issues .................................................................................................................................... 36
  Sources of the issues .......................................................................................................................... 38
  Responses ......................................................................................................................................... 38
Regional Responses to the Skills Issues: Recommendations by International Organisations ......... 41
Conclusion ............................................................................................................................................... 46
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

Introduction
Education and skills are important policy levers for development transformation and sustainable socio-economic growth. The World Development Report 2013 on Jobs put it succinctly, “Jobs are channel of three critical transformations that drive development: higher productivity, rising living standards, and greater social cohesion. Productivity gains happen through jobs. Jobs provide earnings, lift people out of poverty and contribute to life satisfaction…jobs shape values and behaviour and affect the distribution of outcomes in ways that influence social cohesion.” (WB 2014 as cited in Packard & Nguyen, 2014, p. 12). But jobs require skills, and while much progress has been made in the last decades, many countries in Asia are still struggling to respond to the skill needs required for competitiveness, productivity and jobs. With right economic fundamentals, a highly educated population with the right skills is a powerful tool for economies to move from low-income to middle income, or for those who are already in the middle-income category, to avoid the middle-income trap, and move to the high-income category. Skills shortage is a pressing issue as it constrains the expansion of output in the short-term, and limits the possibility for diversification of productive economic structures in the long-term. The reasons for skills shortage could be due to inadequate quantity and/or poor quality of supply or misalignment between supply of and demand for skills. At the individual level, under-education or lack of skills can undermine wages and career prospects. Mismatch, or undersupply of skills on some areas but oversupply on others is lack of efficient use of resources and also affect the employment opportunities of graduates in oversupply areas.

Education and skills issues have been extensively studied not only by national local researchers but by international organisations. These excellent studies and well-crafted education reforms coming out of the studies were not fully translated to successful outcomes due to implementation issues. This was especially true in the Southeast Asian countries such as Malaysia, Vietnam and the Philippines. For example, Vietnam’s higher education reform in 2005 known as Fundamental and Comprehensive Reform of Higher Education Reform in Vietnam 2006-2020 also known as Higher Education Reform Agenda or HERA was faced with implementation issues due to a lack of clarity on the actual steps to implement the goals of reform (Tran, 2012). It was the same case with the Philippines where several highly-qualified and well-funded team of researchers have been commissioned to undertake sector reviews and to come up with solutions to the education and skills issues. Sadly, the education reforms which have been instituted in the last 20 years have limited effects due to partial implementation of the decentralised governance of basic education, and the inadequate policy formulation in learning and pedagogy (Bautista, Bernardo, & Ocampo, 2008). The same thing could be said in Malaysia in terms of the gap between policy intent and the insufficient capacity at all levels of implementation (UNESCO, 2013).

With already many existing studies on skills and education issues, this paper aims for a more modest objective of providing a succinct presentation of the studies in the area of skills issues. Specifically, the paper aims to provide a summary
discussion about skills issues in five countries in Southeast Asia (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam), the sources and explanations for the skills issues, and the priorities and policy initiatives of the countries to address the issues. The information presented here is intended to guide THF in its research and advocacy agenda and more broadly to contribute to a better understanding of the issues.

Structure of the paper
The paper has two parts. Part 1 starts with definition of the skills issues namely, skills shortage, skills gap, and skills mismatch, followed by an overview of theoretical underpinnings of skills acquisition, the causes of skills issues and a summary of the studies and recommendations on skills by the international developmental organisations such as ILO, ADB, European Commission and World Bank. Part 2 is a discussion on the specific skills issues for each country (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam), the sources of skills issues, and the country responses to address the issues.

PART 1. Definition, Theories, and Studies on Skills Issues

Definition of skills mismatch, skills gap, and skills shortage

What is skills mismatch
Mismatch happens when demand for and supply of skills are not aligned or in sync in either direction resulting to oversupply or undersupply (Cappelli, 2015). There are two types of over-education mismatch namely vertical job mismatch and horizontal job mismatch. Vertical job mismatch occurs when individuals invest in post-school qualifications at a level substantially above what is required at the workplace. Horizontal job mismatch happens when certain fields of education (e.g. management, arts) are in surplus, when the labour market is experiencing shortage of engineers, technology, science graduates (APEC, 2014).

What is skills shortage?
Skills shortage happens when employers are unable to fill in or have difficulty in filling vacancies for an occupation (e.g., engineering, nursing) at current levels of remuneration and conditions of employment, and in reasonably accessible locations (Australian Department of Education, Employment and Workplace Relations, 2012 as cited in APEC, 2014). Sometimes skills shortage is used interchangeably with talent shortage as the latter refers to managerial and professional occupations, and leadership positions.

Skill shortage, a type of mismatch, continues to pose challenges to many middle and low income Asian economies. Poor quality provision of education and training or/and lack of skills relevance resulting to skills shortage could be attributed to the following factors:
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

(a) limited involvement of social partners or employers to ensure provision of relevant training and poor quality and relevance of training due to weak quality assurance,
(b) lack of qualified trainors, outdated curriculum, pedagogy, and training materials, and limited labour market information, and
(c) weak coordination in the system to link skills supply and demand

What is skills gap?
Skills gap refers to the educational system failure to provide students the basic skills that are required to start being workers for a particular occupation (Cappelli, 2015). Thus, skills gap occurs when there is an inadequate supply of skills or attributes within a given occupation. Gaps can be assessed in various ways, for example, in relation to employers’ (and employees’) expectations (demand side), and based on gaps in relation to an international average or an average in higher-income countries (supply-side approach, standardised international testing) (di Gropello, Kruse, & Tandon, 2011a).

Together, skill gaps, skill shortage and skills mismatch, are collectively referred to in this document as skills issues.

Causes of skill issues and imbalance: conceptual tools and frameworks
Skills here refers to technical and advanced skills as compared with foundational skills that are acquired through basic education. Definition of skills gaps/shortages will therefore be different for these two sets of skills. Foundational skills such as literacy are considered necessary for basic living and the well-being of the society thereby meriting public financing as far as possible. Gaps in foundational skills are mainly due to government failure to ensure that all citizens have access to adequate nutrition, basic health and education. On the other hand, gaps in technical and advanced skills are defined relative to the supply and demand, and can be result of both government and market failures such as costs of job search and limited information for both workers and employers (see Table 1).

Table 1. Range of failures explaining the gaps in technical and advanced cognitive and behavioural skills

<table>
<thead>
<tr>
<th>Failure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour markets</td>
<td>Imperfect competition for worker’s skills; costly search and limited information for both workers and firms</td>
</tr>
<tr>
<td>Credit markets</td>
<td>Inability of individuals to access adequate credit to fund skill acquisition; inability of firms to access adequate credit to fund training</td>
</tr>
<tr>
<td>Decision making</td>
<td>Missing information on market returns or the quality of education and training providers; high discounting of the future</td>
</tr>
<tr>
<td>Coordination</td>
<td>Employer use of low-skilled technologies because high-skill workers are not available; worker failure to invest in skills because jobs are not available</td>
</tr>
<tr>
<td>Government</td>
<td>Weak policy making process; inappropriate institutional arrangements; limited information</td>
</tr>
</tbody>
</table>

The causes of skills issues or imbalance are multifaceted as it requires strategic coordination and mechanisms to ensure a reasonable balance of skill supply and demand at a certain point in time and into the future given the national economic context, global competition, and rapid technological changes. Mechanisms to ensure skills balance include appropriate economic incentives and information for individuals to invest in relevant training and education, close coordination among education and training institutions, employers, unions and government to meet the industry’s skills demands as well as fully utilising the skills of the current workforce (Iredale, Toner, Turpin, & Fernandez-Esquinas, 2014).

**Theories on Skills Acquisitions**
Different theories on skills acquisition are available to explain the causes of skills mismatch. Tullao et al (2014) have provided a summary descriptions of these theories that include human capital theory, job competition, signalling and screening, technological theory, career mobility theory, job search theory, and job assignment theory. These theories can be used to examine and analyse empirically the causes and nature of skills mismatch of a particular economy. These theories together with the range of market failures and government failures indicated in table 1 are useful tools for understanding the skills issues and come up with appropriate policy actions to different skills challenges of the countries in the region.

**Table 2. Frameworks to discuss the sources of skills gaps and imbalances**

<table>
<thead>
<tr>
<th>Theory</th>
<th>Description</th>
<th>Arising skills issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital theory</td>
<td>More education is positively linked with higher productivity (measured in wages). Wage differentials happen between individuals with high levels of education, job training, and experience relative to those with less.</td>
<td>Problem of mismatch arises when wage gap results to over investing in education (over-education).</td>
</tr>
<tr>
<td>Job Competition model</td>
<td>In a queue for jobs, the model asserts that more education can serve as an insurance to bump a less educated individual. As labour queue ranks workers based on possible training costs, and so workers are ranked in accordance with their educational attainment as it means less training costs for the firms.</td>
<td>In order to avoid being bumped out of the labour market or stay in the labour queue, obtaining education in excess of what job requires is an attractive choice for workers though resulting to over-education.</td>
</tr>
<tr>
<td>Signalling and screening hypothesis</td>
<td>Although an individual’s productivity could not be known immediately at the point of hiring, there are individual characteristics that could facilitate the potential contribution of an applicant to</td>
<td>In the absence of direct and tangible measure of individual’s productivity at the point of hiring, over-education is used as signal</td>
</tr>
</tbody>
</table>
### Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

<table>
<thead>
<tr>
<th>Skills Issues</th>
<th>Sources of Skills Issues</th>
<th>Policy Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological change</td>
<td>Changes in jobs brought about by innovations and technological change progress are readily handled by more educated individuals for the following reasons: physical capital has stronger degree of complementarity with skilled labour than unskilled labor, jobs requiring individuals to keep abreast with innovations require higher levels of schooling, and skilled labour has advantage over unskilled as technological progress can bring about diverse responsibilities resulting to multiple tasks</td>
<td>Underutilisation of skills happened as firms are slow to adopt to new technologies. Firms hire overqualified workers as hedging strategy in anticipation of future technological changes requiring increasing capacities of workers to learn and adapt</td>
</tr>
<tr>
<td>Career mobility theory</td>
<td>Returns to education include higher likelihood for career mobility or occupational upgrading, either through intra-firm or inter-firm career mobility.</td>
<td>This theory claims that better promotion prospects offsets the wage penalties for over-education</td>
</tr>
<tr>
<td>Job search theory</td>
<td>As individuals look for jobs, they may accept as job below their attained qualification due to imperfect information and job-search costs</td>
<td>The pressure to accept a job due to mounting costs associated with prolonged search may increase the likelihood that a workers will accept a job with tasks not necessarily commensurate to her/his credentials and actual capabilities (under-utilisation)</td>
</tr>
<tr>
<td>Job assignment theory</td>
<td>An individual's productivity and earnings is likewise determined by the nature of job an individual happens to be assigned and not only by job performance alone. A set of equally educated individuals will inevitably have varying degrees of performance when made to accomplish the same task given a diversity of jobs in terms of tasks, responsibilities, expected output, skills sets, and technologies utilised. Job characteristics constitute an intermediate step between individuals’ characteristics and their actual earnings</td>
<td>Mismatch arises when workers have jobs that are not congruent with their own qualities</td>
</tr>
</tbody>
</table>
Indicators of skills imbalance

To study and track the skills needs and type of skills imbalance or issues, many studies used mostly a mixture of different indicators in combination with qualitative intelligence. The APEC study on skills shortages, for example, has identified these methods and indicators as follows (Iredale et al., 2014):

- Graduate outcomes survey
- Labour market projections (e.g. horizon scanning and scenario development)
- Vacancies and vacancy rates,
- Recruitment difficulty
- Labour turnover
- Employment growth
- Hours worked
- Wage movements
- Unemployment
- Labour to population ratio

These methods and indicators have their uses and their limitations in detecting the presence, scale and to some extent the causes of skills imbalance. For one, they presume the existence of large and sophisticated data collection infrastructure and skilled and experience labour market specialists, interviewers and statisticians, and if these conditions do not hold, the quality of data and analysis could be questioned (APEC, 2014). Other limitations as highlighted by APEC (2014) includes:

- Projections are subject to high uncertainty due to technological change, shifting geographic location production and economic fluctuation
- The indicators have no clear theoretical base for determining how much deviation from the trend constitutes an imbalance that requires government intervention
- Value of indicators (e.g. wages) differs across occupation due in part with role of government in the sector, for example.
- Some issues attached to qualifications
  - Stock of qualifications does not account for skills that were acquired or loss after the formal education
  - Variation in the quality of similar qualifications within and across countries

Also, some countries do not directly identify current skills shortages, instead they identify occupations where a growing demand is predicted. Though growing demand does not equally refer to a skill shortage, it does suggest an occupational niche where skill shortage may appear (Iredale et al., 2014).

Given the different indicators with its limitations, the analyses on skills issues may differ and sometimes send contradictory signals, thus, it is important to have qualitative data coming directly from the employers, employees, unions, and other
labour market participants. These limitations of skills indicators should be kept in mind when reading the skills issues of each country.

**Mapping tool for skills demand and supply**

OECD has developed a mapping tool for skills using the concepts of demand and supply. With this tool, economies could be mapped into one of the 4 quadrants showing the relationship of skills supply and skills demand.

**Figure 1. Skills equilibrium and mismatch**

<table>
<thead>
<tr>
<th>High Skills Demand</th>
<th>SKILLS GAPS &amp; SHORTAGES – organisations demanding higher skills than are available in the workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• high wage/high productivity good job slots</td>
</tr>
<tr>
<td></td>
<td>• low local educational attainment and skills</td>
</tr>
<tr>
<td></td>
<td>• high share of skilled employees needed</td>
</tr>
<tr>
<td></td>
<td>• high vacancy rates for skilled jobs</td>
</tr>
<tr>
<td></td>
<td>• in-migration of skilled workers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIGH SKILL EQUILIBRIUM – strong demand for high level skills, with a positive effect throughout the supply chain on enhancing aspirations and workforce development</th>
</tr>
</thead>
<tbody>
<tr>
<td>• high wage/high productivity good jobs</td>
</tr>
<tr>
<td>• high educational attainment and skills</td>
</tr>
<tr>
<td>• high employment rate/ low unemployment rate</td>
</tr>
<tr>
<td>• high share of skilled jobs</td>
</tr>
<tr>
<td>• balance in-out migration.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOW SKILL EQUILIBRIUM – few skill shortages and predominantly low-skilled workforce- no incentive to participate in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>• low wage/low productivity poor jobs</td>
</tr>
<tr>
<td>• low local educational attainment and skills</td>
</tr>
<tr>
<td>• cycle dependent employment, low share of skilled employees needed,</td>
</tr>
<tr>
<td>• out-migration of the more skilled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SKILLS SURPLUS – mismatch caused by a workforce which cannot find employment to match their skills and aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• low wages/low productivity poor jobs</td>
</tr>
<tr>
<td>• high local educational attainment and skills</td>
</tr>
<tr>
<td>• low share of high skilled jobs</td>
</tr>
<tr>
<td>• high unemployment rate of skilled workers</td>
</tr>
<tr>
<td>• out-migration</td>
</tr>
</tbody>
</table>


The low skills equilibrium (bottom left quadrant) and high skills equilibrium (top right) represent ‘balance’, but the latter obviously is desired compared to the former for economic and social reasons. The skills gaps and shortages (top left) and skills surplus (bottom right) are indicative of imbalance which can be expected to be short-
term as market adjusts through the activities of businesses and government (Green, 2012). The following are possible explanations for each of the skills scenario:

- **Low-skills equilibrium** – average businesses operate competitively with low skills and relatively low wages and companies, thus competition is primarily based on low cost. These businesses are less likely to be driving demand for higher level skills. As Green (2012) noted, examples of low-skills equilibrium are the many peripheral rural areas and old industrial areas.

- **High skills equilibrium** – this is where average businesses need, command and utilise high skills to generate more sophisticated products and services, which drive demand for skills, generating higher wages and economic growth. Core labour markets in prosperous regions are more likely to be indicative of a high skills equilibrium.

- **Skills gaps and shortages** – this is the case where demand for skills or labour is higher than the supply. Some skills of short supply may need to be filled by migration of upskilling the existing or potential workforce. Broadly, relevant policy response is to facilitate better information flow and market signalling to help supply the relevant skills through in-house skill development, education and training, or in-migration, or wage adjustments, or combination of policy choices.

- **Skills surpluses** – is when supply of skills outstrips demand thus skills are not utilised or under-utilised. Indicators under this quadrant include high local educational attainment and skills but low share of high skilled jobs, high unemployment rate of skilled workers, low wages/low productivity poor jobs, and out-migration.

**Socio-economic context of the Five Asian countries**

Before proceeding to discussing the specific skills issues of each of the five countries in Asia, the socio-economic contexts of these countries and their linkage to skills and training are important to be presented, too. Tullao, Cabuay, and Hofilena (2015) succinctly explained the link of training and skills (human resource development) to economic growth. They noted that countries usually go through phases of development starting as a traditional economy with growth bias in agriculture, employing unskilled workers and undemanding technology. As countries develop, agricultural intensity decreases and industrial and manufacturing sectors increase with changes in technology and types of workers. Tullao et al further explained that “as countries continue to progress, they use a mix of borrowed technology and locally developed technology requiring professionals with higher education such as engineers, technicians, technologists; and beyond the age of heavy manufacturing, countries are able to innovate, which requires scientists, engineers and researchers who can conduct research and development to produce the knowledge capital required as a base for innovations….The capacity of a country to innovate will determine its global competitiveness. Hence, education, training, and human resource development play an important role in economic growth” (p. 1).
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

Context is important in understanding the differences in the nature of skills issues of each country, and the type of responses being employed in addressing the issues. Also, context is a key in understanding the success or failure of these responses. In APEC region where developed and developing countries are included, for example, the type and causes of skill imbalances and their solutions differ across APEC economies as they are strongly influenced by their level of development and structure of industries.

World Bank’s (2012, 2014) mapping of countries by level of development is a useful tool to understand Asian countries and their skills needs. The mapping categorised the countries into eight levels of development, with each level having its own specific challenges and the type of good jobs needed for development. These categories include agrarian, urbanising, formalising, aging, high youth unemployment, resource-rich, small island state and conflict affected (see Table 2).

Having the knowledge of the level of development of each country would be useful in formulating strategies for skills as it reflects to the level of employment by sector.

Table 3. WDR 2013 country types: Job challenges typology, by level of development, demography, institutions, and natural endowments

<table>
<thead>
<tr>
<th>Specific type</th>
<th>Countries</th>
<th>Dominant, defining feature</th>
<th>What good jobs for development?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of development</td>
<td>1. Agrarian</td>
<td>Majority of the population living in rural areas</td>
<td>• More productive smallholder farming</td>
</tr>
<tr>
<td></td>
<td>Thailand, Vietnam</td>
<td></td>
<td>• Urban jobs connected to global markets</td>
</tr>
<tr>
<td></td>
<td>2. Urbanizing</td>
<td>Agricultural modernization and rural-urban migration rapidly taking place</td>
<td>• Jobs providing opportunities for women</td>
</tr>
<tr>
<td></td>
<td>Indonesia, Malaysia, Philippines, Vietnam</td>
<td></td>
<td>• Jobs moving the country up the export ladder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Jobs not leading to excessive congestion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Jobs integrating rural migrants</td>
</tr>
<tr>
<td></td>
<td>3. Formalizing</td>
<td>An urban middle class coexisting with a large share of informal employment</td>
<td>• Jobs with affordable social benefits</td>
</tr>
<tr>
<td></td>
<td>Malaaysia, Vietnam</td>
<td></td>
<td>• Jobs not creating gaps in social protection coverage</td>
</tr>
<tr>
<td></td>
<td>4. Aging</td>
<td>Rapidly increasing old-age dependency ratios</td>
<td>• Jobs keeping the skilled active for longer</td>
</tr>
<tr>
<td></td>
<td>Indonesia, Thailand, Vietnam</td>
<td></td>
<td>• Jobs reducing the cost of services to the elderly</td>
</tr>
<tr>
<td></td>
<td>5. High youth unemployment</td>
<td>Youth unemployment and idleness</td>
<td>• Jobs not supported through rents</td>
</tr>
<tr>
<td></td>
<td>Indonesia, Philippines</td>
<td></td>
<td>• Jobs not allocated on the</td>
</tr>
</tbody>
</table>
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

<table>
<thead>
<tr>
<th>Specific type</th>
<th>Countries</th>
<th>Dominant, defining feature</th>
<th>What good jobs for development?</th>
</tr>
</thead>
</table>
| Natural endowments   | 6. Resource rich | Indonesia, Extractive industries are a substantial share of exports | • Jobs supporting export diversification  
• Jobs not subsidised through transfers |
| 7. Small island state| -         | Islands with less than 1 million in population | • Jobs connected to global markets, and jobs not undermining fragile ecosystems |
| Institutions         | 8. Conflict affected | - | Livelihoods altered by war and violence | • Jobs demobilising combatants, jobs reintegrating displaced populations, and jobs providing alternatives to confrontation |


Though differences are expected, similarities are also present. Across the Southeast Asia region, there are large pools of semi-skilled and unskilled workers due to population growth and migration from rural to urban areas (OECD, 2009). The region is also characterised by the following issues:

- lack of decent and productive employment
- need to reform labour market institutions
- evidence of skills mismatch
- poverty reduction is still challenges development in the region
- growth of informal economy
- migration and mobility represent both challenges and opportunities
- impact of free trade agreement remains largely unexplored
- industrial composition is fragmented
- lack of entrepreneurial development linked to productive activities

The figures 1 to 4 show a more detailed socio-economic context of the countries with their average national unemployment, youth unemployment and skills demand based on employment by occupation. Figure 3 shows that the workforce in SEA countries are mainly in the agriculture and services except in Malaysia where industry employment is higher than agriculture. Figures 4 and 5 show that youth unemployment is relatively higher in Indonesia, the Philippines and Malaysia than the average total unemployment.
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

Figure 3. Employment by sector in five South East Asian countries

![Employment by aggregate sector (%), 2012](image)

Source: 2012 data except Indonesia with 2011 data, Key Indicators of the Labour Market (KILM) 8th edition (International Labour Organization, 2014)

Figure 4. Total Unemployment, 1991-2013

![Total Unemployment (%), 1991-2013](image)

Source: Key Indicators of the Labour Market (KILM) 8th edition (International Labour Organization, 2014)
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

Figure 5. Youth unemployment (aged 15-24), 1991-2013

![Graph showing youth unemployment (%) 1991-2013 for Indonesia, Malaysia, Thailand, Philippines, and Vietnam.]

Source: KILM 8th edition

Figure 6. Skills demand

![Graph showing skills demand by occupation (%) for Vietnam, Thailand, Philippines, Malaysia, and Indonesia.]

Skills demand: Employment by occupation (%)

Source: KILM 8th edition
Economic and political changes play a part in the changing skills needs and gaps. For example, after the economic liberalisation in Vietnam resulting to the massive development of both private and foreign direct investment sectors offering higher wages, being passive learners and workers seem to no longer appropriate for the economy. With Vietnam’s integration with the Association of Southeast Asian Nations (ASEAN) in 1995 as well as World Trade Organisation in 2007, and just recently, its free trade agreement with European Union and its joining the Trans Pacific Partnership agreement (TPP), its economy, alongside its workers’ skills, and its traditional products needs to adapt to the international competitive market.

The size of firms also matter in skills and economic development and planning. In Thailand, small and medium enterprises (SMEs) account for the largest proportion of employment with 76% of total employment, but as Wiwaha (2012) noted, it only accounts 38.9% of GDP. This may indicate that only by diversifying the SME’s productivity can they be upgraded and developed (Wiwaha, 2012), which in turn has implications on skills of workers employed by SMEs. In the Philippines, SMEs also have strong contribution to the economy. Based on a survey of business enterprises in the Philippines in 2006, 99.7% of the 783,065 business enterprises were micro, small, and medium enterprises (MSMEs) and the remaining 0.3% were large enterprises (Legaspi, 2012). These MSMEs contributed 3.3 million jobs (70%) of the total jobs generated during the period, 30% of the total value-added in the manufacturing sector, and accounted for 25% of the total exports (Legaspi, 2012). In Indonesia, the SMEs jobs account for 97% of the workforce, and its contribution to GDP was 59% in 2012, and 16.4% of exports in 2011 (SMEs Development in Indonesia, 2013).

With the ASEAN countries committing to an ASEAN Economic Community that will create a single market of 604 million people through the three existing agreements namely, AFTA (ASEAN Free Trade Agreement for the free flow of goods), AFAS (ASEAN Framework Agreement on Services for free flow of services including skilled labour), and ACIA (ASEAN Comprehensive Investment Agreement for the flow of investment and capital), there are skills and talent flow implications in particular relation to AFAS. For example, in terms of managing the flow of people in and out of the organisation cross-borders, a challenge is to make sure that local talent will not be displaced or reduce their earnings. And as skilled labor becomes regional, qualification recognition arrangements needs to be established in working towards harmonization and standardisation of movements. New skills sets and work habits will also be required aside from technical skills as identified by Sim (2012, as cited in Luz, 2014). These are soft skills like personal skills (skills learned by individuals for professional growth), character-building skills (work habits and character developed within an individual that are salient to work environment), and organisational skills (skill sets that will develop and sustain the workplace). Sim also emphasised the importance of English language if it is to be the common universal working language across ASEAN. Luz (2014) three action steps for education in view of AEC. These include, enhancement of cooperation among ASEAN University Network members to increase mobility of students and staff within the region, development of core competencies and qualifications for job/occupational trainers skills required in the agreed priority sectors, and strengthening of the research
capabilities of each ASEAN member-country in terms of promoting skills, job placements, and developing labor market information networks among ASEAN member countries (Luz 2014, Slide 20).

PART 2. Skills Issues, Sources of skills Issues, and Policy Responses in each country: Indonesia, Malaysia, the Philippines, Thailand, and Vietnam

This section is to highlight the studies and efforts on skill issues by looking at the country reports by well-established organisations like OECD, World Bank, ILO, ADB, Asia-Pacific Economic Cooperation (APEC), etc, and the national reports and other reports by local think tanks and scholars. This section does not assume to be comprehensive in terms of including all the papers that are out there on skills, but instead try to provide the general picture of each country’s skills issues and the efforts in addressing those issues, as presented by the well-written reports of the international and national organisations and experts. This section is a presentation of the skills issues, sources of the issues, and the responses to address those issues for each of the five countries namely Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

Indonesia

Employment Scenario

Indonesia is characterised as urbanising with agricultural modernisation and rural-urban migration. It is resource-rich with extractive industries as substantial share of exports, and with rapidly increasing old-age dependency ratio (World Bank, 2014). Nearly half of the labour force in Indonesia is in services (43.5%, see figure 3), with total unemployment of 6.3% (figure 4) and a very high youth unemployment of 21.6% (figure 5). In terms of occupational employment (figure 6), 29.7% are skilled agricultural and fishery workers, 18.7% are service, shop, market sales workers, 16.2% are in elementary occupations, 13.8% are craft & related trade workers, 7.1% are plant, machine operators and assemblers, 5% are clerks, and only 4.9% are professionals, 2.4% are technicians and associate professionals, and 1.7% are managers, senior officials.

The McKinsey Global Institute 2012 report (as cited in Aring, 2015) pointed out that the current 'consuming class' now in Indonesia of 45 million is forecasted to almost double to 85 million in 2020. This has implications to the hospitality and retail industry in improving its services and products as well as upgrading the skills of the workers.

Skills Issues

According to an Asia-Pacific Economic Cooperation (APEC) report on skills and employment in the APEC region (Economist Intelligence Unit, 2012 as cited in
Iredale et al., 2014), Indonesia is not suffering from lack of graduates but lack of ‘appropriately skilled workers’. This was the same findings by the World Bank’s 2011 report on Indonesia’s skills, which says that majority of the young workers experience a somewhat low sense of preparedness or qualification for their jobs or for professional life in general (di Gropello et al., 2011a). Demand for quality of education and training is high across the board. In the employer skill survey of 2008 almost one-third of secondary graduates are considered to be below average or very poor, and most of the rest are just fair. Tertiary education graduates have somewhat better reputation but the majority are considered only fair and a very small proportion are rated very good (di Gropello et al., 2011a).

The Employer Skill Survey of 2008 (di Gropello, Kruse, & Tandon, 2011b) revealed that finding right profile for directors and professionals was perceived to be difficult by more than 80%, and 60%, of the respondents, respectively. The identified widest skills gaps across professional profiles were in English, computer skills, thinking, and behavioural skills. Among the behavioural skills, leadership, team orientation, and ability to work independently were considered weak. The strongest gaps in job-specific skills are in the theoretical and practical knowledge of the job which were to a large extent related to lack of experience in the field. Respondents in the manufacturing and export sectors tend to report greater difficulty in finding employees with required skills. Services also face serious difficulties.

OECD & ADB (2015) reported that students are not developing the hard knowledge, soft skills and practical know-how needed in the emerging job market. Di Gropello et al reported that young workers experience important gaps in creativity, computing, and some technical skills; and English remains the perceived largest gap by both younger and older workers. These young workers also perceive a greater need for team skills and adaptability, and inversely, they perceive a greater need for leadership and independent thinking.

In terms of skills shortages by sectors, APEC (Iredale et al., 2014) reported that the rapid growth of services like finance, insurance, real estate and business services do account for the shortage in skilled labour in these areas. The sectors experiencing greatest shortages are Agriculture, forestry, hunting, & fishery (3.6 million according to 2012 National Labour Force Survey), and the Transportation, storage & communication. OECD/ILO (2011) reported that only 25% of the secondary TVET graduates learn agricultural techniques, when the agricultural share of employment is about 40% (or 35.6% in 2013). The mismatch also happens in tourism with 7% TVET graduates while the share of tourism employment is only 2%.

In terms of occupations, the greatest shortages include: Administrative and Managerial workers, Service workers and production and related workers, Transport equipment operators, Labourers, and Others. Future demand for managers and professional occupations is expected, and the quality of workers in these occupations also needs to be improved (Iredale et al., 2014). The low numbers of scientists and engineers could be a hindrance in moving up the global value chain and fields that have been traditionally neglected such as environmental science, and aerospace or defence engineering, could experience shortage (Economist Intelligence Unit, 2012 as cited in Iredale, et al, 2014).
In terms of surplus based on the 2012 National Labour Force Survey (NLFS), the largest occupational surplus was Sales workers, and at the sector level, the greatest surplus was present in Community, social, and personal services (Iredale et al., 2014).

**Sources of the issues**
The main reasons cited for the skills issues in Indonesia have something to do with the relevance and quality of education and training, lack of diversification in recruitment practices, poor certification process, high job turnover, and low starting wages (di Gropello et al., 2011a).

The current TVET system has low capacities and generates relatively, low-skilled workers. It is severely underfunded and dependent on budget coming from the central government. The teachers are lacking practical experience in modern workplaces and lacking motivation. Because of the low quality TVET provision, TVET is generally held in low esteem and as second-best option for those who failed academically in the school system.

There is little incentive for training advisory boards to find out what the demand is to reflect it to the training programmes (OECD/ILO, 2011). OECD and ADB (2015) reports that the current supply driven TVET system is fragmented across numerous ministries and private sector resulting to duplication of efforts, gaps in service provision, and policy inconsistencies that can disadvantage learners. Thus, there is an urgency for system coordination, employer involvement, and making TVET more industry-driven.

At the firm level, companies tend to provide short-term remedial skill development rather than longer-term development. Manufacturing and exporting firms do not train to the level that would allow their professional and managerial employees to become generally more competitive and innovative.

Majority of firms and workers rely heavily on private networks and recommendations when searching for candidates and vacancies, respectively. That type of recruitment and job search practices likely limit the pool of candidates identified by firms thereby increasing the perceptions of skills gaps (Packard & Nguyen, 2014, p. 112). The employment services fail to channel TVET graduates to employment or further training.

Tertiary education also remains unconnected to the needs of the labour market based on the results from the survey of skills 2008. Also, graduates of diploma programs perform poorly than university graduates, and weaknesses are greater in private tertiary institutions across the board (di Gropello, Kruse & Tandon, 2011).

**Responses**
A specific effort to address TVET issues is the establishment of community colleges (akademi komunitas), which aims to increase the proportion of vocational graduates progressing to further education and training from the current 15% (Martinez-Fernandez & Powell, 2009).

As the government recognised the constraints in the labour market as well as the need to improve the quality of existing training programmes, a number of
strategies had been formed as reported by OECD (Martinez-Fernandez & Powell, 2009):

1. Improving access to education by providing information about further education and employment opportunities
2. Improving quality of training and education by strengthening public and private skill training providers and competency based education.
3. Improving the governance of education system by supporting accreditation of training providers, enhancing the capacity of providers and quality of the private non-formal education providers
4. Improving the labour centres operation to ensure matching of job vacancies of employers with job searches of work seekers

OECD (Martinez-Fernandez & Powell, 2009) also reported that there are examples of best practices using decentralised approaches in Indonesia. One of these is the CEVEST Training Centre that deliver quality skills programmes leading to certificates awarded by the BNSP (Badan Nasional Sertifikasi Profesi). It has strong links with industry, providing regular training to instructors and upgrading of equipment to meet the changes in technology and industrial demand. Another one is the East Java Provincial Office of Manpower that successfully established a modern employment service centre with extensive online services, counselling offices, and resource centre for job seekers.

OECD & ADB Report (2015, p. 36) provided some recommendations for the improvement of the Indonesian TVET to have a stronger employer engagement and national coordination:

- Establish a national body with responsibility for integrated TVET policy and provision across all economic sectors, regions, and ministries. The proposed President’s TVET Council (PTVETC) should include a balanced representation from employers, ministries, and providers.
- Consideration to be given to ways and means of better aligning the skills of the systems’ graduates with labour market opportunities, not only in the expanding services sector but also in modernising agricultural and manufacturing sectors.
- Consider assigning coordination responsibilities to the provincial education offices to link SMK and AK education and training services in designated economic corridors to the industries designated for growth, as well as, providing subsidies to SMKs that train in occupations identified for strategic industries, in identified economic corridors not presently covered by private SMKs.
- Industrial attachment and other forms of work-based learning to become standard practice across all vocational programmes
- Raise national awareness of the value of TVET through communications campaign involving employers
- Progressively raise the level of financial assistance for SMK students
• Consideration to be given to ways and means of raising income from non-government sources
• Relevant ministries to establish framework for activity-based costing in the TVET sector, alongside a set of cost-effectiveness benchmarks and performance management system
• Resuscitate multi entry/exit system allowing flexibility to enter, exit, re-enter formal education and training depending on their financial and social circumstances.
• Consider offering short courses and employing instructors on short contracts so they can move in and out of the workplace and school. Make vocational training close to workplaces or commuter transit corridors so that part time trainees can keep on working while acquiring further skills.

Malaysia

Employment Scenario
Malaysia is characterised as urbanising with agricultural modernisation and rural-urban migration rapidly taking place just like Indonesia, Philippines and Vietnam (World Bank, 2014). It is also formalising where an urban middle class co-existing with a large share of informal employment (World Bank, 2014). Large employment is in the services sector with almost 60%, followed by industry with 28.4 employment. Malaysia has the lowest agricultural employment among the five ASEAN countries with only 12.6% as compared with say Vietnam with 47.2% or Thailand with 39.6%. Total unemployment is low with 3.2% and youth unemployment of only 5.4% in 2013 as compared to Indonesia’s 21.6%. In terms of occupational employment (see figure 6), 16.8% are service, shop, market sales workers, 14.8% are technicians and associate professionals, 11.8% are plant, machine operators and assemblers, 11.3% are skilled agricultural and fishery workers, 10.7% are in elementary occupations, 10.5% are craft & related trade workers, 10% are clerks, and only 7.5% are managers, senior officials, and 6.3% are professionals.

Skills Issues
Ghazali (2012) reported that Malaysian workforce is relatively unskilled with 77% educated up to 11 years of basic schooling at the Malaysian Certificate of Education (SPM) level or equivalent, or only 28% of Malaysian jobs are in the higher skilled bracket. In 2020, according to the Economic Planning Unit’s baseline occupational planning scenario, 32% of all jobs will fall under the skilled category (Ghazali, 2012). Tertiary enrolment rate is currently at 36% while the target for 2025 is 53% (Malaysian Government, 2015b). Employers still report of graduates lacking the critical thinking and communication skills, and the language proficiency (especially English), and the requisite knowledge, attitudes and skills (Malaysian Government, 2015b).

While there seems to be some skill gaps, skills mismatch, is also present. A study by Yusuf and Wilkinson (2008) found out that there was a large surplus of
tertiary educated graduates and severe shortage of trades and technical workers due to lack of regard for vocational education as compared with academic education. The Higher Education Blueprint 2015-2015 reported that there is an undersupply of TVET workers in 10 of the 12 national Key Economic Area sectors. APEC reported (Iredale et al., 2014) that 2013 Jobs Malaysia data that was supplied by the government stated that the top three major group occupations with highest vacancies include Elementary occupations, Services and sales workers, Plant and machine operators and assemblers; while the occupation that have highest job seekers include Professionals, Clerical support workers, and Technicians and associate professionals.

Sources of the issues
In a 2003 survey of manufacturing and selected business support services sectors (Yogeesvaran, 2005), 41-46% of the firms identified that shortage of skills as ‘severe’ or ‘very severe’ problem. The most important reason for the shortages as cited by about 70% of the managers who participated in the survey was insufficient university graduates.

The Malaysian Education Blueprint 2015-2015 has mentioned that issues that need to be addressed include improvement of the collaboration between academia and industry with regard to research, development and commercialisation, budget constraints and rising costs of higher education to improve productivity, efficiency, and overall financial sustainability of the higher education system and institutes.

The skills issues are tied to the quality of teachers and academic community. The Higher Education Blueprint 2015-2015 reported that currently, the rigid career development pathways restrict the degree to which the higher learning institutions are able to attract, recruit, and retain the best talent. There are also insufficient specialisation based on the institutions’ strengths and focus areas. The document calls for moving away from one-size-fits-all system, to one that institutions have diversified career pathways and different models of institutional excellence.

Also, many of the decision making are concentrated at the Ministry level creating supervisory burden and potential inefficiencies by making it difficult for HLIs to move quickly in response to global and local trends, thus there is a call for empowering HLIs in steering their own journey and growth (Malaysian Government, 2015a).

Responses
Malaysia is clear with its goals of developing a highly educated and skilled workforce and support a value-added approach to development as opposed to low wage low skills route. To fulfil these goals of moving up the value chain and raising the skills of the workforce, the government has a developed a number of policies and commitments as reported by OECD (Martinez-Fernandez & Powell, 2009):

1. Encouraging the employer involvement in training via a levy system called Ministry of Human Resources Development Fund which was set up in 1993 requiring employers to pay a levy of 0.5% to 1% of their monthly payroll into
the fund which the employer can use to claim reimbursement for training or training grant.

2. Apprenticeship scheme that is patterned after the German system with 70% of the training are on-the-job, and 30% off-the-job in a training institution.

3. Government’s attempt to raise skills levels of all groups, and commitment to developing entrepreneurs and entrepreneurial values especially amongst the Bumiputera and the rural population through the Institute of Technology ‘MARA’ activity centres and skill institutes; and the basic skills and entrepreneurial training to young people who failed the school system through the GIATMARA training centres.

4. Loans to unemployed graduates to obtain vocational skills and start-up new businesses.

5. National Youth Skills Institutes that provide training for the unemployed youth on skills that are in demand by employers.

Other strategies relating to improving availability, access and quality of technical education and vocational training (TEVT) include improving the perception of TVET and attracting more trainees, developing highly effective TEVT instructors, upgrading and aligning TEVT curriculum quality with industry requirements, and streamlining the delivery of TEVT (Ghazali, 2012). The challenge with the Malaysian model is to ensure that all skills programmes continually meet the labour market’s changing demands (Martinez-Fernandez & Powell, 2009).

The 11th Malaysian Plan 20016-2020, Strategic Thrust 3 (Malaysian Government, 2015a) specifies the initiatives for accelerating human capital development with four areas of focus namely:

- Improving labour market efficiency to accelerate economic growth with target outcomes:
  - 3.7% labour productivity target per year compared with 2.6% in 10th Plan
  - 40% wages to GDP in 2020 as compared with 33.6% in 2013
  - RM2,500 monthly median wage in 2014
- Transforming TVET to meet industry demand
  - 225,000 SPM leavers to TVET programmes, an increase from 164,000 in 2013
- Strengthening lifelong learning for skills enhancement
  - 58% increase in the number of employees that will benefit from expansion of the HRDF Act; from 1.77 million employees in 2014 to 2.8 million in 2020
- Improving the quality of education for better student outcomes and institutional excellence
  - To be at least on par with the international average in PISA and TIMSS assessments
  - Two universities in the top 100 of the QS World University Rankings
  - 100% student enrolment from preschool to upper secondary.
The Higher Education Blueprint 2015-2025 identified 10 shifts or outcomes to achieve the higher education systems and students aspirations:

**Table 4. Malaysia’s 10 Shifts**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Initiatives to achieve the outcome</th>
</tr>
</thead>
</table>
| Holistic, entrepreneurial and balanced graduates (to move from being job seekers to job creators) | - Enhance learning experience by expanding industry collaboration in the design and delivery of the programmes, increasing use of experiential and service learning and leverage on technology-enabled models of personal learning  
- Devising an integrated cumulative grade point average system to assess student's holistic, entrepreneurial and balanced development  
- Creating opportunities for students and academic staff to acquire entrepreneurial skills |
| Talent excellence                                  | - Positioning higher learning institutions (HLIs) according to their recognised areas of institutional excellence  
- Enabling HLIs to develop multi-track career pathways  
- Providing best practice guidelines to support end-to-end talent development strategies for both local and international talent. |
| Nation of lifelong learners                        | - Creating framework for recognising prior learning  
- Launching stakeholder engagement programmes to make it easier for the public to search for information on available programmes  
- Continuing to provide financial support to disadvantaged groups and tax reduction incentive schemes to companies and work with financial institutions to create financial assistance to all groups |
| Quality Technical and Vocational Education and Training Graduates | - Enabling industry to lead curriculum design and delivery through new partnership models and lifting the quality of delivery through increased apprenticeship, hands-on training, real-life simulations, and specialised employer programmes  
- Enhancing coordination across the Ministry’s various TVET providers to eliminate duplication of programmes and resources, enable greater specialisation in areas of expertise, and improve cost efficiency  
- Coordinating with other ministries and agencies offering TVET programmes to streamline the national qualification framework, ensure alignment with major industry associations, and pursue international accreditations for TVET programmes |
Outcome | Initiatives to achieve the outcome
--- | ---
Financial sustainability | The Ministry will link government funding to performance, reform existing student financing mechanisms and encourage HLIs to diversify funding sources
Empowered Governance | The Ministry will focus on its role as a regulator and policymaker, and give HLIs greater decision-making power in return for clear accountability against a set or pre-agreed outcomes
Innovation Ecosystem | The Ministry will elevate a few priority research areas critical to Malaysia’s growth, catalyse private sector and industry involvement to facilitate the commercialisation of ideas
Global Prominence | The Ministry will enhance the end-to-end international student experience, increase brand visibility, and strengthen existing and new markets for international students.
Globalised Online Learning | The Ministry will work with HLIs to build the capabilities of the academic community, explore the establishment of a national e-learning platform to coordinate and spearhead content development.
Transformed Higher Education Delivery | The Ministry will redefine the roles, organisation, and operating model of the Ministry, enhance delivery capabilities within the Ministry, and harmonise across public and private institutions.

The Philippines

Employment Scenario
Similar to Malaysia, the Philippines is urbanising where agricultural modernisation is happening and rural to urban migration is rapidly taking place. Youth unemployment is high with 16.7% in 2013, second to Indonesia with 21.6% (see figure 5), but Philippine total unemployment rate is the highest among the five countries with 7.1% in 2013 (see figure 4).

In terms of occupational employment (see figure 6), 32.5% are in elementary occupations, 16.2% are managers, senior officials, 13.1% are skilled agricultural and fishery workers, 12.3% are service, shop, market sales workers, 6.8% are craft & related trade workers, 5.3% are plant, machine operators and assemblers, 5.9% are clerks, and only 4.9% are professionals, 2.6% are technicians and associate professionals.
Skills Issues

The World Bank Report on Skills for the Labor Market in the Philippines (Gropello, Tan, & Tandon, 2010) reported that skills demand has been growing and changing in the Philippines due to changes in output and employment structure (across and within sectors) with the workforce increasingly becoming educated over the last 20 years and demand for education growing overall. At the point of study, the service sector seemed to be the main driver of demand for skills, but other significant determinants include export orientation in both manufacturing and services, access to technology, and overseas employment. The lack of dynamism of the country’s manufacturing sector which translates into lower demand for some higher level skills is likely have been partly induced by the lack of quality workforce. This implies that maybe a skilled workforce is necessary to relaunch the sector starting with some critical subsectors such as agro-industry, chemicals, machinery, and electronics (p. 8).

This particular World Bank (Gropello et al., 2010) study pointed to the strong needs of the following skills:

- Combination of generic and job-specific skills including capacity to work independently and communicate effectively, practical knowledge of the job, problem-solving and leadership for managers and professionals, teamwork, time management, better grounding in theory for skilled production and sales staff.
- Higher level skills applicable to service sector includes training for business and finance, high level academic and behavioural skills such as excellent literacy and client-orientation skills and communication skills
- Skills supporting a more competitive manufacturing sector including problem solving and creative thinking.

Difficulty in finding the right skills for the jobs are observable in the service and manufacturing sectors particularly in the export sector and subsectors like chemicals, trade and finance according to the Philippines Skills Survey of 2008 (Gropello et al., 2010). Difficulty in recruitment are due to the following scenarios: (a) occupations with few applicants (shortage), and (2) occupations with large number of applicants but with few qualified ones (mismatch/surplus) (Iredale et al., 2014). Some basic academic gaps such as Maths and Science are evident through the results from international assessments, while employers pointed out the serious gaps in some generic skills such as problem-solving, initiative, and creativity (Gropello et al., 2010). In an APEC study on skills shortages and training needs of MNCs in the Philippines in 2001, it was reported that though MNCs expressed satisfaction with the level of literacy and numeracy skills of the Filipino workers, MNCs indicated that the following skills can be improved: management and supervision, interpersonal and communication skills, planning and problem-solving, use of technology, self-management, multi-skilling, and team-work.

Using the 2009-2010 survey of job vacancies, APEC (Iredale et al., 2014) reported that clerk (26.3%) has the highest vacancy, followed by professionals
(15.1%), plant and machine operators (14.4%), and service and shop market sales workers (14.3%).

Using the 2009/2010 Bureau of Labor and Employment Statistics Survey ("Report on Employment Trends and Data Availability in the Philippines," 2013), the occupations and industries that were experiencing a shortage of suitable workers are those related to science and technology, and professional workers at the high-end category such as managers, supervisors, professional and technical and associate professionals including specialist. An example of this shortage is the lack of meteorologist, astronomers and weathermen that crippled the weather bureau. Other specific occupations in shortage include system analyst, engineers, programmers, and those in the health services particularly pharmacists, medical technologists, and medical doctors in different specialisations. It was noted that many of the managers in large and multinational companies are foreigner. In terms of occupations and industries currently experiencing a surplus of suitable workers, nurses is the most evident, but ironically, many parts of the country receive minimal or isolated health services, which is due to limited funding for public health care and hospitals, thereby the lack of opportunities for nurse graduates. Half of the unemployed in the Philippines are aged 15-24, and the unemployment is highest among those with higher educational qualification pointing to existence of skills mismatch (Peiris, Xie, Bagacay, & Delloro, 2014). Between 1976 and 2000, the unemployed with at least a college degree increased from 12% to 16% (Orbeta, 2003). But at the same time, industry surveys highlight shortages of qualified workers in export oriented sectors and large unfilled job vacancies (Peiris et al., 2014).

Another skills issue that Philippines faces is brain drain due to Filipinos going overseas to work for higher pay. The overseas Filipino worker profile is becoming more skilled, but tend to accept less skilled jobs in overseas due to big wage differences and limited employment opportunities at home country. In 2012, almost 10.5 million Filipinos were working overseas under permanent or fixed-term contracts (Peiris et al., 2014).

There is the issue also of underemployment which seems to be prevalent given the large share of science and engineering graduates working in retail and wholesale trade (World Bank, 2013 as cited in Peiris et al, 2014). Between 1976 and 2000, the proportion of underemployed who are at least college graduates increased from 23% to 37%. The 2013 Labor Force Survey reported 7.252 million underemployed persons or 19.2% of the employed.

Tullao et al. (2015) reviewed the state of Philippine education using four dimensions namely:

- **quality and excellence** (provision of education that meet international standards) using national achievement test scores, passing rates in professional licensure examination, levels of accreditation and quality of teachers,
- **relevance and responsiveness** (generation and diffusion of knowledge in disciplines that are relevant to both the domestic and international environment) using program offerings, enrolment, survival and completion rates and enrolment rates,
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

- **access and equity** (broadening the participation in education especially for deserving and qualified but underprivileged individuals) using financial assistance programs
- **efficiency and effectiveness** (optimisation of social, institutional, and individual returns to education) using budgetary allocations and internal and external efficiency indices.

For this particular discussion on skills issues, the first two dimensions—quality and excellence, and relevance and responsiveness are the pertinent dimensions in looking at the skills issues. According to the study (Tullao et al., 2015) the national achievement test scores for Grade 6 and 4th year high school have remained low; and the passing rates in professional licensure examinations for various disciplines have also remained low with an average of only 33.8% in 2010. For chemical engineers, civil engineers, electronics and communication engineers, teachers-elementary, teachers-secondary, the passing rates in 2010 were 54.7%, 39%, 23.5%, 17.7%, and 24.8%, respectively (Tullao et al, 2015). Thus, it is no surprise that there was a 23% decrease in the proportion of college graduates practicing their profession between 1976 and 2000 (Orbeta, 2003).

Also only 21.54% of the more than 2,247 higher education institutions have some form of accreditation. Also many of the graduates in higher education (by discipline) are in business and related courses, and the medical and allied fields with 107,272 (22.8%) and 128,050 (27%), respectively, out of the total 469,654 graduates in 2008-2009. With regards to TVET, the issue is its failure to achieve good employment rates with its graduates despite its relatively high certification rate of more than 83% in 2010 (Tullao et al., 2015).

**Sources of the issues**

The Philippine Government admits that there are long-running weaknesses of higher education and the three fundamental issues include lack of overall vision, framework and plan for higher education, deteriorating quality of higher education, and limited access to quality higher education by those who need it most and have potentials to maximize benefits (*Philippine Roadmap: Public Higher Education Reform*, n.d.).

The World Bank study (Gropello et al., 2010) indicated that the weaknesses of the higher education system include its lack of relevance and adaptability to labor market needs, linkages with industry, qualities of facilities and cost, while the post-secondary TVET education’s weaknesses include quality of facilities, curriculum balance and links with industry. As perceived by employers, quality of facilities and cost are the main weaknesses of tertiary institutions, but the length of studies, teaching quality, and teacher qualifications are generally seen as strengths (Gropello et al., 2010).

There are also strong quality and cost differences between public and private training institutions. Lack of access to finance postemployment training also prevents employees from being trained.

The skills issues (skills gap and mismatch) in the Philippines were identified to be rooted in its low quality of education and training, and the lack of guidance in the
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

The Department of Labor through the project JobsFit has identified three key major skills issues, namely, lack of experienced and highly skilled workers, school curriculum is not responsive to industry needs, poor dissemination of labor market information (Philippine Bureau of Local Employment, n.d.). The quality of workers’ skills and the relevance of their education and training were identified as the most significant reasons for skills gaps given the difficulties in finding the right skills for the job – resulting in persistent vacancies combined with high unemployment rates for educated workers and youth (Gropello et al., 2010). The persistent levels of unemployment and underemployment among graduates and the shortages of workers with skills to meet employer demand in some areas undermine the country’s economic competitiveness and shift to modern, higher value-added industries (Asian Development Bank, n.d.). Weak oversight and quality control, often misalignment of higher education curriculum with international norms and market labour demands, rote-based teaching and inadequate teaching materials and facilities are the factor that lead to low rates of low passing rates in the licensure examinations and poor image among employers and the general population (Asian Development Bank, n.d.). Proposals to improve quality consist of upgrading inputs into the education process such as faculty, facilities (laboratories and libraries), pre-college preparation, accreditation, periodic assessment and testing (Orbeta, 2003).

Labour market issues are also cited as factors in skill mismatch such as labour market segmentation across formal/informal and economic sectors (e.g. lower salaries in manufacturing), poor recruitment practices, emigration flows because of higher salaries abroad, and issues related to staff turnover (Gropello et al., 2010). Specifically, mismatch related to services sector pointed to lack of relevant educational fields and insufficient quality of higher and secondary education, while gaps in the manufacturing sector pointed mostly to labor issues for managers and professionals, and quality and relevance of post-secondary vocational education for skilled production workers (di Gropello, 2010). Though ‘brain drain’ could be considered a skills issue nationally, it can also be considered as a cause of the skills shortage especially in specialised areas as mentioned above (astronomers, medical doctors, etc). The lure of higher salary and benefits abroad and sometimes lack of job opportunities in the country contributed to the skills shortage.

Many micro, small, medium enterprises (MSMEs) in the Philippines are suffering from a lack of appropriate skills and capabilities to make their products and services compete in the global market and the reasons include poor access to financing training, poor information on training needs, the perception that existing workers’ skills and OJT provided by the supervisors and co-workers were more than adequate, and lack of training capacity (Legaspi, 2012).

Responses

In July 2011, during the 2nd State of the Nation Address of the President of the Philippines, the President instructed the relevant government agencies to devise convergent programs that would address the job-skill mismatch problem and improve the Filipino workers access to decent and productive employment, ensure a ready
supply of needed skills (“Report on Employment Trends and Data Availability in the Philippines,” 2013). The programs include:

- review of education and training curriculum
- development of a Philippine Qualifications Framework
- implementation of the Career Guidance Advocacy Program, and
- optimising the Phil-JobNet and strengthening the labour market information.

Under the Philippine Development Plan 2011-2016 and as articulated in the Commission for Higher Education Strategic Plan, the required changes to address the higher education weaknesses are packaged under Higher Education Reform Agenda (HERA) through the following strategic directions (Philippine Roadmap: Public Higher Education Reform, n.d.):

- Restructuring higher education institutions (HEI’s) by amalgamation along regional systems and specified institutions
- Developing and implementing a typology of HEIs and a development incentives scheme to support quality assurance
- Rationalising programs through moratorium/phase out of oversubscribed, inefficient, duplicative programs and support of priority programs
- Levelling the playing field through harmonisation between public and private HEIs
- Institutionalising and strengthening partnership with Basic Education
- Reviewing organisation structures and rationalising resources for higher education
- Strengthening quality assurance
- Upgrading of qualification of faculty
- Achieving excellence and global competitiveness
- Enhancing institutional governance through an executive development program
- Strengthening student financial assistance programs
- Optimising roles in poverty alleviation and social development

Some of the targets of completion of HERA include:

- 100% phase out/closure by 2016 of state university and colleges’ programs that are outside their mandates, duplicative and inefficient
- All authorised unaccredited programs evaluated by 2012; and 80% of the substandard and non-performing programs closed or phase out by 2016
- New academic programs developed and launched in critical high level professional disciplines, eg., geology, meteorology by 2013 and increased enrolment by 2016
- National passing rate in licensure exams in priority disciplines to 50% , and across disciplines to 52.53% by 2016
- Proportion of HEI faculty with masters to increase to 65% and with PhD to 30% by 2016 (NEDA, 2014)
2500 faculty scholars supported, 15 research and development centres established and accreditation of 425 programs in state universities and colleges by 2016

When it comes to technical and vocational education and training, the Technical Education and Skills Development Agency (TESDA) is administratively in-charge. The training provision is delivered by a network of public and private institutions through different modes: school-based, centre-based, enterprise-based, and community based technology programmes. To ensure quality standards of the training providers, TESDA requires that 60% of the graduates should find employment within a year and that graduates need to undergo competency assessment (Legaspi, 2012).

Technical and vocational education has also been introduced in selected high schools through the Strengthened Technical and Vocational Education Program (STVEP) by the Department of Education in 282 public secondary schools in 16 regions which is in line with the objectives of the Education for All (EFA) global movement, Philippine Millennium Development Goals, and the 10-Point Agenda of the Philippine Government (Valles, 2012).

STVEP’s main goals include providing high school graduates with opportunities to acquire certifiable vocational and technical skills that would allow more options in pursuing their post-secondary careers such as college education, short term technical courses, entrepreneurship courses, to apprenticeship leading to employment (Valles, 2012). STVEP intervention strategies include the development of competency based curriculum and instructional materials, capability building programmes, provision of tools and equipment, provision of infrastructure/facilities’ support, provision of competency assessment subsidy, provision for additional teacher plantilla items, provision for increases maintenance and other operating expenses. STVEP also involves strategic partnerships with different agencies through mechanisms such as co-financing, co-sharing, of resources/expertise, consortium, scholarship programmes and training activities, Adopt-a-School or Adopt-a-Student program, etc. The agencies involved include Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (SEAMEO INNOTECH), Technical Education and Skills Development Authority (TESDA), Technical and vocational institutions, universities, and colleges offering techvoc specialisations, local government units, non-government, private institutions, business sector (Valles, 2012). The partnerships that came out of the STVEP implementation is one way of minimising the job skills mismatch in the Philippine labour market thereby addressing the problem of unemployment and underemployment (Valles, 2012).

Though both education and training and labor market related-reasons are determinants of skills gaps and employability in the Philippines, education and training is clearly the main source of academic and a key source of generic and technical skills which are important in the transition to the labor market. The following general policy recommendations are mentioned in the World Bank report (Gropello et al., 2010, pp 20-21) to improve the responsiveness of the supply of skills to the demand and needs of the labor market:
• more international benchmarking of institutions and students
• strengthening generic or life skills in the curricula of all education and training levels
• better articulation of the different pillars of the skill supply system through overall governance, a strengthened skills certification and education and training quality assurance system and appropriate pathways and bridge across different types of institutions
• more flexibility in curriculum and academic decisions
• closer links between postsecondary and tertiary education and industries
• improving the quantity and quality of the information on the labour market.

When it comes to specific policies, the same study (pp. 21-22) has the following recommendations (for details, please see the document):

For higher education:
• improve funding and incentives for upgrading faculty qualifications
• improve university facilities
• improve precollege preparation to improve tertiary outcomes
• institutionalise and systematise accreditation to promote quality of institutions and programs
• consolidate or close nonperforming institutions and publish information on performance
• related to quality assurance, although outside the direct sphere of action of higher education, revise certification policies to improve the match between professions and labor market needs
• foster university-industry links by:
  o institutionalising and accrediting on-the-job training (OJT)
  o gathering more information and subsequent strengthening consultative mechanisms between industry and academia
  o including industry input into curriculum design for relevant fields, promoting use of university labs by industry, promoting joint R&D projects, and licensing university-held patents
• undertake a thorough set of tracer studies to follow graduates to learn lessons about the relevance of their education
• improve funding mechanisms to expand access

For technical and vocational education
• induce greater participation of the private sector to reduce government expenditure while improving efficiency.
• Continue supporting community-based programs while reviewing the efficiency of some school-based ones
• Reduce government costs through the rationalisation of TVET providers
• Develop appropriate performance standards for TVET providers
• Update and enforce accreditation standards
• Foster closer school-industry links, in particular for school-based programs to improve the relevance of curriculum to labor market needs
• Increase industry participation in the TESDA board
• Improve targeting of financial assistance for TVET

The Department of Labor through the project JobsFit has identified the following recommendations as culled from the Final Report of the Presidential Task Force on Education (Philippine Bureau of Local Employment, n.d., pp. 10-11):

• Strengthen the partnership between the government, academe, and industry to improve the employability of graduates and address the skills mismatch. Key industry sectors are outsourcing, engineering, healthcare, tourism/hospitality, aviation, electronics and mining
• Resolve training inadequacies (trainers, program, up-to-date information, techniques, experience, hours, facilities, etc)
• Department of Education, TESDA, and CHED should develop a national qualifications framework to establish a system of equivalencies for basic, technical and higher education
• Develop and issue model ladderised curricula for disciplines and courses for in-demand jobs, locally and overseas
• Implement a program focusing on improving competency in English
• Include Department of Science and Technology in the consultation process and help strengthen the existing institutions in the development of higher level scientists and engineers
• Conduct benchmarking of the professional programs which seek international recognition and improve the capability of HEIs, SUCs and LUCs to equip students with the required skills and competencies for gainful employment
• Provide incentives for multinational companies which establish ‘Corporate Universities’ or ‘Career Opportunities for Advancement within their company
• Firm up collaboration on research, professional development, and sharing resources among the academe and industry (both local and international) and strengthen information exchange in critical and specialised areas, wherein data is made accessible to all.

Thailand

Employment Scenario
Based on the World Bank mapping of countries by development, Thailand is considered agrarian (majority of the population live in the rural areas) and aging (old-age dependency ratio is rapidly increasing). Its employment are mainly in agriculture (39.4%) and services (39.6%). In terms of occupational employment (see figure 6), 35.3% are skilled agricultural and fishery workers, 19.6% are service, shop, market sales workers, 11.8% are craft & related trade workers, 10.9% are in elementary occupations, 8.0% are plant, machine operators and assemblers, 3.5% are clerks,
and only 4.8% are professionals, 3.4% are technicians and associate professionals, and 2.6% are managers, senior officials.

Compared to the other four countries, finding work in Thailand has not been problematic with only 0.7% unemployment in 2013, but there is still a long way to go toward the millennium development goal target of "decent work for all" (United Nations Development Programme, 2014).

**Skills Issues**

APEC reported that Thailand’s human capital formation has not kept pace with economic growth (Iredale et al., 2014). The higher education system does not produce the number and quality of graduates that are currently required or will be in the future. For example, it was reported that in 2010, 14,652 engineers were produced in Thai universities but the predicted demand was 100,000 (Economist Intelligence Unit, 2012, p 46 as cited in Iredale et al., 2014). An APEC survey (no date, but could be 2009 or 2010 based on the discussion) on labour market signalling showed that Thailand is experiencing a shortage on laboratory technicians, production or machine operators and engineers. Thus, while students are concerned whether the current education system equips them with skills needed in the labour market, the planners are concerned whether the education system equips the country with the human resources needed to prosper in the new global environment (United Nations Development Programme, 2014). There are also growing complaints from employers that schools and universities are not producing people with the skills that they need. A study on the Japanese manufacturing industry in Asia found that Japanese firms in Thailand were more likely to complain about difficulties of recruiting regular staff, middle management and engineers; and that Thai engineers found to lack practical skills and language ability (United Nations Development Programme, 2014).

Based on a government study in 2005, the workers produced by the vocational education system could not match the demand of the country as many students decide to move on to study at the higher education level because remunerations are small when qualification is vocational (Gerawatanakaset, 2008). With the increase in demand for tertiary education because of the wage premium, the education system has responded by providing more courses and degrees, but not always of the right kind, and not always of the right quality. Too many have taken humanities and social sciences, and too few science and engineering courses (with proportion of 70:30). Thailand Human Development Report 2014 noted that as more graduates are of poor quality, the variation in graduate pay has widened. There are also growing unemployment of graduates even in science and engineering which are in high demand (United Nations Development Programme, 2014).

Thailand is aware of the low level competency in English language in the country. A survey done by the Thailand Productivity Institute shows that English language, IT capability, numeracy, are the top 3 skills that employers most find lacking.
Sources of the issues

Thailand Human Development Report 2014 (United Nations Development Programme, 2014) reports that for several decades Thailand’s education system has struggled to keep pace with the country’s rate of development. There were major education reforms during each decade, but critics have claimed that those changes were not sufficient. Quantity-wise, Thailand has made great progress over the past two decades: doubling of gross enrolment in upper secondary to 70% and tertiary to 56%, its education spending is higher than other ASEAN countries except Malaysia and Brunei though lower than OECD levels, but quality is a concern (United Nations Development Programme, 2014). A study by Thailand Development Research Institute in 2011 showed that the poor education quality resulted from a lack of accountability on the part of teachers, school directors, and administrators up to the minister of education. The Institute recommended decentralisation of control of education, including more freedom for institutions to innovate, more involvement by parents, and an incentive system that rewarded or penalised teachers and administrators on the basis of the results achieved by students on standardised tests.

Some of the identified factors plaguing vocational education and training include lack of clear directions in vocational education, heavily overloaded teaching personnel, students lacking sufficient basic knowledge due to weak academic background, minimal cooperative activities between institutions and industry and a lack of standards for several professions (Gerawatanakaset, 2008). Curriculum also lacks balance between theory and practice, which is another reason undermining the quality of graduates. In the past round of educational reform, the vocational stream was neglected (United Nations Development Programme, 2014). That has resulted in high teacher turnover, not attracting good students, course content not adjusted to the changing needs of the labour market, excessive concentration on technical skills and little or no attention to other skills.

Responses

Thailand’s education policy framework was formulated based on national frameworks and other policies, namely, the 11th National Economic and Social Development Plan, the 2nd 15-year long range plan for higher education (2008-2022), 11th Higher Education Development Plan (2012-2016), overall government and the Ministry of Education’s policies. The education goals emanating from these policies and plans include reform of the education system, teacher and education personnel development, enhancement of education quality, accessibility to education and lifelong learning, employability of graduates and enhancement of competitiveness.

One of the specific actions by the Ministry of Education under the Commission on Vocational Education was the launching of the dual-system in which vocational colleges collaborate with industries to produce vocational graduates. 268 of the 416 institutes participated and in 2012 37,694 graduated by this system but this represents only less than 1/10 of total graduates and about ¼ of all vocational colleges (United Nations Development Programme, 2014), thus upscaling and continued improvement are therefore still needed.
Also, the Skills Development Promotion Act of 2002 has the following measures to encourage enterprises to establish themselves as training providers, and conduct workplace skills development (Wiwaha, 2012, p. 98):

- Income tax exemption of up to 200% of the training costs
- Assistance from the Department of Skill Development in providing training for trainers, skills standard testing providers, supervisors and others as well as on curriculum and equipment development
- Consultation service from the Department of Skill Development on skills development activities
- Exemption on import duty and value-added tax (VAT) for tools and machinery brought into the country for training purposes
- Deduction on utility charges for electricity and water bills up to two times the amount of training expenses
- Other privileges indicated in the Ministerial regulation.

Gerawatanakaset (2008) in his study on the significant influencers on the vocational education system, proposed a strategic plan for improvement of the system, as follows:

- Create public awareness of how important the vocational education system is, and decentralise the power in vocational education management
- Consider the nation’s economic and social development plans in vocational education planning to ensure that quantity and quality of workforce suit the country’s demand
- Develop vocational education networks between government and private especially in highly demanded occupations, and strengthen the industry sector through cooperative networks
- Develop and/or upgrade technological skills and teamwork attitude of the present workforces
- Develop curriculum taking into account the direction given by nation’s economic and social development plan
- Improve the image and value of vocational education; private sector needs to be involved in the training, and government needs to incentivise the private sector to be involved in the vocational education; and salary adjustments and career advancement needs to be facilitated.

At the tertiary level, the Ministry of Education commissioned a study with the following recommendations to raise the quality of universities:

- Setting minimum standards for student entry
- Setting quality control standards for private universities
- Seeking corporate sponsorship for endowed chairs in universities of technology
- Identifying centres of excellence for increased research funding, especially in public and autonomous universities
• Increasing networking and cooperation, especially among the weaker institutions (United Nations Development Programme, 2014)

In 2013, the Ministry of Education has drawn up an education plan in preparation for the ASEAN Community and has five key objectives:

• Prioritise education and facilitate access including remote learning, community learning centres and use of new technology
• Invest in developing human resources, especially English language capability (since 2011, the Ministry of Education has paid attention to the promotion and upgrading of the English language with 54 models schools and a budget of 300,000 bhat for the initial year)
• Develop quality of vocational education to meet demands of domestic industry
• Develop ICT for education, and ICT skills for students
• Promote learning in science and technology at every level.

In addition, two special projects are planned for 2013-2018, first is improving the skills training, language teaching, occupational capacity, curricula, and research with a budget of 34 billion bhat; and the second is to develop selected regional cities as centres for international education with budget of 11 billion for upgrading curricula, developing human resources and networking (United Nations Development Programme, 2014). Thailand is also developing a national qualifications system that specifies learning outcomes or performance competency and cover academic, vocational, and dual vocational training, and intends to promote lifelong learning and facilitate mobility in education and career development. At least 10 frameworks in higher education have been completed and about 23 are in progress (Kanvong, n.d.).

Given the current education strategy of emphasising improvement of English-language capability, upgrading of quality at all levels, overhaul of vocational stream, and development of Thailand as educational hub, the Thailand Human Development Report (United Nations Development Programme, 2014) mentioned that though these priorities make sense, they need stamina for implementation with the following suggestions (pp. 30-31):

• Sustain support for the programmes to improve the English language capability
• Promote interactive learning especially with regard to skills that are useful in the ASEAN context
• Make improving equity in access to education and quality of education a strategic priority and conduct research to evolve appropriate policies
• Consider ways to increase accountability for education quality, particularly through incentive systems, decentralisation, and increased roles for parents and community leaders
• Pursue the strategy to become an educational hub within ASEAN both because it challenges the education system to improve quality, and because
Skills Issues, Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam

it will strengthen ties with neighbouring countries, but do not allow this strategy to prejudice plans to improve the national system.

- Accelerate the development of the National Qualifications Framework as well as a competency-based occupational qualifications standard and a professional qualifications standard
- Increase facilities for retraining in mid-career in order to ensure the skill base can adjust to the rapidly changing requirements of the labour market in the context of globalisation
- Support actions under the ASEAN Socio-cultural Community to coordinate efforts to develop human capital.

Vietnam

Employment Scenario
In terms of development level (see Table 2), the World Bank characterised Vietnam as agrarian (majority of the population living in rural areas), urbanising (agricultural modernisation and rural-urban migration rapidly taking place), formalising (an urban middle-class coexisting with a large share of informal employment), aging (rapidly increasing old-age dependency ratios). With economic liberalisation and accession to World Trade Organisation in 2007, Vietnam has increasingly integrated into the world economy. It has relatively low unemployment rate of 2.0% in 2013. Employment is largely in agriculture with 47.5% while employment in services is 31.5% and industry 21.1%. In terms of occupational employment (see figure 6), 40.5% are in elementary occupations, 16% are service, shop, market sales workers, 12.7% are skilled agricultural and fishery workers, 11.8% are craft & related trade workers, 7.3% are plant, machine operators and assemblers, 1.6% are clerks, and only 5.5% are professionals, 3.4% are technicians and associate professionals, and 1% are managers, senior officials.

The country is experiencing major transitions—from central planning to market economy starting in 1986, and from agricultural to modern industrialised economy. It is also experiencing demographic transition towards aging society which implies that with youth population shrinking, Vietnam cannot continue to rely on the quantity of the workforce to advance these transitions but on the productivity of the workforce (World Bank, 2013). It will also have to shift away from a content-centric education system to one that promotes innovation, problem-solving, entrepreneurship, communication, and other soft-skills to promote self-employment.

Skills Issues
The Vietnam Development Report (World Bank, 2013) highlighted that with economic liberalisation and modernisation, labour demand in Vietnam is shifting from predominantly manual and elementary jobs towards more skill-based non-manual, from jobs involving largely routine tasks to non-routine tasks, from ‘old’ jobs to ‘new’ jobs that requires ‘new’ skills (World Bank, 2013, p. 7). As the Report pointed out, these ‘new’ jobs are already present in Vietnam but employers find it difficult to find
the right workers. Despite the impressive literacy and numeracy achievements among Vietnamese workers (Vietnamese students also do well in OECD’s PISA), many firms still report shortage of workers with adequate skills as significant obstacle to their activity (World Bank, 2013). Employers are in particular looking for job-specific technical skills in both blue and white collar workers. In terms of cognitive and behavioural skills, working well in teams and being able to solve problems are considered important for blue collar workers while critical thinking, problem solving and presentations skills for white collar workers (World Bank, 2013). In the same report, a majority of the employers said that hiring new workers is a challenge because of inadequate skills of job applicants (gap), or scarcity of workers in some occupations (shortage). The skills gap is particularly high among applicants for jobs in technical, professional, managerial occupations that are more likely require workers to conduct analytical, non-manual and non-routine tasks. Skill shortage is common among more elementary occupations (World Bank, 2013).

Over 65% of the labour force are considered unskilled resulting to shortages of skilled workers, managerial workers (middle managers), law professionals, technologists and engineers (Hoang, 2012). With rural labourers and their low education level accounting for the 75.4% of the labour force, the need to upskill them is imperative to address problems in agricultural sector and support industrialisation and modernisation (Hoang, 2012). A World Bank Report in 2008 had reported the increasing need for higher education graduates as the demand for skills increased due to inter-industry employment changes, capital accumulation and skill-biased technological change. The perceived skill shortage was due to poor quality and relevance of skills as the report highlighted that higher education graduates lack some of the skills needed for good performance in the workplace.

In Vietnam, the demand for graduates is higher than the supply but many graduates end up unemployed or underemployed and complain of difficulty in finding jobs, while the employers complain of the lack of graduates with appropriate knowledge and skills (Tran, 2012). Previously and as needed by the central planned economy that requires loyalty, hard work, and obedience, the employers now are looking for graduates that can understand foreign language especially English, good communication skills, teamwork and personal skills such as initiative and being proactive (Tran, 2012). Thus, for Tran, this reflects a challenge for the education system to change teaching philosophy and practices to enhancing graduate employability skills and meet the requirements of the contemporary industries (Tran, 2012). The higher education reform in Vietnam acknowledges the need for ‘industry’ ready graduates with a broader range of higher level and adaptable skills such as critical thinking, initiative and enterprise, information literacy, planning and management skills, capacity for lifelong learning, flexibility in preparing for jobs, foreign language and business skills (Harman & Nguyen, 2010 as cited in Tran, 2012). As a survey among the students, graduates and employers has shown, students and graduates perceive that what is lacking in their education is the soft skills, strong English language skills, and practical experience at work (Tran, 2012).

The study did not mention what the employers think was lacking among their hires, but only mentioned what they look for in employees and include work-related or enterprise skill, life skills, and personal qualities suitable for the job, attitude (e.g.,
Students in vocational schools reported difficulty adapting the technical skills they learnt at school to real work environment, partly because of outdated machineries being used for training is no longer applicable to working environment (World Bank, 2013).

**Sources of the issues**
The 2014 World Bank Report on Vietnam (World Bank, 2013) reported that the skills system in the country, as in many other countries, is suffering from disconnects between employers, students and universities and vocational schools. The disconnect is a result of imperfect and asymmetric information among actors, their inadequate capacity, and weak incentives to make good use of information (World Bank, 2013). The same report has found out that prospective students in rural areas tend to have more limited information when making education and job choices than in urban areas. Education and training providers suffer human and capacity constraints as staff capacity has not caught up with the expansion in the number of students and institutions. The lecturers at the university with doctorate degrees is only around 10%, and 40% with masters degrees (World Bank, 2013). Managerial capacity also is an issue that was found out to be a constraint in the ability to deliver effective training services in vocational training institutions (CIEM and World Bank, 2013, as cited in World Bank, 2013). Quality of the training in terms of course content and their applicability, and the outdated machineries used for training has also been raised as sources of skill issues in Vietnam.

**Responses**
For several decades, skills development has been regarded as important policy for sustainable development (Hoang, 2012). Vietnam’s main aims for vocational training under the Socio-economic Development Strategy 2011-2020 are as follows:

- Developing strong vocational training systems to satisfy development requirements of key economic sectors
- Improving learning conditions for ensuring quality vocational training
- Developing vocational training for fostering standardisation and modernisation
- Building mechanisms and policies to create conditions for enterprises to become important actors in vocational training
- Continuing to improve vocational mechanisms, especially financial policy
- Ensuring resources for developing vocational training
- Strengthening international cooperation in vocational training
- Establishing a recognition system for national occupational skills standards and assessment and issuing a national occupational skills certification

Aiming to be an industrial country by 2020 according to Vietnam’s Socio-economic Development Strategy of 2011-2020, the government forecasted that share of agricultural workers would drop to 30% of the total workforce resulting to higher demand for technical workers. Thus, to meet this demand, vocational training needs to train high-skilled technical workers who are directly employed in business and production, and widening the scope of vocational training for rural labourers. The
total direct investment in education/vocational training is expected around VND1,225 -1,300 trillion (Hoang, 2012).

Among the government initiatives include: target of 1million trained in vocational programmes, vocational training programmes to create jobs for the youth and the women, human resources development programmes for the textile and garment industry as this industry suffered much from the global economic downturn. The government also has vocational training programme for the rural labourers with a budget of US$1.4 billion approved in 2009 for projects till 2020. Targets include training 5,000,000 rural workers between 2011 and 2015, and 6,000,000 rural workers between 2016 and 2020 with a rate of at least 80% employment rate after training, training and retraining civil servants in communes (Hoang, 2012). Vietnam’s Human Resource Development Plan 2011-2020 has the objective of developing the workforce with higher quality skills in all areas giving priority to focus areas and development of cohort of high-quality teachers to train highly skilled personnel (Hoang, 2012). In term of numbers, the aim is to increase the share of trained and skilled personnel from 40% in 2010 to 70% in 2020. The aims for different sectors in terms of increasing the trained workers are as follows-- in agriculture, forestry and fishery, from 15.5% to 50%; in industry, from 78% to 92%; in construction, from 41% to 56%; and in services, from 67% to 88%.

In order to meet the demand for training, additional 70 universities and 88 colleges between 2011 and 2015, and by 2020, a total of 259 universities and 314 colleges will be established. By 2020, a network of vocational training institutions will include 230 higher vocational colleges, 310 vocational secondary schools and 1,052 vocational training centres.

The Vietnam Development Report 2014 (World Bank, 2013) noted that education system in Vietnam has a strong track record in producing good foundational skills but faces greater challenges in producing the advanced skills that will be increasingly demanded in coming years. With this view, the report offers three steps for a holistic skills strategy namely, promoting school readiness through early childhood, building the cognitive and behavioural foundation in general education, building job-relevant technical skills through a more connected system, examples of policies to concretise these strategies are in table 4.

Table 5. A Framework for Skills Development in Vietnam

<table>
<thead>
<tr>
<th>Objective</th>
<th>Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promoting school readiness through early childhood development</strong></td>
<td></td>
</tr>
<tr>
<td>Early childhood development for children aged 0-3</td>
<td>More systematic promotion of breastfeeding and child stimulation through parallel family-based interventions in hospitals after birth, in local health stations, in communities, and through communication campaigns; Social assistance to enable poor parents financially to make better choices for their children</td>
</tr>
<tr>
<td>Preschool for children aged 3-5</td>
<td>Universalize access to full-day preschool; Translate modern and child-centered curriculum into quality provision across all classrooms through upgrading of the competence of the current teaching workforce</td>
</tr>
</tbody>
</table>

**Building the cognitive and behavioral foundation in general education**
<table>
<thead>
<tr>
<th>Skills Issues</th>
<th>Sources of Skills Issues, and Policy Responses in Five ASEAN-member Countries: Indonesia, the Philippines, Thailand, and Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>More schooling for all</strong></td>
<td>Increase transition rates into secondary education through fee waivers and direct cash support for less well-off students; Expand formal full-day schooling to reduce extra classes and ensure more varied formal curriculum</td>
</tr>
<tr>
<td><strong>Better schooling for all</strong></td>
<td>Modernize curriculum, teaching methods and student assessment with stronger focus on critical thinking, problem-solving and behavioral skills; Equip teachers with tools to teach modernize curriculum through reformed in-service teacher professional development</td>
</tr>
<tr>
<td><strong>Schooling that involves parents and communities more</strong></td>
<td>Empower parents’ councils in schools and involve them in decision-making; Strengthen school-community linkages in disadvantaged contexts, e.g. through ethnic minority teaching assistants and greater involvement of parents</td>
</tr>
<tr>
<td><strong>Building and updating technical skills in post-secondary education and training</strong></td>
<td><strong>Better information</strong> Initiate and incentivize formal or informal skills coordination and partnership forums at national, provincial and local levels between firms and education and training providers; More use of graduate tracer surveys; Address information barriers in rural and remote areas; Better dissemination of available labor market information; Tackling corruption in education</td>
</tr>
<tr>
<td><strong>Right incentives</strong></td>
<td>Increase de facto autonomy of providers; State to shift from management to Stewardship of the system; Focus on outcomes, not inputs: Stop setting enrolment quotas, define quality and occupational skills standards and assess and certify graduates;</td>
</tr>
<tr>
<td><strong>Adequate capacity</strong></td>
<td>Invest in faculty/teacher training; Leadership and Management capacity to exercise autonomy at institutional level retaining graduates in academia; Scholarships</td>
</tr>
</tbody>
</table>


The same development report (World Bank, 2013) also pointed out the importance of governance as greater autonomy of decision making in education and training institutions coupled with clear accountability for quality is a critical precondition for enhanced linkages and partnership with industry, thus, the role of the government may need to change from direct management towards stewardship of the system and use regulative and financing tools to steer the system, and added that the country’s principal challenge in higher education and vocational training is to translate a legal framework for greater institutional autonomy into de facto autonomy (World Bank, 2013).
Regional Responses to the Skills Issues: Recommendations by International Organisations

International cooperation agencies operating in the region have done many studies on skills with recommended policy options, and also executed projects to address the skill issues. There are three identified approaches by international cooperation agencies in skills development and strategies in Southeast Asia namely, the development approach, poverty reduction approach, and governance approach (Langstaff, Weyer & Carton, 2007 as cited in OECD, 2009). The discussion that follows highlights the recommendations from key international agencies.

An OECD Programme on Local Economic and Employment Development report (Jagannathan, 2012) summarised the relevant policy options vis a vis the skills issues as follows:

a. Pathways. Skills training connects with lower and higher levels of education, thus, policymakers need to consider flexible pathways between different levels and types of education;

b. Responsive and diversified skills training systems. TVET institutions to develop responsive mechanisms to different industry specific needs: high, medium and low-level skills;

c. Flexible and modular approaches to skills. With technological progress, level and types of skills required also evolve, thus, skills training needs to become more modular with opportunities for refreshing training and lifelong learning;

d. Youth aspirations. Trends indicate that unemployment and weak labour force participation is more of a challenge for youth than for adults, (see Figures 2 & 3). Skills training systems are challenged to connect up with quality jobs that meet youth aspirations;

e. Improving market signals for jobs. Many countries have implemented labour market information systems such as surveys and tracking studies. But tools can be improved by capturing market trends for jobs and industry requirements for skills.

f. Indicators for productivity of the workforce to assess training results. Training systems to strengthen employment outcomes and enhance productivity of worker

g. More ideas to develop and implement strategies for training relevant to SMEs and informal labour markets.

The OECD/ILO Report (2011) has also provided a set of strategies related to skills development and training as follows:

- Create partnerships to integrate data and information from different sources to better carry out employment services
- Link labour market information with skills development
- Involve employers in the design of training programmes and engage industry to deliver training to reduce specific-industry type skills gaps
- Foster skills utilisation of the workforce
• Pursue strong commitment from government of ensuring that education system produces young people with strong intermediate skills, especially in science, math, IT and literacy, while employers in strategic sectors commit to developing high-level science and technology skills. Workers' organisations to commit to high skill development and continuing lifelong learning, and tertiary educational institutions to provide appropriate academic knowledge underpinning practical skill formation at the workplace.

APEC (Iredale et al., 2014) found out that labour market data collection systems do not collect adequate information to identify skills imbalances, thus, it suggests that economies assess their needs and priorities in relation to the development of labour market monitoring systems. This way, the systems improvement can be facilitated when it is used for setting priorities. Specific recommendations include developing market monitoring systems that are in line with ILO’s occupation and industry classification for consistent comparison, publish it online in a format that can best inform stakeholders, and promote the value of knowing the skills imbalances.

The manpower requirements approach used for labor signalling in order to predict the present and future supply of manpower had proved inaccurate and unreliable thus, gradual departure from this approach happened in the 1970s and 1980s (APEC, 2012). A labour signalling system should be dynamic to the ever-changing economic landscape capturing information on wide-ranging issues including social benefits, educational investments and training costs (Middleton, Ziderman, & Van Adams, 1993, as cited in APEC, 2012), and must have the data to accomplish the following aims and accompanying information (p. 15):

1. Aid in the decision-making of private individuals as to how much and which type of educational training investment to make
   a. Wage trends
   b. Job vacancies and rates
   c. Graduate placements
   d. Enrolment data
2. Aid in the management of training systems
   a. Reverse tracer studies to identify levels and combinations of skills and qualifications acquisition leading to certain occupations and the costs for acquiring those skills
   b. Rates of return of skills acquisition choices
   c. Measurement of cost effectiveness
   d. New industry trends and productivity rates
3. Improve labor market efficiency
   a. Wage differentials and job characteristics
   b. Internal labour markets
   c. Public subsidies for training within a particular industry
   d. Information on labour codes
   e. Evidence of low labour mobility
   f. Obstacles to wage flexibility
4. Serve as a framework for government planning on public investments in training
   a. Present and future industry demand for specific professions and workers
   b. Distribution of labor supply by skill level and specialisation
   c. Private training capacity
   d. Programs offered by educational institutions
   e. Skill supply and demand imbalances
   f. Market imperfections and continuing structural changes

OECD (Martinez-Fernandez & Powell, 2009, p. 55) reported the conditions for high skill development in the East Asian Tigers as follows:

1. Strong commitment from government at all levels in the process of skills formation
2. Ensure that the education system produces young people with strong intermediate level skills, especially in the areas of science, math, IT and literacy
3. Groups of employers in strategic economic sectors recognise and are committed to developing high level science and technology skills
4. Skill formation in the workplace is regulated by government intervention to ensure minimum standards and long term investments are made in strategic areas
5. Workers organisations are committed to high skill development and continual life-long learning.
6. Appropriate academic knowledge is provided at tertiary level education institutions in order to underpin practical skill formation in the workplace

**European Development Cooperation**

The European Commission (EC) (European Commission, 2013) provided a set of recommendations for future European Commission Development Cooperation on TVET and Skills Development that besides taking into account the achievement of MDGs goals in 2015, it also advocate that the post-2015 agenda should define TVET and SD objectives to improve social inclusion, economic growth, and sustainable development. These recommendations also came out from the results of the stock-taking of the current state of affairs in TVET and skills development within the EC’s development cooperation with partner countries:

1. **An EU TVET and Skills Development strategy for development cooperation** – adopting common measures under four priority areas: implementation of common tools, promotion of quality and attractiveness of VET; development of links with the labour market, and enhancement of European cooperation
2. **Associating stakeholders throughout the TVET chain** – new programmes leading to qualifications recognised by employers take years to yield, and given that relevance of TVET is increased with private sector involvement in the delivery, future EC projects foresee components aimed at developing
incentive schemes and direct support to private suppliers, for school-based and workplace training programmes and modern internship schemes supported by tripartite national councils and qualifications authorities

3. **Reinforcing the demand-side** – situation analyses focusing on the demand side should be carried out before the identification and formulation phases. Projects with focus on active labour market policies should be encouraged and resources to be made available to support countries in establishing or strengthening their labour marker information and analysis systems, public employment services, private employment strategies, establishing career guidance mechanisms at school level with participation of social partners and enterprises. Incentive schemes for training at the workplace, employment and training funds and job insertion schemes for youth and vulnerable groups should gain importance in comparison with the typical supply side interventions.

4. **Sectors and innovation** – TVET reforms can no longer stick with the classic approach of hard trades such as mechanics, electricity, automotive, a bit of ICT. In order to respond to the challenges of globalisation, technology, demographic changes, sustainable development, overcoming skills mismatches and shortages, EC should include components that anticipate and build competencies for future needs with development of new curricula linked to tertiary sector and green technologies.

5. **Gender equality and empowerment of women as development actors and peace-builders is to be mainstreamed in all EU development policies and programmes** – in all future programmes, the gender perspective in all trades and industries should be clearly indicated as a special concern at the design stage and identified as priority.

6. **Access priority to the vulnerable, marginalised, and with special needs** – access should be prioritised not only from the systems perspective (legal basis, regulatory frameworks) but also from the perspective of delivery. Countries that have ratified international covenants or standards related to vulnerable groups could be supported in translating them into operational programmes. With the prevalence of high rural population in many of the assisted countries, priority should be given to rural employment in its broader connotation of agricultural and off-farming jobs. Priority to community-based empowerment through skills development should be considered as a distinctive feature of these interventions. Urban poverty is associated with working conditions, and an aspect that has been neglected in the assessed projects and should be reconsidered as special design concern.

There are a total 18 items of recommendations and the remaining refer mostly to the management of resources, approaches in funding, communications. Examples of such include promoting lean organisation and management, less and simpler instruments, establishing a monitoring and reporting system that provides direct access to member states and beneficiaries, to give more say to the delegations in prioritising and managing TVET thematic programmes in the countries, not duplicate and financed those that are in abundance such as reports, evaluations, audits and
reviews, but do more of those up-stream baseline studies and situational analyses related to the identification and formulation phases seemed that are currently less abundant; and improvement of the capacity and functioning of the exiting centralise repository (European Commission, 2013).

**Regional Networks**
Tullao et al (2015) have reported the commitments and networks in the region to improve quality of education and skills through encouragement of cooperation in education services sector. These efforts include AUN-SEED-Net, SEAMEO, APEN and AEC through AFAS.

1. **ASEAN University Network (AUN)** – Southeast Asia Engineering Education Development Network (SEED-Net) which was established in 2001 to promote the development of engineering education in the ASEAN. It promotes collaborative research with industries and member institutions. It also give scholarships for PhD and Masters and research grants for alumni.

2. **Southeast Asian Ministers of Education Organization (SEAMEO)** was established in 1965 to promote the regional cooperation in education, science, and culture. Besides research and development in those areas, it also conducts training programs through its 15 specialist institutions in 8 member countries in areas of agriculture and rural development, culture and history, education (including higher education, language education, school management, innovative education and information and communications technology for education, open and distance education, science and mathematics education, vocational and technical education), tropical biology and natural resources, and tropical medicine, public health and nutrition. It has the regional center on higher education in Thailand, and regional center on vocational education and technical education and training in Brunei.

3. **Asia Professional Education Network (APEN)** was established to be the core of collaboration among organisations through project-based learning (PBL), and to produce global professionals who can contribute to the enhancement of the Asian society. It was founded by universities from China, Japan, Korea, Vietnam, in June 2011 and thereafter, universities from Cambodia, Malaysia, Thailand, Malaysia and Laos joined.

4. **ASEAN Framework Agreement on Services (AFAS)** – signed in 1995, its intent is to facilitate free flow of service in the regions, and among the terms, the signatories need to mutually recognise the education, experience, requirements, licenses, and certificates granted by other member-states. The recent establishment of ASEAN Economic Community (AEC) will further up the liberalisation efforts as there is substantially no restriction to ASEAN services across national borders. The implications of AEC to education are discussed on page 13, above.
Conclusion
This analysis of the skills gaps pointed to disconnects between what the education system is producing and what the labor market needs, and these are driven by gaps in labor market information and accessibility, inadequate incentives, capacity constraints, access to fund skills acquisition, weak policy implementation and inappropriate institutional arrangements, among others. The five different countries have crafted policies to address the skills issues, however issues remain due to implementation issues. The discussion on the effectiveness of responses of the countries is another paper of its own and would be useful in finding out what has been achieved, the shortfalls, and how to move forward to achieve the set goals. Having a mid-term review on the implementation by the countries concerned is a crucial action to ensure effectiveness and efficiency of the resources.

Making skills work for the economy needs cooperation and support from the different stakeholders such as the employers, schools, universities, students and parents. As the World Bank Report (2013) said on Vietnam “Firms and universities need to build close partnerships. Parents need to become more involved in their children’s schooling. Students need to expose themselves to the world of work even prior to their graduation. In rural areas, all parties need to ensure that children from disadvantaged backgrounds have the opportunity to meet their full potential. The role of government is to facilitate this change in behaviour by helping to ensure a better information flow between all the actors, to address capacity constraints including financing capacity, and to set the right incentives by freeing up universities to partner more effectively with businesses.” (World Bank, 2013, p. 9).

The foregoing discussion has shown how training and skills are important aspect for development through jobs. But we cannot isolate and forget the macroeconomic and socio-political context that affect (indirectly or directly) skills and jobs. This relationship is shown below in a diagram (Figure 7) using the World Bank Report 2013 conceptual tool on jobs with modification. The diagram shows the importance of jobs in development. But these development transformations (better living standards, higher productivity, and strong social cohesion) through jobs are supported by macroeconomic foundations, labour market policies, basic education, training and skills through higher education and continuing education. Though much ado has been said about education and skills, it is good to acknowledge that this area does not have all the solutions related to jobs such as growing wage disparities, skills mismatch or shortage. Nevertheless, education and skills are among the important tools for development.

Recommended policies and technical assistance have been developed and implemented to address the skills issues, but with the dynamic global economy, continuous improvement on skills development provision is needed. It is also imperative to find ways of creating more ‘good’ jobs not mere jobs. The World Economic Forum Global Agenda Council on Employment confirms, “job creation is key to tackling high and increasingly persistent unemployment in many countries. However, promoting jobs without paying due attention to their quality and to the skills required may only buy time and ultimately prolong the crisis.” (World Economic Forum, 2014, p. 5).
World Development Report 2013 has indicated that good jobs for development are not the same everywhere as it depends on the level of economic development of the country. For agrarian economies where many of the Southeast Asian countries belong such as Thailand and Vietnam, good jobs mean more productive small holder farming, and urban jobs connected to global markets. For urbanising economies (Indonesia, Malaysia, Philippines), good jobs mean jobs providing opportunities for women, jobs moving the country to the export ladder, jobs not leading to excessive congestion, jobs integrating rural migrants. For countries with high youth unemployment (Indonesia, Philippines), good jobs mean jobs not supported through rents, jobs not allocated on the basis of connections. For countries that are formalising (Malaysia, Vietnam), good jobs mean jobs with affordable social benefits, jobs not creating gaps in social protection coverage. For aging economies (Indonesia, Thailand, Vietnam), good jobs mean jobs keeping the skilled active for longer, and jobs reducing the cost of services to the elderly. Research and more efforts can be directed towards facilitating skills improvement (e.g. entrepreneurship skills, or skills for personal development) of the rural folks and farmers for off-farm industries and for better emigration prospects. Another economic context is the industry sector, for example, surveys showed that small and medium enterprises (SMEs) account for most employment creation in East Asia Pacific (Packard & Nguyen, 2014), but the lack of strong growth and further employment prospects is an issue that is worth researching on how skills strategies can play a role in supporting SMEs’ sustained progress and contribution to the economy.
Four major issues could be identified from the preceding discussion and these issues could be the areas where the Foundation can focus its efforts. These issues are:

- Low-esteem of TVET especially in Indonesia, Malaysia and Vietnam because of low quality, and in the Philippines, because of low-returns.
- Capacity constraints – human capacity and physical capacity can be strengthened.
- Skills development system coordination constraints.
- Lack of reliable and readily accessible labour market information.

Lastly, when we talk of skills in this paper, we use it in relation to employability. But employability is more than skills as it is culture dependent, context dependent, and not always verbalisable as individual knowledge is both tacit and explicit (Becket & Mulcahy, as cited in Tran, 2012). Thus, Tran raised the point that skills agenda can only address part of the skills issues. More so, some of employer’s complaints of skills shortage were due to their own practices of not employing high-performance work practices (i.e., inadequate pay, low training). Thus, although the idea of skills gap and shortages is associated with education failure, some could be result of employer’s self-inflicted practices (Cappelli, 2015). Also, few mismatch cases were found to be related to inadequate levels of experience and not level of education (Leibert, 2013 as cited in Cappelli, 2015). These extenuating factors can be considered at country level when developing and implementing policies addressing the skills issues.

Note
The views and opinions expressed in this paper are those of the author(s) and do not necessarily reflect those of The HEAD Foundation.

References


Green, A. E. (2012). *Skills for Competitiveness: A country report for (U)nited (K)ingdom*.


Luz, J.M. (2014). The ASEAN Economic Community and the free flow of skilled labour: A game-changer for higher education institutions, a presentation.


*Philippine Roadmap: Public Higher Education Reform. (n.d.)*


SMEs Development in Indoenesia. (2013). Indonesian Country Presentation, the meeting of the COMCEC Trade Working Group, Ankara, Turkey, June 20

Tran, T. T. (2012). Vietnamese higher education and the issue of enhancing graduate employability, 3(1), 2–16.


