



Towards a Skills Strategy for Southeast Asia

Skills for Post-COVID Recovery and Growth



OECD Skills Studies

Towards a Skills Strategy for Southeast Asia

SKILLS FOR POST-COVID RECOVERY AND GROWTH

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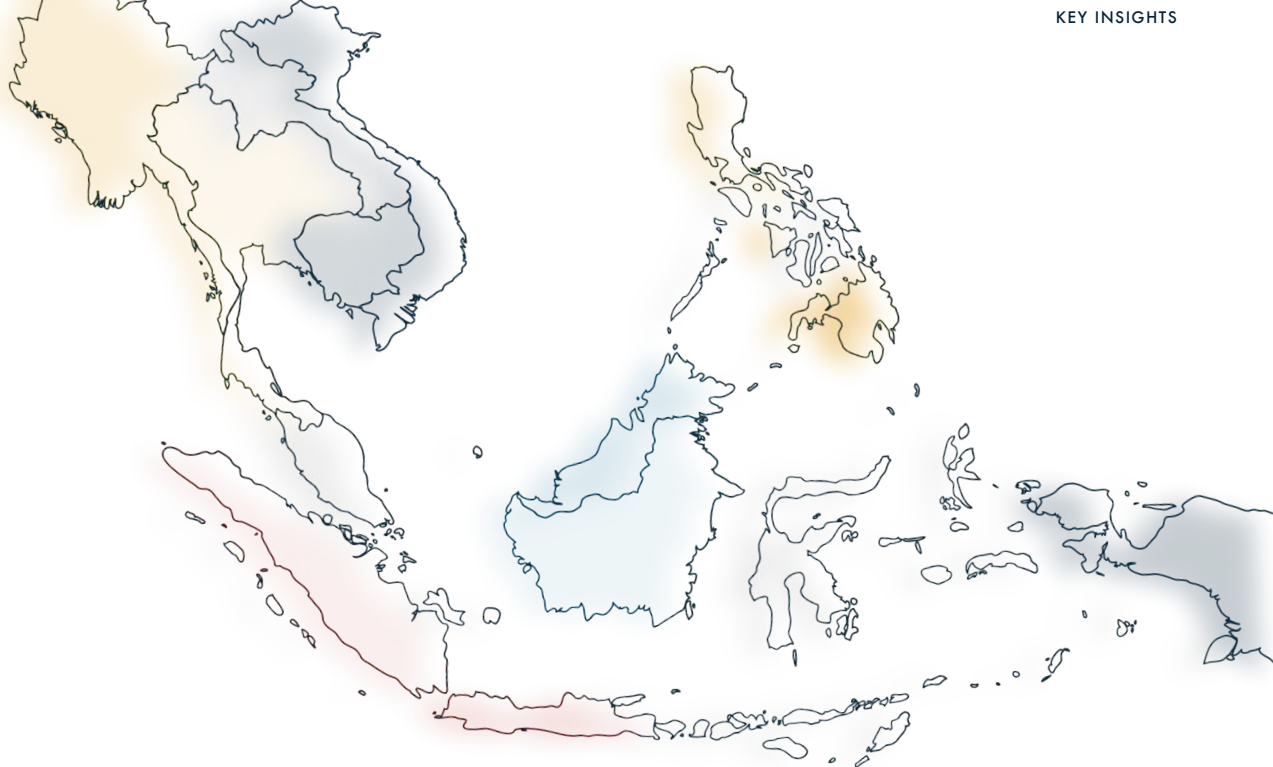
List of Acronyms

APT	ASEAN Plus Three	NGOs	Non-governmental organisations
ASEAN	Association of Southeast Asian Nations	PIAAC	Programme for the International Assessment of Adult Competencies
ECEC	Early childhood education and care	PISA	Programme for International Student Assessment
GDP	Gross domestic product	R&D	Research and development
GVC	Global value chains	SMEs	Small- and medium-sized enterprises
HPWPs	High performance workplace practices	STEM	Natural sciences, technology, engineering and mathematics
ICT	Internet communication technology	TVET	Technical and vocational education and training
ISCED	International Standard Classification of Education		

CHAPTER 1

Key Insights

This chapter provides an overview of the OECD Skills Strategy Southeast Asia project, which applies the OECD Skills Strategy framework as an analytical lens to analyse the skills performance of Southeast Asian countries. The chapter presents the key insights on the skills implications of megatrends and COVID-19, the development of relevant skills over the life course, the effective use of skills in work and society, and the governance of skills systems. A dashboard that visualises the skills performance of Southeast Asian countries and a select group of comparison countries is also featured.



Introduction

This policy note represents the output of the first phase of the OECD Skills Strategy Southeast Asia project, which applies the OECD Skills Strategy framework as an analytical lens to analyse the skills performance of Southeast Asian countries.

The project is divided into three phases.

PHASE 1 is the *Introductory Phase* and provides a high-level overview of the skills challenges and opportunities in Southeast Asia.

PHASE 2 is the *Regional Review Phase (tbc)* and provides an in-depth analysis of the skills challenges and opportunities in Southeast Asia.

PHASE 3 is the *Individual Country Review Phase (tbc)* and provides in-depth analysis of the skills challenges and opportunities at the country level in Southeast Asia, and provides concrete policy advice for improving skills performance.

This policy note provides a high-level overview of skills challenges and opportunities in the following chapters:

- 2** Responding to the skills implications of megatrends and COVID-19
- 3** Developing relevant skills over the life course
- 4** Using skills effectively in work and society
- 5** Strengthening the governance of skills systems

The key insights of each of the chapters are featured below.

Responding to the skills implications of megatrends and COVID-19

Megatrends in the form of globalisation, technological progress, population ageing, migration, climate change as well as unforeseen shocks, such as the COVID-19 pandemic, substantially influence the skills that people need to navigate a complex world. Due to rapid change and uncertainty, individuals need to develop skills throughout life and use them effectively. By investing in developing relevant skills and using skills effectively, Southeast Asian countries can overcome the challenges that these trends pose for economic growth and social wellbeing and, at the same time, take advantage of the opportunities these trends present for reshaping the world in a positive way.

Developing relevant skills over the life course

Developing relevant skills is an investment in a country's economic prosperity, social cohesion and broader well-being. Skills development takes place in diverse places, such as home, educational institutions, workplaces and communities, throughout the life course. While Southeast Asian countries have made great progress in increasing access to learning opportunities at all levels of education, more could be done to reduce drop-outs, raise the overall performance of students, and close the skills gaps between students of different socio-economic background and genders. As many employers face

difficulties finding workers with the right skills, access could be broadened to guidance services that allow students to make informed study and career decisions and tertiary education access could be improved in shortage fields, such as science, technology, engineering and mathematics.

Using skills effectively in work and society

Skills need to be effectively used in work and society in order to achieve the full benefits of the investment made in their development. Currently, across Southeast Asian countries too many people are not making full use of their skills. While participation in the labour market is relatively high overall, certain groups such as women, youth and immigrants can be less likely to be working and the incidence of work in the informal sector can be high. Furthermore, even among those who are employed in the formal sector, more can be done to make effective use of the skills they have developed. Greater adoption of High Performance Workplace Practices and improved development of professional management capacities could support the more effective use of skills at work and thereby increase productivity. Participation in civic life, such as volunteering and voting, could be raised across some Southeast Asian countries to foster a more inclusive and cohesive society. Demand for higher levels of skills could be stimulated by more investment in research and development as well as support for entrepreneurship.

Strengthening the governance of skills systems

Effective governance arrangements are the building blocks for improving Southeast Asian countries' performance in developing and using people's skills. Better co-ordination across ministries and levels of government on skills policies are needed to ensure that skills policies are coherent and mutually reinforcing. Stakeholder representation in formal engagement bodies could be increased, while additional efforts are needed to engage marginalised groups. Collecting, analysing and using skills information is a common challenge across countries due to data gaps, fragmentation of data sources and a lack of accessibility for targeted end users. Greater reliance on funding sources from employers and individuals needs to be balanced with equity concerns, so that access to skills programmes for marginalised groups is not hindered by their inability to pay.

Comparison countries

The Southeast Asian countries featured in the report include: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. In addition, five OECD benchmarking countries are also included and have been selected based on their skills performance and in order to have at least one each of the Americas, Asia, Europe and the Pacific. The OECD benchmarking countries are: Australia, Germany, Korea, Japan, and the United States.

CHAPTER 2

Responding to the Skills Implications of Megatrends and COVID-19

In light of the rapid pace of change in today's world, a high degree of adaptability is becoming more important for people to address the increasingly diverse challenges and seize emerging opportunities. Megatrends in the form of globalisation, technological progress, population ageing, migration, climate change and, while not a megatrend in itself but a significant shock event, COVID-19 substantially influence the skills that people need to face uncertainty and challenges, as well as navigate a more complex world. People who are equipped with a broad set of skills that are relevant to the needs of work and life can turn these challenges into opportunities and help shape the world for the better (OECD, 2019_[5]).

This chapter examines the implications of five megatrends and COVID-19 for the skills systems of Southeast Asia:

- Globalisation
- Technological progress
- Population ageing
- Migration
- Climate change
- COVID-19



GLOBALISATION

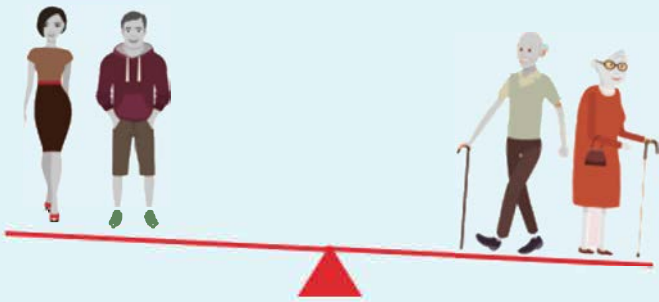
Global value chains (GVCs) and rising international trade

THE SKILLS IMPLICATIONS OF MEGATRENDS AND COVID-19



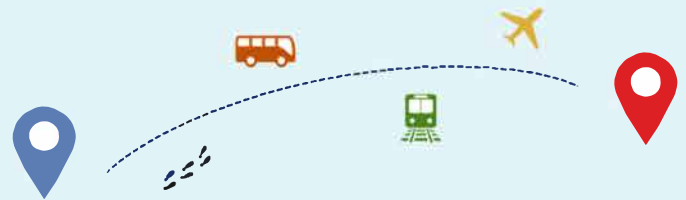
TECHNOLOGICAL PROGRESS

Automation and Digitalisation



DEMOGRAPHIC CHANGES

Population Ageing



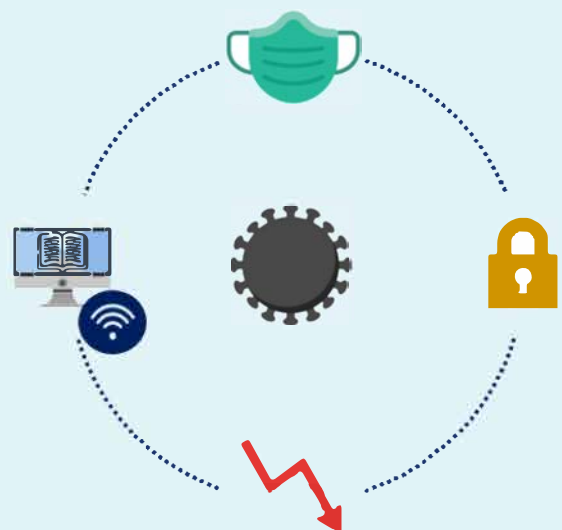
DEMOGRAPHIC CHANGES

Migration



CLIMATE CHANGE

Evolving regulations and green skills



COVID-19

Health crisis with economic and social repercussions

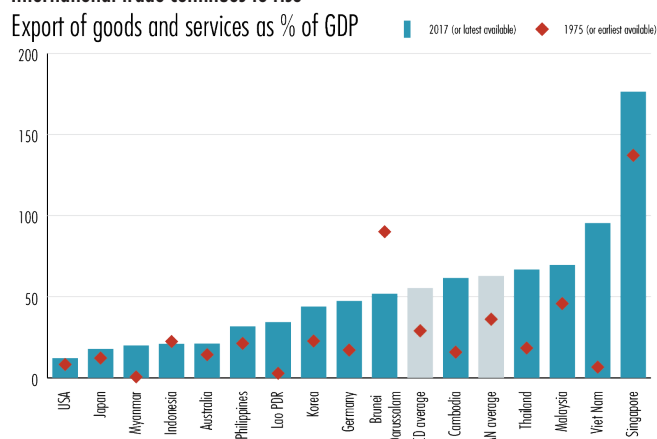
Globalisation

Globalisation has led to the emergence of global value chains (GVC) that allow different parts of the production processes to be performed in different geographical locations with important implications. Many Southeast Asian countries are now major players in the world market, both as exporters and importers (Figure 2.1), and have thus attracted significant GVC investments, in particular in services, trade, communication and manufacturing sectors. While in some Southeast Asian countries, GVC investments in manufacturing are in labour-intensive industries (e.g. garment production), in other Southeast Asian countries such investments are increasingly in high-tech sectors (e.g. automotive and electronics production). Most of the investments are being made from Japan, the European Union (EU), the United States, the People's Republic of China (hereafter 'China') and Korea. (OECD/UNIDO, 2019^[39]). Participation in GVCs can lead to productivity gains, but potential gains are dependent on Southeast Asian countries' levels of skills in the population.

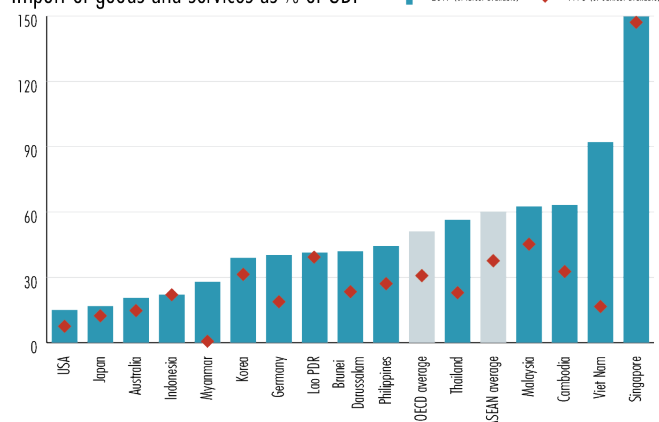
FIGURE 2.1

International trade continues to rise

Export of goods and services as % of GDP



Import of goods and services as % of GDP



Source: World Bank, World Development Indicators Database

Technological progress

Technological progress is posing new challenges and offering new opportunities (OECD, 2019^[8]). The way individuals work, learn, communicate and consume is being transformed by technological progress, as digitalisation, artificial intelligence, automation, robotics and machine learning are increasingly used. Without a broad range of skills, individuals are locked out of the benefits the technological progress can offer or are limited to its most elementary uses. Technological progress may also widen existing inequalities and create new ones, as some jobs disappear and some skills become obsolete. Individuals, firms and countries that can harness this new wave of technological progress stand to benefit greatly, as it enriches lives, boosts productivity and makes learning easier.

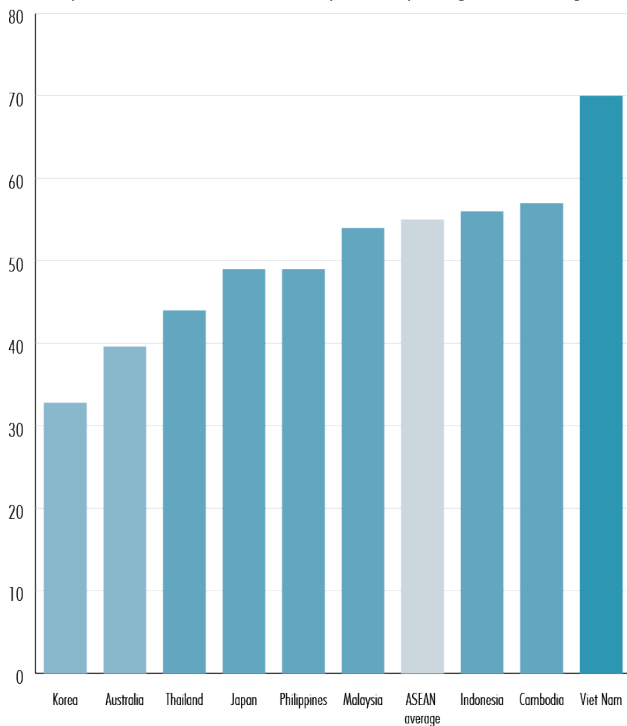
Southeast Asian countries have greater vulnerability to automation than their OECD counterparts, as a larger proportion of jobs/occupations in the Southeast Asian countries could be automated or undergo significant change (Figure 2.2). The most highly affected sectors are manufacturing, construction, wholesale, retail, hotels and restaurants. Examples of impacted occupations include sewing machine operators in Cambodia and Viet Nam, food service attendants in Thailand, shop assistants in the Philippines and office clerk workers in Indonesia (ILO, 2016^[6]). The probability of being affected by automation is higher among low skilled workers, women, and workers in low-wage occupations, which may further increase disparities in the labour market (Nedelkoska and Quintini, 2018^[7]).

While certain jobs may disappear, others will emerge and a sharp decline in overall employment is unlikely. (OECD, 2019^[29]). Moreover, job automation could contribute large benefits to the economy, such as higher productivity and improved working conditions (as certain hazardous jobs can be automated). It could also help overcome labour shortages in the face of an ageing population (OECD (2020)^[110]). As automation will mean changing skill needs in the labour market, workers will need to up- or reskill to avoid being displaced and to successfully transition between jobs (OECD, 2019^[5]).

FIGURE 2.2

Many jobs could be affected by automation

Share of jobs at risk of automation or a probability of significant change (%)



Source: OECD (forthcoming), OECD Economic Surveys: Thailand

Population ageing

Population ageing has substantial skills implications. The dependency rate, which is the ratio of older people (aged 65+) over the working age population (aged 16-64), is increasing in most Southeast Asian countries. With an ageing population, economic growth will depend more heavily on productivity growth, the skills that are important drivers of that growth, and on raising labour force participation rates, particularly among women and older workers. Increased life expectancy and better health in older age imply that older workers can stay in the labour market longer, provided they have adequate incentives and opportunities to reskill and upskill. Furthermore, increasing longevity will mean pressure to extend working lives, making it more important for older people to upskill and reskill for employment. They will also need skills that will allow them to participate fully in society, such as digital skills that facilitate social engagement and access to basic public services in a digital world (OECD, 2019^[5]).

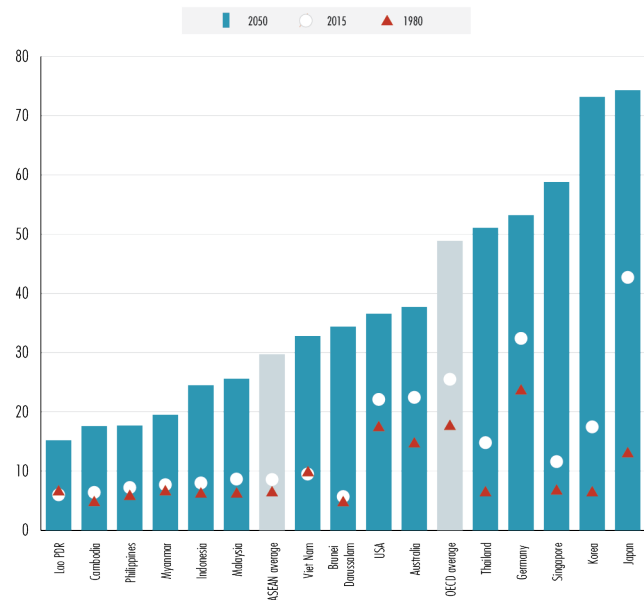
Ageing can also have an impact on consumption and, by extension, skills demand. Consumption will likely shift from durable goods (such as cars) towards services (such as health care and leisure), which are generally difficult to automate given that they require social and interpersonal skills. All of these factors will have an impact on the

types of jobs that will be created and skill demands, as well as the associated training needs (OECD, 2019^[5]). Ageing is less of a pressing issue for ASEAN countries overall than for the average OECD country (Figure 2.3). However, countries like Singapore and Thailand, and to a lesser extent Brunei Darussalam and Viet Nam, face pressure from a high dependency ratio and its associated challenges in the coming decades. In these countries with rapidly ageing populations, labour shortages may arise, as the number of retiring older workers rises relative to the number of young people entering the labour market (OECD (2020)^[110]).

FIGURE 2.3

Populations are ageing rapidly

Dependency ratio: ratio of older people (aged 65+) over the working age population (aged 16-64)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019)

Migration

Migration is an important factor affecting the supply of skills in a country. Migrants are increasing the supply of skills and can contribute to economic growth to their host country, if their skills are well used. Migrants can fill important niches in fast-growing sectors, where educating and training the required workers nationally would either take too much time or not be enough to meet labour market demand. Migrants can also fill niches in declining sectors by providing temporarily the required skills and where national skills development efforts would not be worthwhile due to the lack of long-term prospects (OECD, 2019^[5]).

Migration has also important implications for origin countries. When individuals with high skills emigrate, this can be a loss to the origin country, as the investment in educating them cannot be recuperated and as this might increase labour shortages in important sectors. When individuals with low skills emigrate, this may

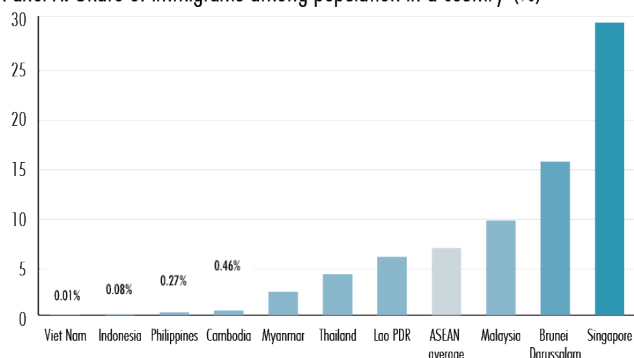
alleviate unemployment pressures in origin country. If the emigrants return to their origin country at some point, they may bring back useful knowhow, skills, and networks that can spur on innovation and economic growth in their origin countries (OECD, 2019^[5]).

Southeast Asian countries are both migrant receiving and sending countries. Around 68% of the 9.8 million immigrants to Southeast Asian countries in 2017 were from other Southeast Asian countries. The share of immigrants in the population varies significantly across countries (Figure 2.4, Panel A). Given the different demographic profile of ASEAN countries with some growing and others declining in their labour force, more circular migration in the region could be beneficial for all. As a whole, Southeast Asia is a net emigration region to the rest of the world (Figure 2.4, Panel B). The top destination regions for Southeast Asian emigrants outside of Southeast Asia include North America, the Middle East, East Asia, and Europe. Some of the labour gaps produced by emigrating Southeast Asian workers are filled by immigrants from South Asia. There are also some efforts to support Southeast Asian emigrants to return. If Southeast Asian countries can effectively address the challenge of retaining and attracting skilled workers they could spur innovation and move up global value chains.

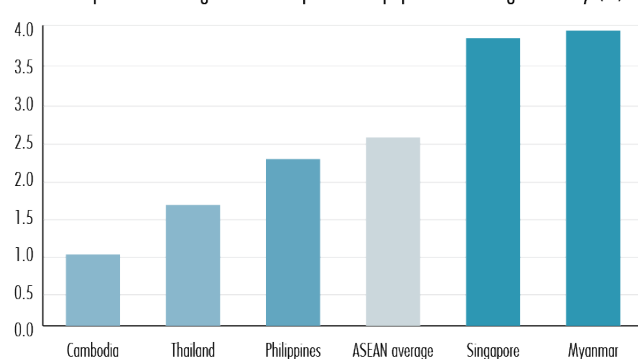
FIGURE 2.4

Migration to and from Southeast Asian countries

Panel A. Share of immigrants among population in a country (%)



Panel B. Proportion of emigrants in comparison to population of origin country (%)



Source: ILO (2018), International Labour Migration Statistics Database in ASEAN

Climate change

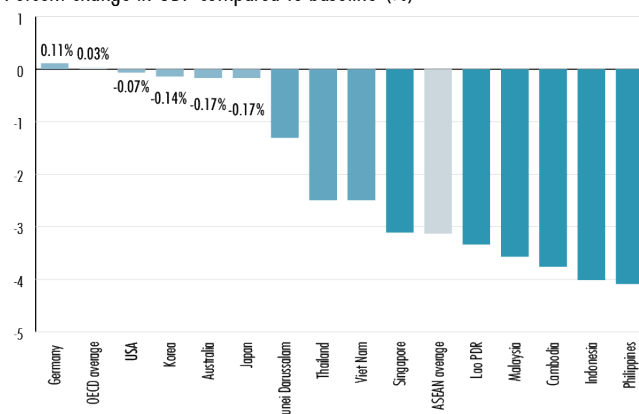
Climate change affects skills through market and regulatory changes. The introduction of market and regulatory changes seeking to preserve or restore the environment influences investment decisions, production processes and adoption of technology, which together lead to changing skills needs. Affected sectors include manufacturing, construction, environmental services, transportation, energy and agriculture, among others. The economic potential of transitioning to a green economy is contingent upon the available skills of workers (ILO, 2019^[13]).

The impact of this transition can disproportionately have adverse effects on vulnerable groups. Vulnerable groups include for example informal workers, who may have been active in environmentally destructive activities such as mining and logging and would require sufficient reskilling and upskilling opportunities to help them move to job opportunities in the formal sectors of a green economy.

Climate change is a priority for Southeast Asian countries because of the region's risks of floods, droughts, heat waves, typhoons and rising sea levels and their projected adverse impacts on GDP (Figure 2.5). In 2016, the ASEAN member countries issued a joint declaration, committing to the promotion of green jobs as a means of ensuring inclusive growth. The declaration promotes Technical and Vocational Education and Training (TVET) in developing skills for green jobs and active labour market policies in supporting the transition of workers to green jobs. The declaration also emphasises the need to collaborate with relevant stakeholders, to identify demand and supply in green skills and encourage inter-sectoral collaboration in the development and use of green skills (ASEAN, 2016^[14]).

FIGURE 2.5

The Effects of Climate Change on GDP by 2047
Percent change in GDP compared to baseline (%)



Source: Adapted from Kompas, T., et al. (2018). "The effects of climate change on GDP by country and the global economic gains from complying with the Paris climate accord." *Earth's Future*.

COVID-19

The COVID-19 pandemic has had a significant impact on Southeast Asia, with an economic downturn caused by domestic containment measures. While the effect on the health sector is the most apparent, the secondary impacts have also affected sectors such as manufacturing, construction, whole-sale and retail, accommodation and food services, and real estate, among others. These sectors employ a significant share of workers across Southeast Asia. Supply chains have been disrupted, consumer confidence and consumption have declined, and an uncertain future has led to a significant reduction in investments. The national impact due to the pandemic and the accompanying lockdowns has been exacerbated by the knock-on effects from the difficult economic circumstances of trading and investment partner countries, such as China, Japan, Korea, EU and the US, among others. The ability to effectively respond to COVID-19 depends on available financial resources, but relatively high government debt levels in some countries may be a constraint (Figure 2.6).

The way skills are developed has been affected in Southeast Asian countries. During the lockdown, learning often took place via online resources, resulting in students without access to reliable and fast internet being at a significant disadvantage. Moreover, in the absence of a physical classroom education, the effectiveness of learning has depended on the home environment and levels of parental engagement. Students from disadvantaged backgrounds, with a less conducive home learning environment, have been exposed to a greater risk of falling behind. Work-based learning programmes, including apprenticeships, are often more difficult to provide and assess at a distance. This is due to the immediate disruption of provision caused by confinement

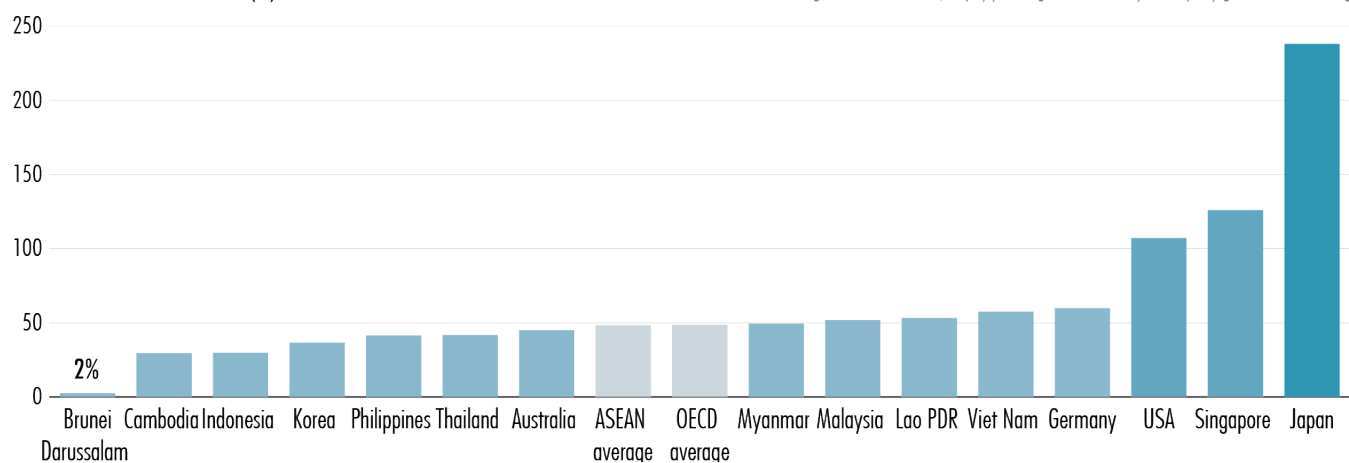
and social distancing rules. Adult learning, especially non-formal education and informal learning on the job, has suffered setbacks, as employers have historically cut back on training during economic recessions.

Using skills will be a crucial element of Southeast Asia's skills policy response to COVID-19. Due to the restrictions on mobility, factory closures and disrupted supply chains, many micro, small and medium firms are under pressure to furlough or let go their workers. The situation for the many informal, gig-economy and daily-wage workers, of whom many are women and migrant workers, is also challenging, as they are ineligible for government support measures and lack social security arrangements. More could be done to support firms in introducing health and safety measures in workplaces and adopting technological solutions and managerial practices allowing workers to work remotely, when possible. Workers at risk of losing their jobs in struggling firms could benefit from short-time work schemes, while workers who lost their jobs need income support and other social support measures. As the pandemic is likely to shift the demand for certain goods and services, skill demands and employment prospects will also change. The many workers in adversely affected sectors thus need to be temporarily or permanently reallocated to other sectors to remain employed and would require upskilling and reskilling opportunities.

COVID-19 and its attendant confinement measures have interacted with the other megatrends, such as globalisation, technological progress and migration. From a globalisation perspective, the significant and prolonged supply chain disruptions have encouraged Korean, Japanese, US firms, among others, to consider reshoring some or all of their production from Southeast Asia to their home countries. In terms of technological

FIGURE 2.6 Government debt levels

Government debt to GDP ratio (%)



Source: Trading Economics (2020), <https://tradingeconomics.com/country-list/government-debt-to-gdp>

progress, the pandemic has led to an exponential increase in the adoption of digital solutions in almost every aspect of society, including work and social life. In regards to migration, the pandemic has for the time-being limited and in some cases completely halted cross-border mobility. Since Southeast Asia has been a net exporter of labour, these restrictions may temporarily alleviate labour shortages and may even provide an unusual supply of additional skilled labour.

Overall, the megatrends and COVID-19 are transforming the skills needed to thrive at work and in society. Due to the rapid change and uncertainty,

individuals need to develop their skills throughout life and use them effectively. Greater commitment to learning will safeguard individuals' employment and participation in society. Developing a broad set of knowledge, skills, and attitudes will allow individuals to be competent workers and engaged citizens. By investing in developing relevant skills and using skills effectively, Southeast Asian countries can overcome the challenges that these trends pose for economic growth and social wellbeing and, at the same time, take advantage of the opportunities many of these trends present for reshaping the world in a positive way.

CHAPTER 3

Developing Relevant Skills Over the Life Course

Developing relevant skills is an investment in a country's economic prosperity, social cohesion and broader well-being. Skills development takes place throughout the life course in diverse places, such as homes, educational institutions, workplaces and communities, and through formal, non-formal and informal learning. Megatrends are combining to make lifelong learning imperative, as the traditional approach of front-end loading skills development is increasingly untenable in a world of rapid technological, economic and societal changes. Lifelong learning is essential for all citizens, in order to become full and active participants in the economy and society.

This chapter presents three opportunities for Southeast Asian countries to improve skills development:

1. Broadening access to skills development opportunities
2. Increasing excellence and equity in skills development
3. Developing skills that matter

Educational Institutions



DEVELOPING RELEVANT SKILLS

I. IN DIVERSE PLACES



II. THROUGH DIVERSE WAYS



Formal Learning

Structured, organised curriculum
 Set learning objectives
 Leads to formal qualification
 E.g. School, college, university, VET



Non-formal Learning

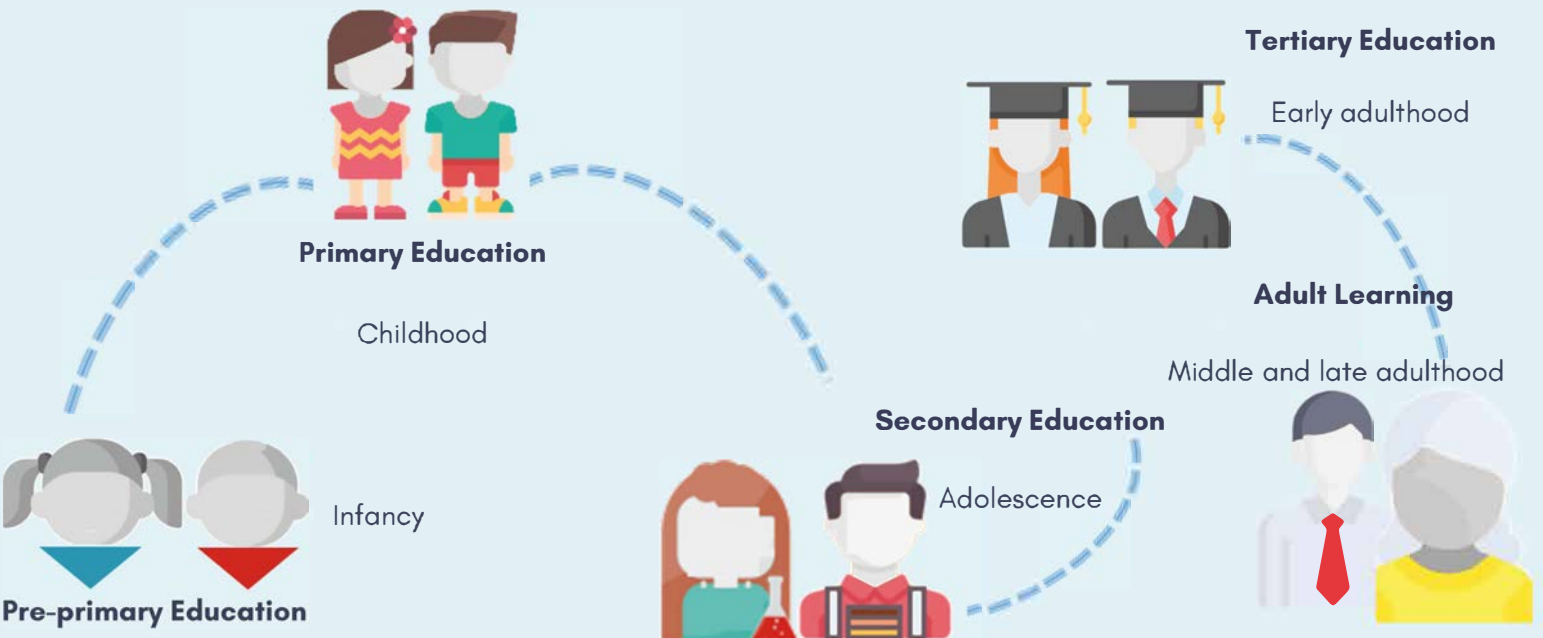
Mostly structured
 Can have learning objectives
 No formal qualification obtained
 E.g. Workshops, seminar



Informal Learning

Unorganised and unstructured
 No set learning objectives
 No qualification obtained
 E.g. Discussions, mentoring, trips

III. ACROSS THE LIFE CYCLE



Pre-primary Education
 Infancy

Primary Education
 Childhood

Secondary Education
 Adolescence

Tertiary Education
 Early adulthood

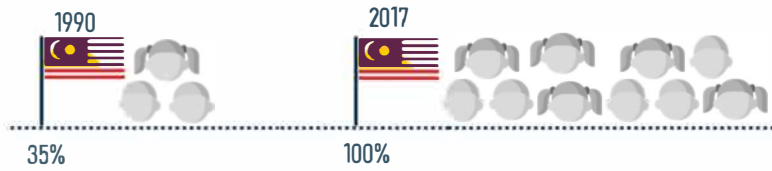
Adult Learning
 Middle and late adulthood

3.1. Broadening access to skills development opportunities

BROADENING ACCESS TO SKILLS DEVELOPMENT OPPORTUNITIES



Enrolment in **pre-primary education** rose in all **ASEAN** countries between 1990 and 2017

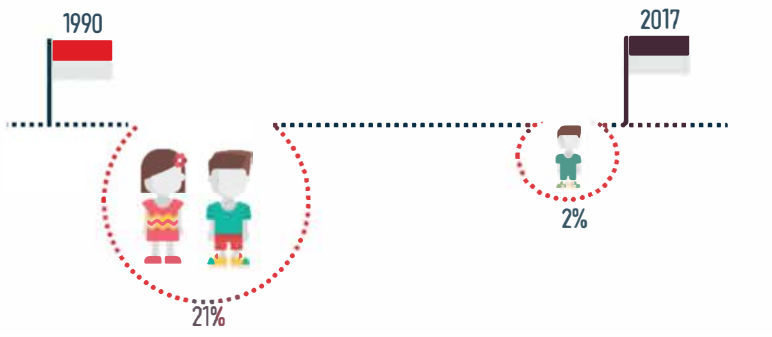


Pre-primary enrolment increased from **35%** to **100%*** in **Malaysia**, between 1990 and 2017

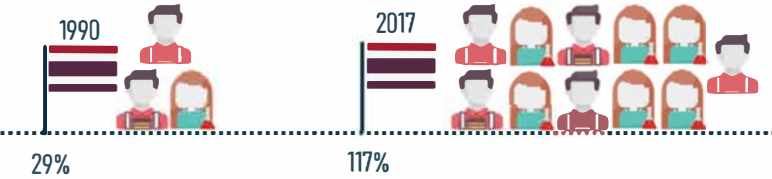
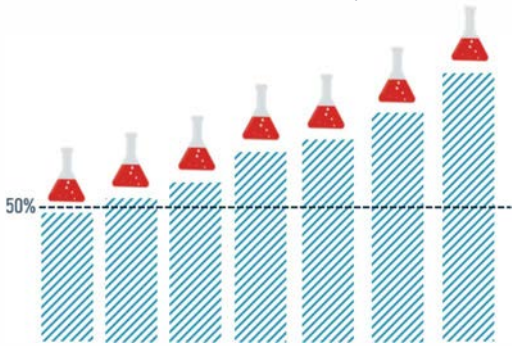
Primary education enrolment is **near-universal** in all **ASEAN** countries



Indonesia reduced the dropout rate in **primary education** from **21%** to less than **2%**, between 1990 and 2017

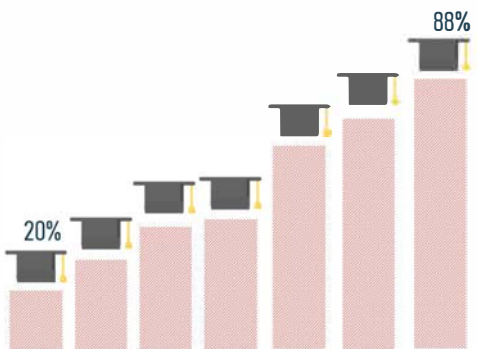


Enrolment in **secondary education** has increased overall, but in some countries it was still only around **50%** in 2017

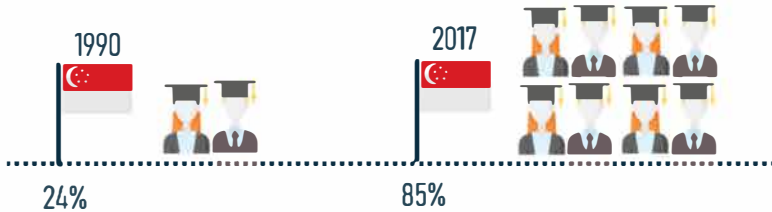


Among ASEAN countries, **Thailand** had the largest increase in **secondary enrolment** from **29%** to around **117%**, between 1990 and 2017

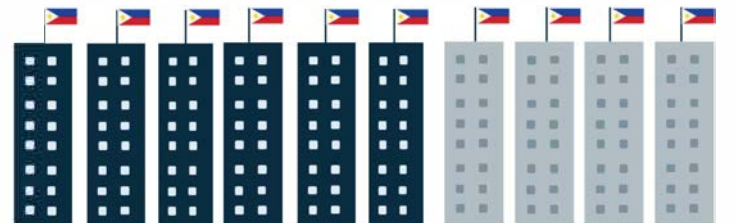
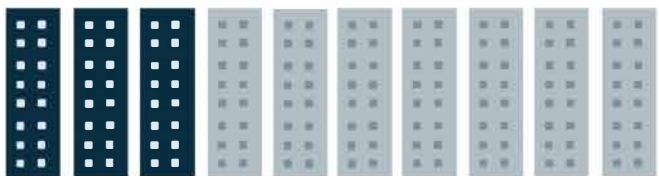
Enrolment in **tertiary education** varies greatly among **ASEAN** countries, ranging from **20%** to **88%** in 2017



Tertiary education enrolment in **Singapore** increased from **24%** to **85%** between 1990 and 2017



Less than **3** out of **10** firms offer **training** to their employees in most **ASEAN** countries



However, in the **Philippines** around **6** out of **10** firms offer **training**, which is even higher than the OECD average, less than **4** out of **10**

*Data sources are shown in the corresponding figure notes in this chapter. Definitions of key terms for all chapter infographics can be found in the Annex.

3.1. Broadening access to skills development opportunities

Access varies significantly across all levels from early childhood education and care to adult learning

Across Southeast Asia, access to learning opportunities has increased at all levels of formal education from pre-primary to tertiary education, but there is significant room for improvement. Despite steady increases in several countries, pre-primary enrolment rates¹ remain well below the average for OECD countries (Figure 3.1, Panel A). Furthermore, regional inequalities are stark, with gross pre-primary enrolment ranging from 10% in Myanmar to approximately 100% in Malaysia in 2017. This a concern, as results from the OECD Programme for International Student Assessment (PISA) demonstrate that the number of years spent in pre-primary education (ISCED 0), is a strong predictor of the level of skills performance at later stages (OECD, 2019_[54]).

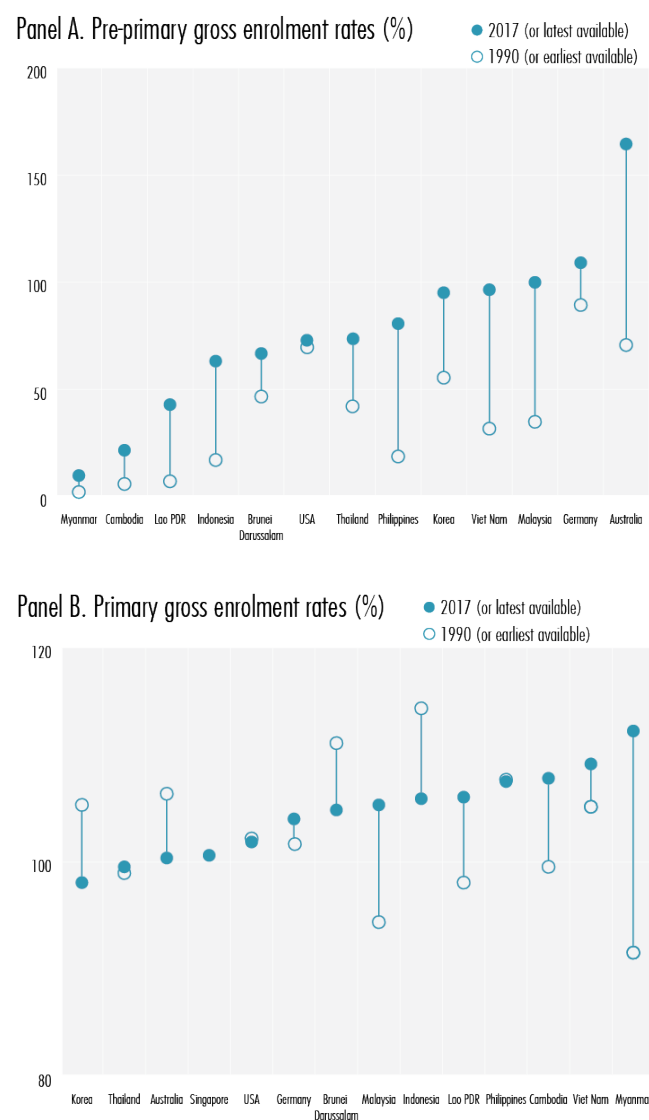
Encouragingly, all countries in the region enjoy near-universal enrolment in primary education with rates comparable to neighbouring OECD countries Korea, Japan and Australia (Figure 3.1, Panel B). While secondary enrolment rates have also increased across the region, there is much room for improvement, especially in countries where secondary education is not compulsory (Figure 3.1, Panel C). For instance, in Myanmar (64%), Lao PDR (68%) and Malaysia (85%), where secondary education is not compulsory, gross secondary enrolment rates are considerably lower than in Korea (100%), Singapore (108%), Thailand (117%), or Australia (150%), where it is compulsory to attend secondary level education.

Furthermore, there are significant disparities in accessing tertiary education across Southeast Asia (Figure 3.1, Panel D). The gross enrolment in tertiary education ranges from 13% in Cambodia to about 85% in Singapore in 2017. Several countries have seen significant improvements over the last three decades, most notably Singapore, Malaysia and Thailand, but tertiary enrolment in Southeast Asia is still substantially lower than that of OECD countries in the region (Korea, Japan and Australia).

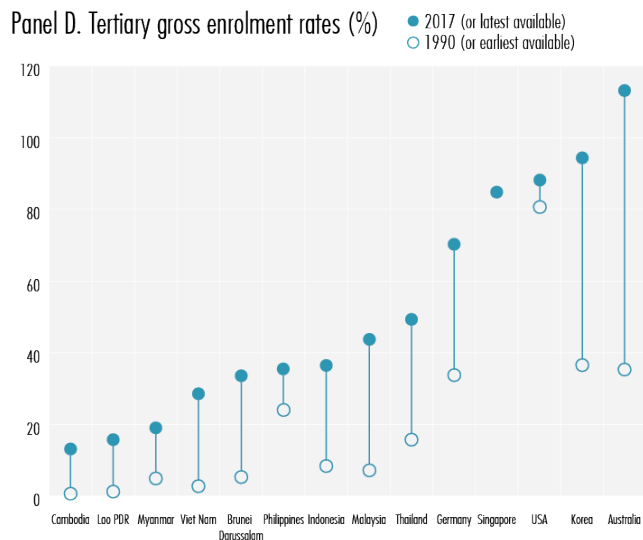
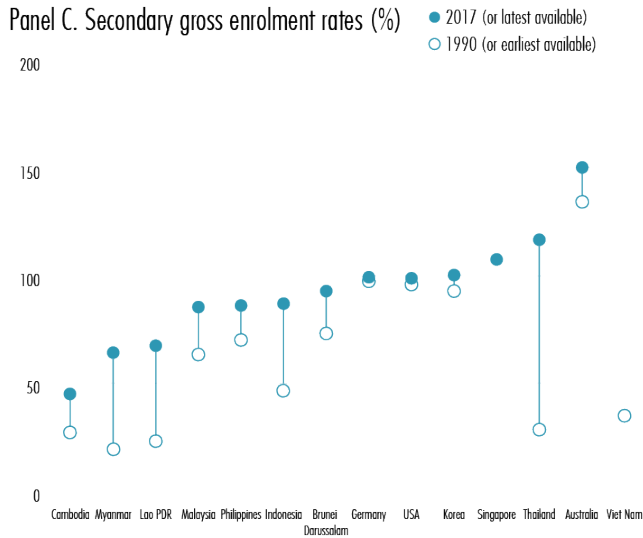
Adults in most Southeast Asian countries have comparatively few learning opportunities. According to the World Bank Enterprise Survey data, which contains information from over a thousand registered firms with at least five employees, less than 25% of firms provide formal training to their workers in most ASEAN countries, including Myanmar, Indonesia, Thailand, Malaysia, Cambodia, Viet Nam and Lao PDR (Figure 3.1, Panel E). This share is much lower than the average of East Asia and Pacific (38%). With the outbreak of COVID-19 and the resulting challenges firms face, adult learning has decreased even further with fewer on-the-job and/or employer-sponsored training opportunities. However, this moment could also present opportunities for continued adult learning, if learning providers can adopt system and technology innovations expanding the provision of distance learning.

FIGURE 3.1

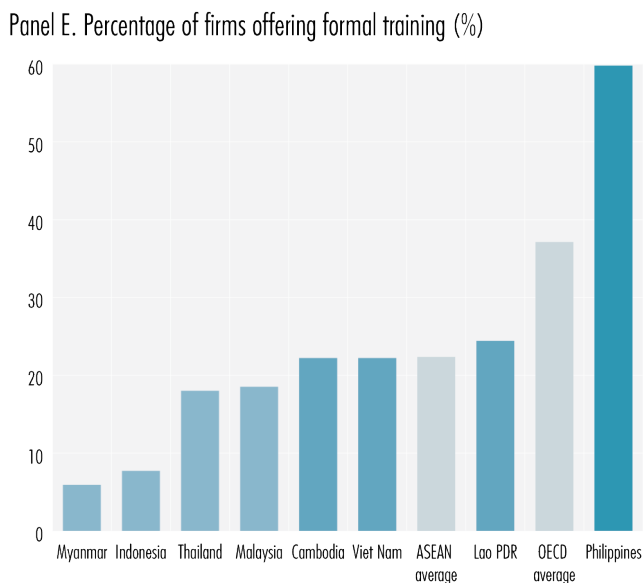
Enrolment rates across levels of education and participation in training



¹ Gross enrolment rates refer to the total enrolment rates in education, regardless of age, expressed as a percentage of the population at the official education age and it could exceed 100% due to overaged or under-aged students



Source: UNESCO Institute for Statistics



Source: World Bank Enterprise Survey
*For reference years, see Annex

COUNTRY SPOTLIGHT

Viet Nam's Programme on Universal Early Childhood Education



The Vietnamese Government has implemented the Programme on Universal Early Childhood Education for 5-year-old children to increase enrolment of 5-year-olds in full day, pre-primary education. The Programme targeted disadvantaged students in particular to prepare them for 1st grade. The Programme provided teaching and learning materials, promoted quality through an expansion of teacher training, and promoted access for disadvantaged children aged 5 through lunch subsidies. The total government budget for implementing this policy was 14.660 billion Viet Nam dong (VND) (approximately USD 636 million, as of 2020).

Source: World Bank (2017), *Implementation completion and results report*.

Additional support is required to minimise drop-out

While increasing access to learning opportunities is a good starting point, it is also critical to prevent learners from dropping-out. In most Southeast Asian countries, the drop-out rate from primary education has decreased over the past years. However, there are some stark differences across countries with the highest rates observed in Cambodia (24%), Lao PDR (19%), Thailand (8%) and Philippines (7%). Other countries in the region, such as Malaysia (4%), Indonesia (2%), and Singapore (0.9%), have drop-out rates closer to those of OECD countries, such as Korea (0.5%) and Japan (0.2%). The situation at the lower secondary education level is similar. Countries that have the highest drop-out rates in primary education tend to be also the countries with the highest drop-out rates in lower secondary education. While in some countries there has been a significant improvement, such as Cambodia and Malaysia, in other countries the drop-out rate has gone up, such as in Indonesia and Lao PDR. In the context of COVID-19 with wide-spread school closures and increasing reliance on online learning the continuous engagement of students at risk is critical to avoiding increases in drop-out.

3.2. Increasing excellence and equity in skills development



In 2018, **Singapore** had the **second highest** scores in reading, mathematics and science among all 79 PISA participating countries and economies

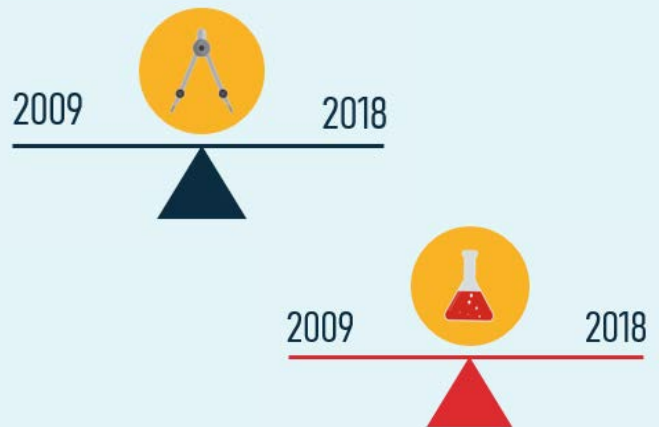
INCREASING EXCELLENCE IN SKILLS DEVELOPMENT



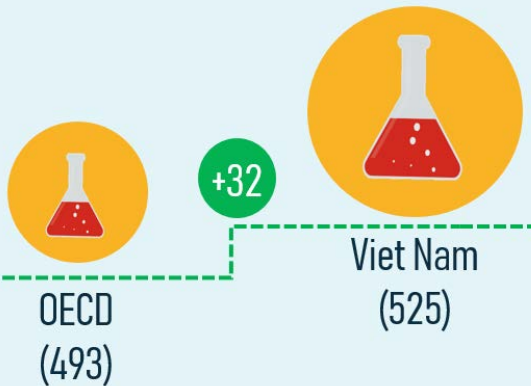
In 2018, **4.3%** of students in **Brunei Darussalam** were top performers in either mathematics, science or reading, the highest in ASEAN after Singapore



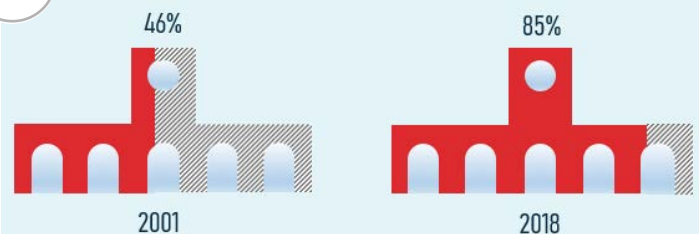
Between 2009 and 2018, mean mathematics scores increased by **36** points in **Malaysia**, which was the largest improvement in ASEAN countries and represents about **one year of schooling**



Between 2009 and 2018, mean performance in mathematics and science remained stable in **Thailand**



In 2015, the mean score in science was **32** points higher in **Viet Nam** than the **OECD** Average, which represents about **one year of schooling**



Between 2001 and 2018, **Indonesia** was able to maintain its performance in mathematics, science and reading, despite increasing enrolment from **46%** to **85%**



*Data sources are shown in the corresponding figure notes in this chapter.

INCREASING EQUITY IN SKILLS DEVELOPMENT



Across **ASEAN** countries girls outperformed boys in reading by **28** score points, which represents almost **one** school year, similar to **OECD** countries



While across **ASEAN** countries girls also outperformed boys in mathematics by **8** points; boys outperformed girls by **5** points across **OECD** countries



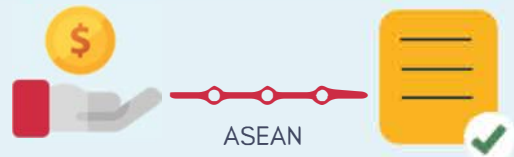
Top-performing girls in science and mathematics across **ASEAN** countries were **half** as likely as boys to aspire to a career in science and engineering. Across **OECD** countries, the difference between girls and boys is **11** percentage points.



Top-performing girls in science and mathematics were more than **twice** as likely as boys to aspire to a career as a health professional across **ASEAN** countries



Across **ASEAN** countries on average, **24%** of the students were disadvantaged, while across **OECD** countries this was only **6%**



The relationship between socio-economic status and performance was **slightly stronger** across **ASEAN** countries in comparison to **OECD** countries



About **1 in 10** disadvantaged students across **ASEAN** countries was academically resilient, similar to the **OECD** average



Disadvantaged students have a **1 in 6** chance to be enrolled in a school with high-achieving students across **ASEAN** countries, the same as **OECD** countries

*Data shown in the corresponding figure notes in this chapter. Definitions of key terms for all chapter infographics can be found in the Annex.

3.2. Increasing excellence and equity in skills development

Some of the highest performing skill systems have become so only recently

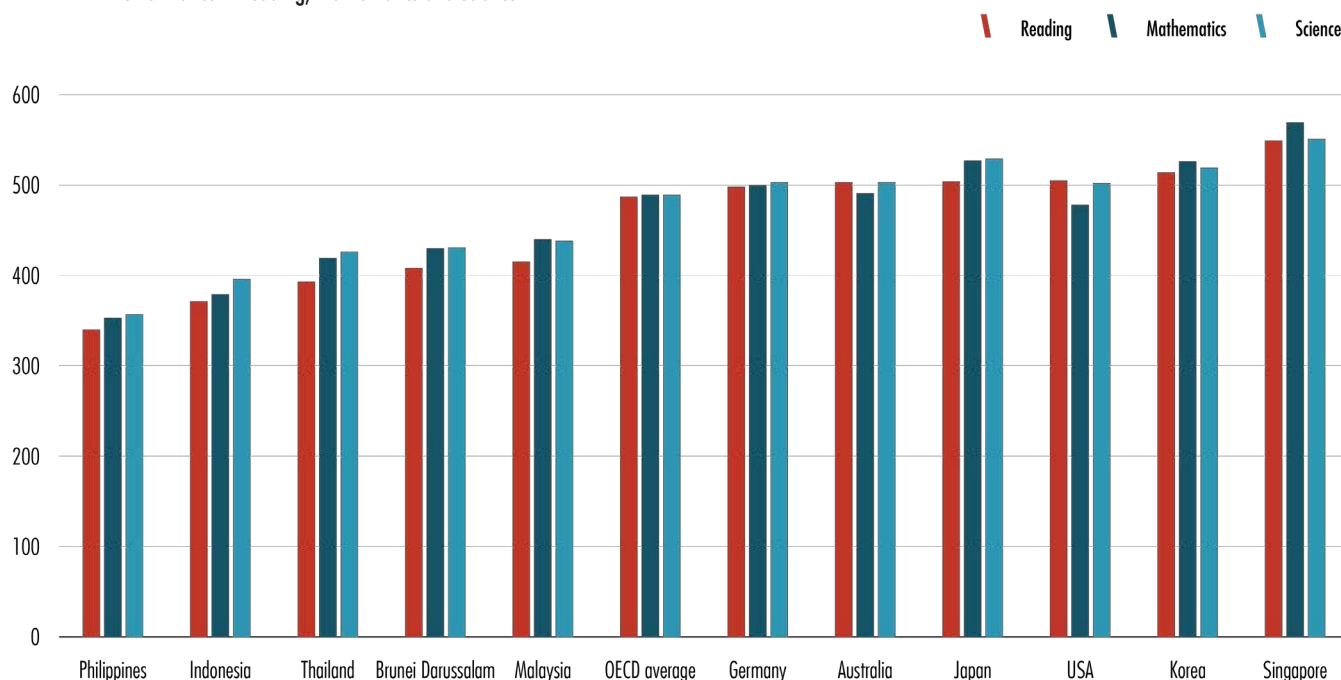
The overall performance of Southeast Asian students in reading, mathematics and sciences, as measured by PISA, is low. Philippines, Indonesia, Thailand and Brunei Darussalam, countries which participated in the 2018 PISA, all scored considerably lower than the average for OECD countries in the three domains (Figure 3.2). The exception is Singapore, where the students were among the highest performing students across all PISA performing countries. This is a remarkable achievement, in particular, since this was done in a relatively short amount of time. Comparing the literacy skills of 55-56 year olds with 16-24 year olds in Singapore, only 17% of the former generation reached level 3 or higher in the Survey of Adult Skills², while 63% of the latter generation did so.

2 A product of the OECD Programme for the International Assessment of Adult Competencies, a kind of PISA for adults.

A large share of Southeast Asian students are low achievers. This means that they lack basic skills, which will hamper their skills development further ahead in life. In Indonesia and the Philippines, this share exceeds 50%, and it is considerably higher than the OECD average in Malaysia, Thailand and Brunei Darussalam. Additionally, these countries have a very low share of students who are top performers in at least one subject. Singapore's performance is comparable to other OECD countries such as Japan, Korea, and Australia all of which have a high share of high performers and a low share of low achievers as compared to the Southeast Asian countries. The COVID-19 pandemic and the related school closure have negatively impacted on low performing students who are less likely to benefit from a supportive home learning environment and are thus at risk of falling even further behind. The effect can be similar to what can be observed during summer vacations, when low performing students can lose the equivalent of one month of academic learning (Reimers and Schleicher, 2020_[66]).

FIGURE 3.2 Performance in reading, mathematics and science

Source: Schleicher, A. (2019), PISA 2018 Insights and Interpretations, OECD Publishing, Paris.



COUNTRY SPOTLIGHT

Singapore's efforts to promote equity in education



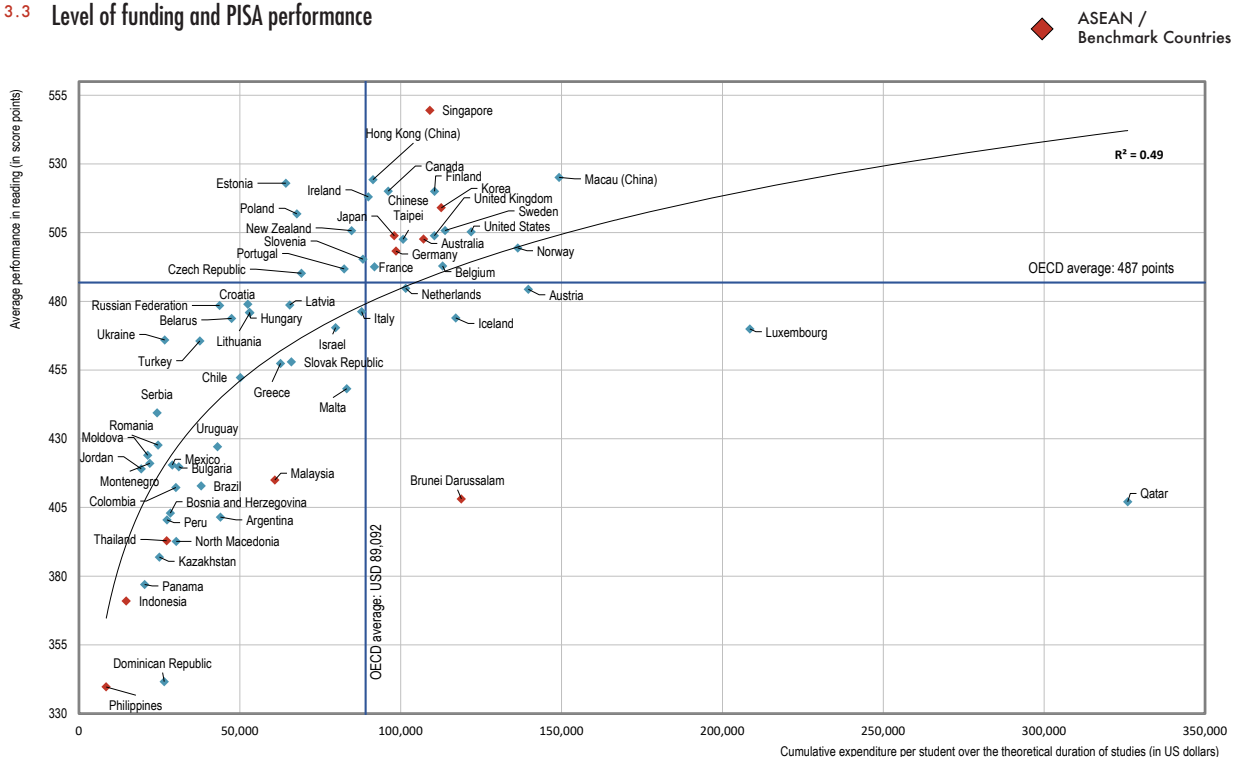
The Singapore Ministry of Education grants schools extra funds to use flexibly for low-income students. Schools can use these funds to provide extra help or to buy learning materials (i.e. computers or books) for disadvantaged students. Low-income students are also provided with funds directly, for transportation to and from school and breakfasts, as well as individual student accounts with funds to participate in educational activities. Students are assessed at the beginning of first grade for reading and numeracy skills, and those who are considered to need extra help (approximately 12-14 %) are provided with extra learning support programs to ensure that they keep pace with their peers.

Source: National Centre on Education and the Economy Website (2020), "Singapore: Supporting Equity".

The amount of funding invested in skills development matters only to a certain point

Improving skills outcomes is not only about the amount of spending. PISA results show that there is a positive relationship between investment in education and average performance – up to a threshold of USD 50 000 in cumulative expenditure per student from age 6 to 15 (Figure 3.3). Besides Singapore, most Southeast Asian countries are below that threshold and could thus benefit from greater investments in education. For example, the Philippines, Indonesia and Thailand have among the lowest levels of spending per student. However, regardless of the overall amount of spending, it also matters how the funds are being spent. For example, even though Brunei Darussalam spends almost double of what Malaysia spends, students in Malaysia perform slightly better. Among the Southeast Asian countries and among all 79 PISA participating economies, students in Singapore had the highest performance in reading, even though Singapore spends slightly less than Brunei Darussalam.

FIGURE 3.3 Level of funding and PISA performance



While the amount of time spent in skills development has increased, more attention needs to be directed at how the time is spent in order to achieve excellence

Spending a lot of time learning by itself is not sufficient to raise learning outcomes. For example, in Thailand students spend almost 12 hours more per week in learning than students in Japan, but Thailand has among of the lowest outcomes in PISA and Japan among of the highest (Figure 3.4). The lack of a correlation between the amount of learning time and learning outcomes illustrates that learning outcomes are not only about the quantity of learning time, but is also about the quality of learning and the instructional environment.

Skills development needs to be equitable

Every individual should have a fair chance to improve his or her life, whatever the personal circumstances. Ensuring that everyone has access to the learning opportunities is one way of improving learning outcomes in general. Equity does not mean equal learning outcomes. Rather it means that whatever variations there may be in outcomes, they are not related to students' background, including socio-economic status and gender background.

The socio-economic background of an individual matters for their skills outcomes. This refers to the financial, social, cultural and human-capital resources available to an individual. The fewer the available resources, the more challenging it is for the individual to develop their skills. Education systems can mitigate such disadvantages by providing the required resources to those students and thus contributing to a more equitable distribution of learning opportunities. In countries with such an equitable education system, a low percentage of the variation in student performance is explained by their socio-economic background. For example, in Macau (China) and Hong Kong (China), that number is merely 1.7% and 5.1% respectively (Figure 3.5). Across the OECD that percentage was 12%³, while in some OECD countries neighbouring Southeast Asia, such as Korea (8%), Japan (8%) and Australia (10%), it was much lower still. The picture across Southeast Asian countries varies with Indonesia (8%) falling below the OECD average, Thailand (12%) and Singapore (13%) being around the OECD average and Brunei Darussalam (16%), Malaysia (16%) and Philippines (18%) being above the OECD average. The higher the percentage the more efforts and resources are needed to support students

with disadvantaged backgrounds providing them with opportunity to reach or maximise their potential.

Differences in skills development aspirations by gender are prominent in Southeast Asian countries. Girls outperform boys in reading and, to a lesser extent, girls outperform boys also in mathematics. Aspirations for one's professional future differ significantly between boys and girls. Across OECD countries on average girls are less likely than boys with a difference of 11 percentage points (pp) to report aspiring to a career in science and engineering by age 30 despite being a top performer in science or mathematics. This difference is significantly larger in Southeast Asian countries, such as in Malaysia (23 pp), Brunei Darussalam (18 pp), Singapore (15 pp), while in Indonesia (7 pp) it was below. Such gender disparities are a matter of considerable concern, as they may have long-term consequences for girls' and boys' personal and professional future.

COUNTRY SPOTLIGHT



Korea and Japan's efforts to close the performance gap

In **Korea**, where 77% of students in primary and secondary schools have private tutors, the government provides additional public resources to students by offering extra instruction after school and financial support to poor parents. In 2019, the Ministry of Education assigned approximately USD 0.6 million to assist low-income students to benefit from additional learning with an aim to close the performance gap among students. Under this program, 2,100 students from primary and secondary schools can each receive approximately USD 600 per year to pay for after-school courses and purchase books and other learning materials.

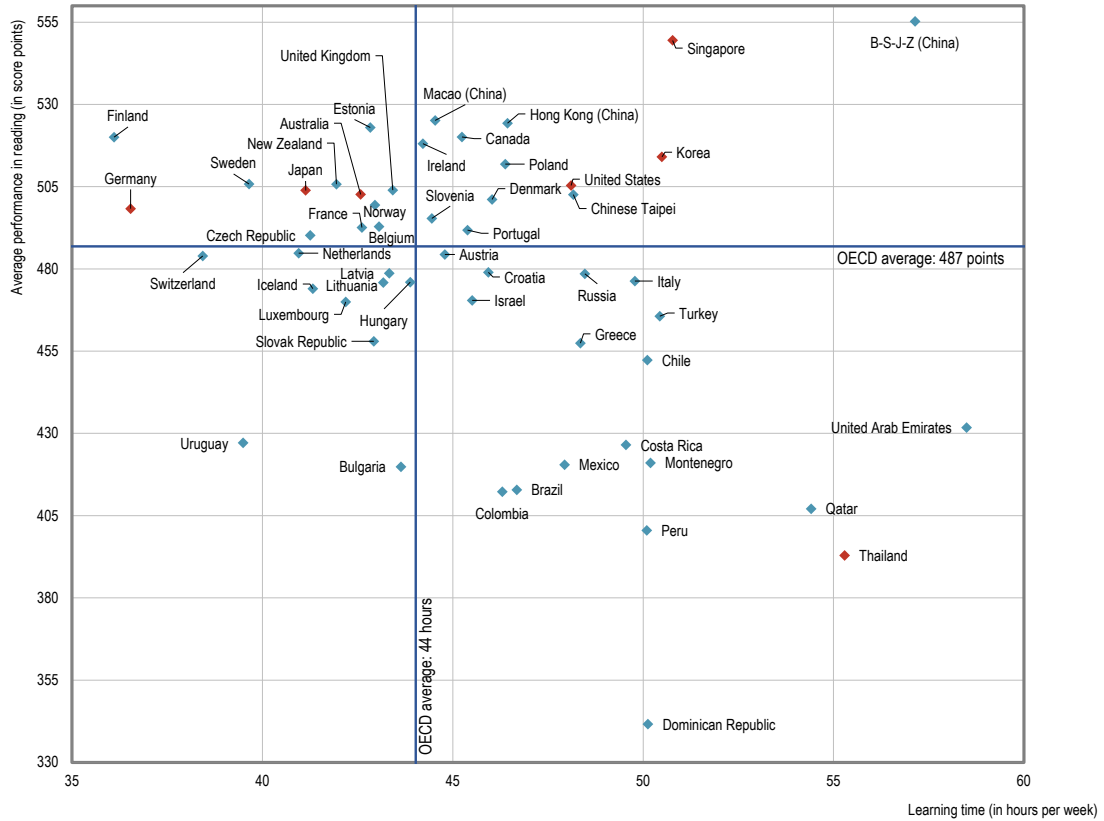
In **Japan**, the central and local governments provide subsidies to students with financial needs, students with disabilities, and students living in remote areas. It also provides teachers with ample time for work other than teaching. Teachers use nonteaching time on activities that support weaker students and help to build social capital. Japan can afford these activities because it keeps overall education spending relatively low by maintaining comparatively large class sizes.

Source: World Bank (2018), *Growing Smarter: Learning and Equitable Development in East Asia and Pacific*; MOE (2018). MoE budget allocation and funds management plans for 2019.

³ Percentage of variance in PISA 2018 reading performance explained by socio-economic background.

FIGURE 3.4 Time and PISA performance

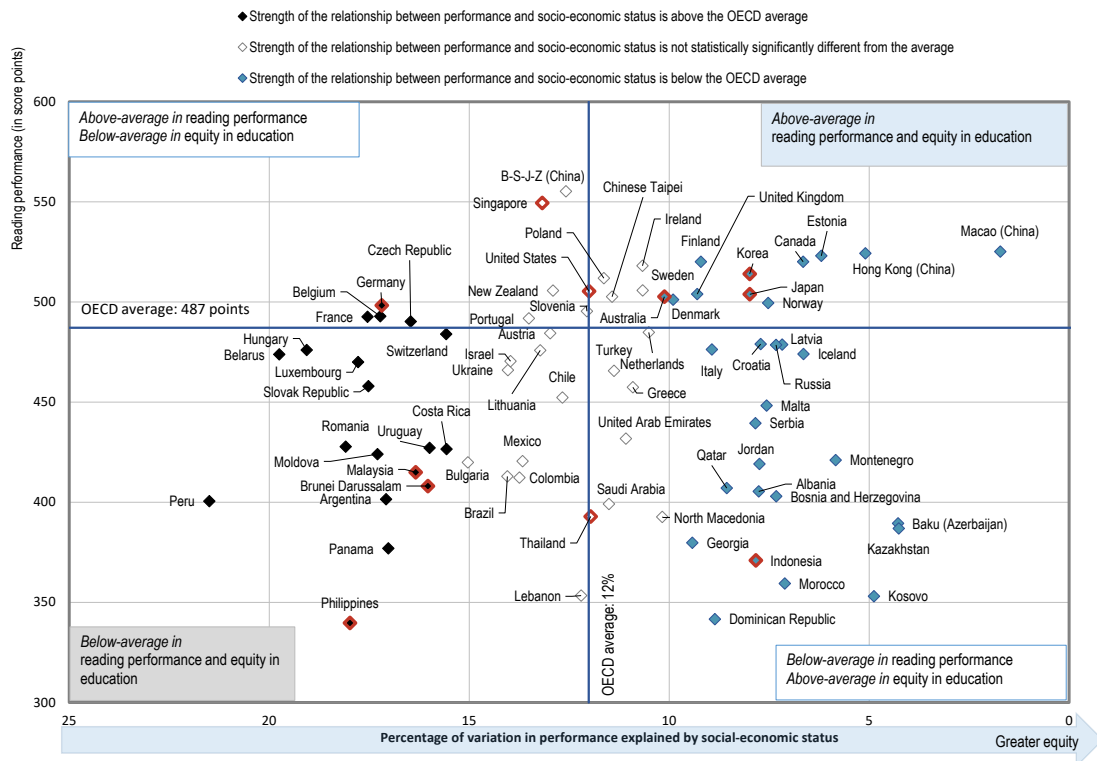
◆ ASEAN / Benchmark Countries



Source: OECD (2018), PISA 2018 Database

FIGURE 3.5 PISA performance variation by socio-economic background

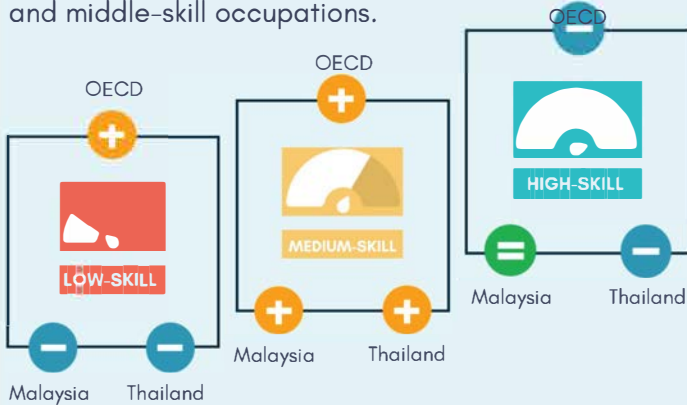
◇ ASEAN / Benchmark Countries



Source: OECD (2018), PISA 2018 Database

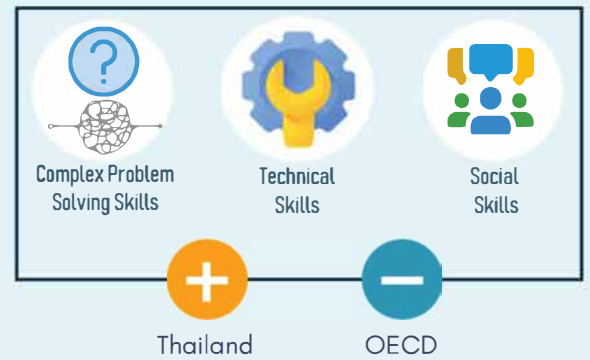
3.3. Developing skills that matter

The OECD countries are on average experiencing skills **shortages** in high-skill and **surpluses** in low- and middle-skill occupations.



Malaysia and **Thailand** are experiencing skills **shortages** in low-skill and **surpluses** in middle-skill occupations.

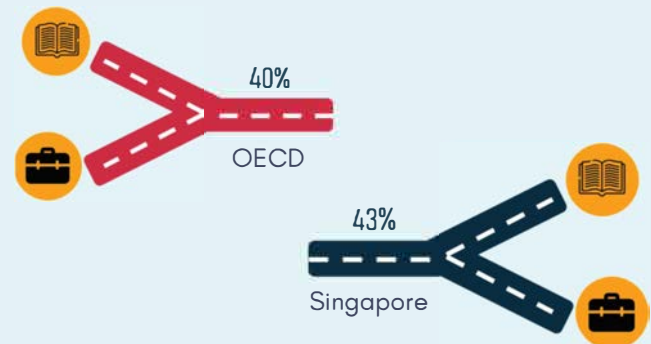
DEVELOPING SKILLS THAT MATTER



Thailand is experiencing skills **surpluses** in complex problem solving, technical and social skills, while the **OECD** countries on average are experiencing **shortages** in all of these skills

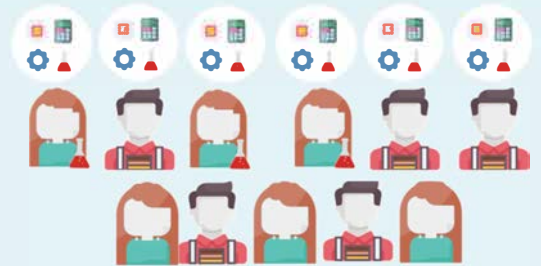


In **Thailand** **8%** of workers were under- and **42%** over-qualified for their jobs; in the **OECD** on average **22%** were under- and **38%** over-qualified.



In the **OECD** on average, about **40%** of workers were working in a different field than they studied. The field-of-study mismatch was slightly higher in **Singapore** with **43%**

30% of students in tertiary education across **ASEAN** were enrolled in STEM subjects, slightly higher than the **OECD** average (**26%**) in 2017*



60% of students in tertiary education in **Myanmar** were enrolled in STEM subjects, in 2018 - the highest in ASEAN

ASEAN (49%)

OECD (64%)



In 2018, **49%** of students across the **ASEAN** countries on average studied in schools with regular access to career guidance, less than the **OECD** average of **64%**

Singapore

Malaysia

92%

86%



In 2018, **92%** of students in **Singapore** and **86%** in **Malaysia** studied in schools with regular access to career guidance, the highest in ASEAN

*Data sources are shown in the corresponding figure notes in this chapter.

3.3 Developing skills that matter

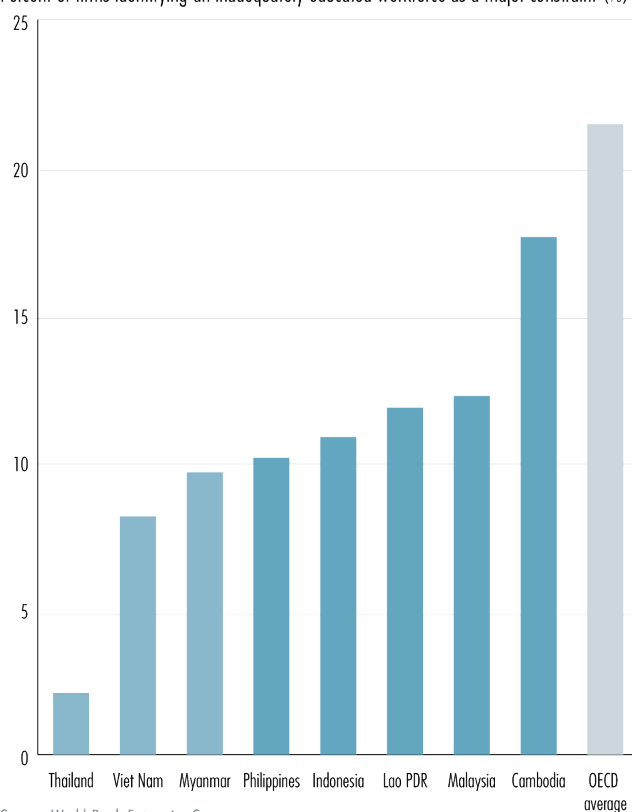
There are significant skills imbalances

Developing skills that matter is essential to reduce skills imbalances. Imbalances between the supply and demand for skills can emerge in the form of ‘skill shortages’ (i.e., a situation in which adequate skills are hard-to-find in the current labour market) or in the form of ‘skill surpluses’ (i.e., a situation in which the supply of certain skills exceeds their demand in the labour market) (OECD, 2017b_[84]). Shortages and surpluses can exist by skill level or by skill type. Imbalances can also take the form of qualification mismatches, which refers to a situation when a workers’ qualifications exceed or fall short of those required for their job under current market conditions (OECD, 2017b_[84]; Shah and Burke, 2005_[67]). Skills imbalances matter, because they mean that employers have difficulties finding workers with the skills they need. Across Southeast Asian countries between 10 and 15% of employers in the Philippines, Indonesia, Lao PDR and Malaysia, and 18% of employers in Cambodia report facing challenges finding workers with the right skills (Figure 3.6). While skills imbalances are an important challenge in Southeast Asia, they seem less pressing than in the OECD on average.

FIGURE 3.6

Many firms have difficulties finding workers with the right skills

Percent of firms identifying an inadequately educated workforce as a major constraint (%)



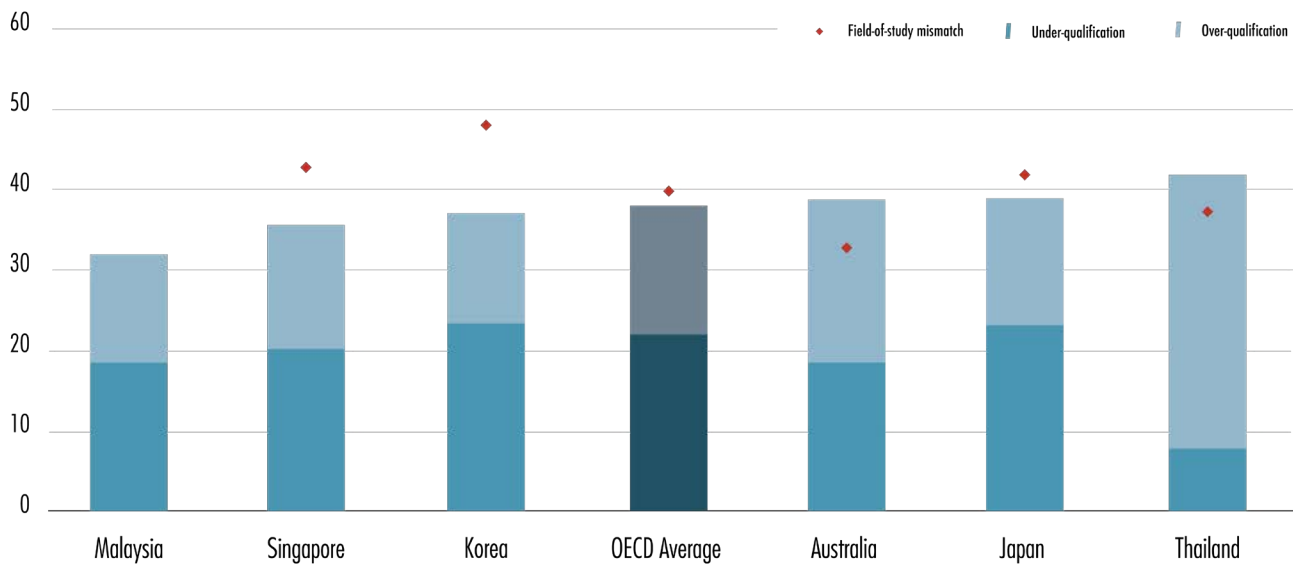
Source: World Bank Enterprise Survey

Significant skill shortages and surpluses are evident in Southeast Asia. For Southeast Asian countries, such as Malaysia and Thailand (for which there is data available on relative shortages in low-skill occupations – i.e. elementary occupations and services and sales occupations), shortages are evident in low-skilled occupations. This is very different from most OECD countries, where low-skill occupations mostly face surplus conditions. Skill shortages in low-skill occupations in these Southeast Asian countries reflect the large and growing size of these occupations in total employment, combined with rising educational attainment of the population, which makes these jobs less attractive to graduates, as well as to the often unattractive working conditions in low-skill occupations. Shortages in high-occupations are evident at rates similar to in OECD countries in Thailand (OECD, 2019_[54]; OECD, 2020_[110]). Consistent with what is found in OECD countries, middle-skill occupations in Malaysia and Thailand are facing on average the strongest surplus pressure (OECD, 2019_[54]). In the case of Southeast Asia, the surplus is largely due to a substantial number of skilled agriculture, forestry and fishery workers (OECD, 2020_[110]).

Furthermore, in many OECD countries, there is evidence of significant shortages of certain foundation skills (e.g. literacy, numeracy and digital literacy) and social and emotional skills and less so professional and technical skills. The picture differs in Malaysia and Thailand, the two countries for which there is available data (OECD, 2020_[110]). In Malaysia, none of these skill types is showing signs of imbalances, whereas in Thailand all three skill types are showing signs of surplus pressures (OECD, 2019_[54]). However, at a more disaggregated level, there is evidence in Thailand of shortages in certain social and emotional skills, such as service orientation, as well as of certain foundation skills such as numeracy skills.

There are significant mismatches by qualification level and field of study (Figure 3.7). On average in OECD countries, 22% of workers are under-qualified for their occupation, and an additional 16% are over-qualified (Figure 3.6). In Singapore, around 20% are underqualified, while 15% are over-qualified. In Malaysia, 19% are under-qualified and 13% are overqualified (OECD, 2019_[54]). In Thailand, only 8% of workers are under-qualified, while 34% of workers are over-qualified (OECD, 2020_[110]). Under-qualification might reflect that employers have difficulties finding workers with the right qualification level and resort to hiring under-qualified workers.

FIGURE 3.7 Share of workers mismatched by qualification level or field of study (%)



However, under-qualified workers are not necessarily under-skilled for their jobs, as often workers acquire the required skills non-formally or informally on the job. A system of recognition of prior learning can help to certify these skills and make them more visible to employers. Over-qualification signals that the labour market may not be able to absorb all the graduates with higher levels of education. On the other hand, it could also indicate that graduates are not developing the level or type of skills expected by employers. For example, many students may leave schools having acquired a qualification in a field for which there is low demand. Field-of-study mismatch can be a problem for graduates when they have to accept a lower-level job as a result of lacking field-specific knowledge, as they may experience significant wage penalties as a result (OECD, 2019). Field-of-study mismatch is common in many countries. Around 37% and 43% of workers in Thailand and Singapore, respectively, are mismatched, compared to 40% across OECD countries.

Most recently, the COVID-19 crisis has affected skills imbalances across countries. As many workers have become unemployed or have been furloughed, aggregate skills pressures are diminishing. However, as countries start to recover, skills pressures are likely to reappear and, if their underlying causes are not addressed, could stall that recovery. Workers in adversely affected sectors may therefore benefit from support to up- and re-skill to position themselves better in the labour market during recovery. For their part, firms and countries can help to avoid skills bottlenecks that could hinder recovery in the medium by investing in skills which are in shortage.

Developing skills needed in strategic areas

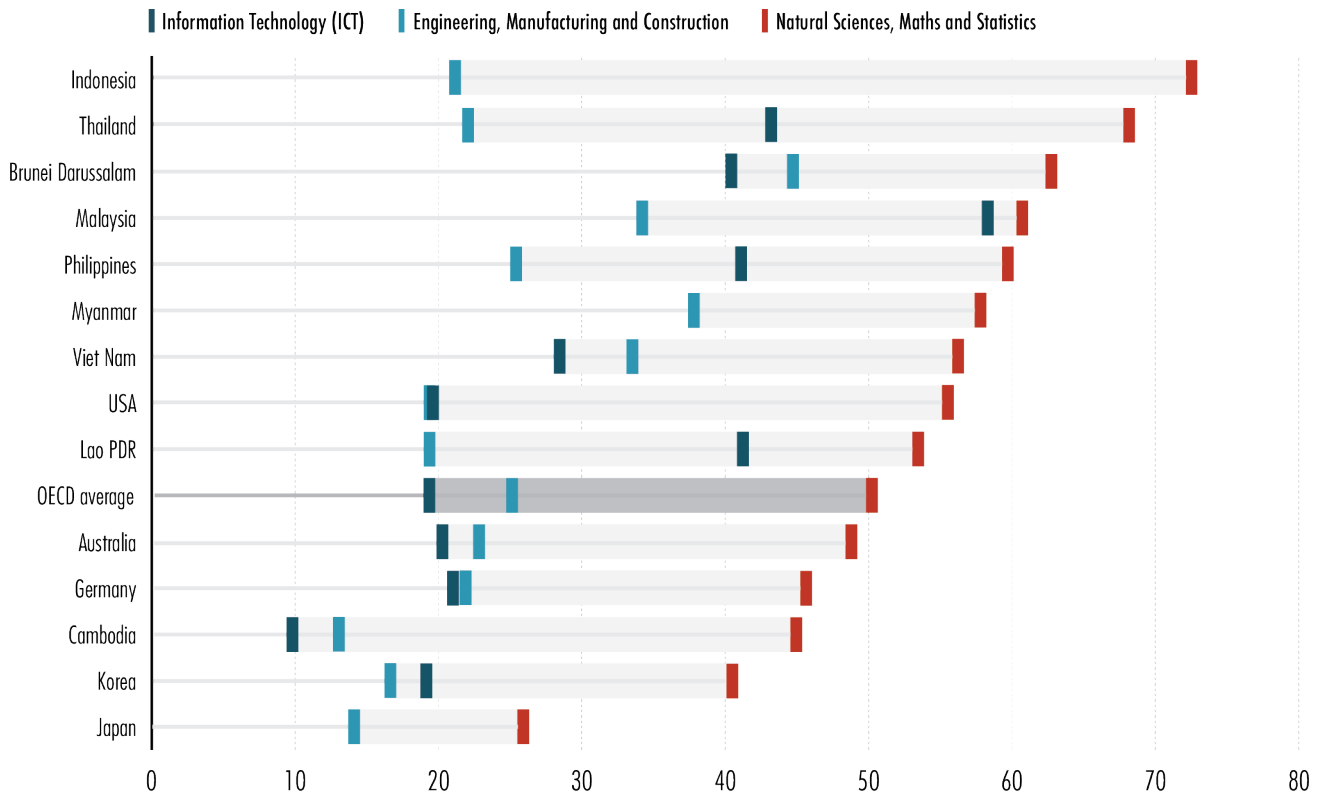
Despite the high demand for graduates in natural sciences, technology, engineering and mathematics (STEM) fields, participation in the STEM subjects in tertiary education is still low. In 2017, only 26% of students in tertiary education were enrolled in the STEM fields across OECD countries, with Korea (33%) reporting relatively high participation, followed by Australia (19%). ASEAN countries reported a higher average⁴ (30%) than OECD countries in overall STEM participation, with Myanmar (60%), Brunei Darussalam (37%), Malaysia (35%) on the higher end, and the Philippines (29%), Thailand (22%), Lao PDR (22%), Viet Nam (21%), Indonesia (20%), and Cambodia (18%) reporting lower than average participation.

Women are under-represented in certain STEM fields of study (Figure 3.8). In the field of natural sciences, mathematics and statistics, the share of females is the same as or higher than males (OECD average 50%, ASEAN average 60%). Particularly high shares of females in these fields were observed in Indonesia (73%), Thailand (68%), Brunei Darussalam (63%), and Malaysia (61%). However, female participation is particularly low in both the OECD and ASEAN on average in the fields of engineering, manufacturing and construction (OECD average 25%, ASEAN average 28%) as well as in Internet Communication Technology (ICT) (OECD average 19%, ASEAN average 36%). The share of females at the tertiary level in ICT subjects showed wide variation. Countries like Malaysia (58%), Thailand (43%) and Lao PDR (41%) fared relatively well in share of females in ICT, while Cambodia (10%) had a relatively low share.

⁴ Percentage of students in tertiary education enrolled in the STEM fields was calculated by incorporating 3 composite indicators: i) enrolment in natural science, mathematics and statistics; ii) enrolment in engineering, manufacturing and construction and iii) enrolment in ICT.

FIGURE 3.8 Proportion of female students enrolled in the STEM fields in tertiary education in ASEAN countries
Share of females amongst tertiary students in:

Source: UNESCO Institute of Statistics



COUNTRY SPOTLIGHT

ASEAN's efforts to develop relevant skills for the public health sector in response to COVID-19

The Special ASEAN Plus Three (APT) Summit (April 2020) committed in the context of COVID-19 to provide mutual support and assistance in the skills development for the public health sector and strengthen the region's health care systems. The co-operation includes supporting for training of public health workers, providing scholarships for students from ASEAN Member States to study health related subjects in the Plus Three countries (China, Korea, Japan), and upgrading of health facilities for infection prevention and control. The APT also agreed to strengthen skills for better health emergency preparedness and response through existing regional health mechanisms including ASEAN Plus Three Field Epidemiology Training Network (ASEAN+3 FETN).

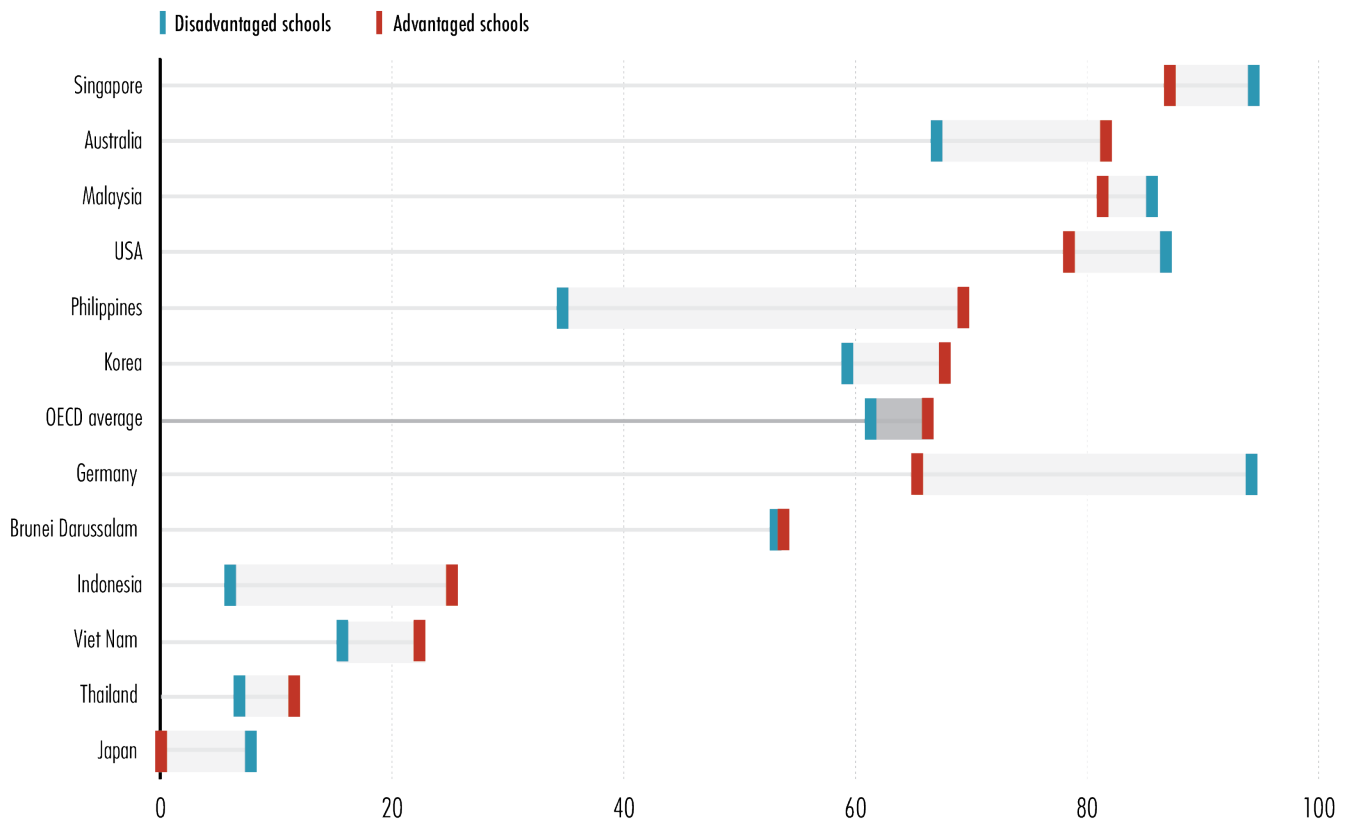
Source: ASEAN (2020), Joint Statement of the Special ASEAN Plus Three Summit on Coronavirus Disease 2019 (COVID-19).

Guidance can help individuals choose relevant skills development opportunities

Effective guidance in skills development is becoming increasingly important to help people make skills development decisions throughout their lives. Such decisions range from choosing between academic and vocational trajectories in secondary education, to choosing different forms of formal, non-formal education and informal learning and training in order to change careers (OECD, 2019^[5]). Effective career guidance also contributes to reducing skills imbalances, by helping to orient individuals better towards relevant skills in labour market demand (OECD, 2019^[5]). In ASEAN countries, access for young adults to career guidance varies across countries (Figure 3.9). In Indonesia, Viet Nam and Thailand, less than 30% of students have access to a guidance counsellor both in advantaged and disadvantaged schools. On the other hand, Singapore and Malaysia have a much higher percentage of students who can access career guidance services.

FIGURE 3.9 Advantaged/disadvantaged schools where one or more dedicated counsellor(s) provide career guidance
Percentage of students in schools that provide career guidance:

Source: OECD PISA 2018 Results



COUNTRY SPOTLIGHT



Malaysia's career guidance programmes for students

The Manpower Department (Jabatan Tenaga Manusia: JTM) in the Ministry of Human Resources of Malaysia gives career counselling and support to students from their training institutions to provide them with information on potential jobs that the students can consider after graduation. The JTM holds career seminars for students with an objective to help them understand their career goals and to assist with their efforts in achieving them. The career seminars provide students with career briefings, information on job opportunities and résumé drafting strategies as well as guidance to prepare for interviews.

Source: OECD (2019), *OECD Economic Surveys Malaysia*; Ministry of Human Resources of Malaysia website (2020), Manpower Department.

CHAPTER 4

Using Skills Effectively in Work and Society

The effective use of skills is important for a country's economic prosperity, social cohesion and people's overall well-being. Skills development policies will only achieve the desired benefits, if they are accompanied by simultaneous actions to boost the demand for, and effective use of, skills. Indeed, the failure to fully use skills could result in a waste of the initial investment in the development of skills and the depreciation and obsolescence of those skills that are left unused. This chapter presents three opportunities for Southeast Asian countries to improve skills use:

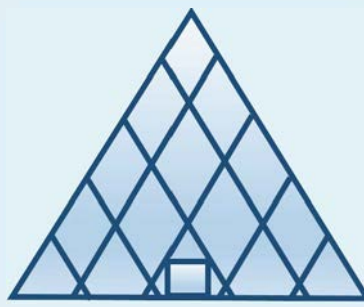
1. Promoting participation in the labour market and society
2. Making intensive use of skills
3. Increasing demand for higher-level skills

USING SKILLS EFFECTIVELY

I. IN DIVERSE PLACES



Firm



Community



Home

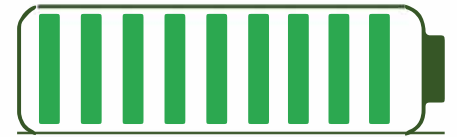
II. WITH VARYING DEGREES OF INTENSITY



Limited



Medium



High

III. ACROSS THE LIFE CYCLE



Childhood



Early adulthood



Infancy

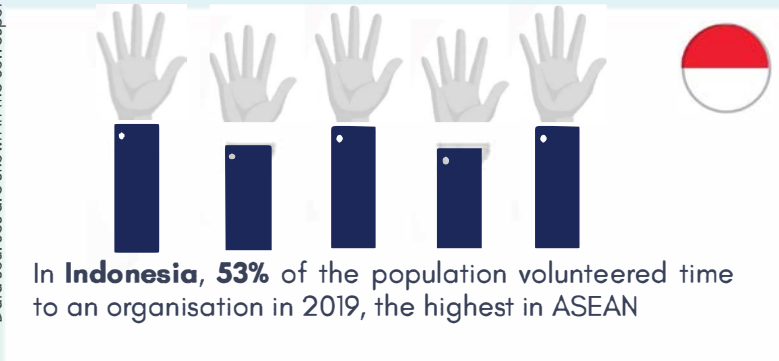
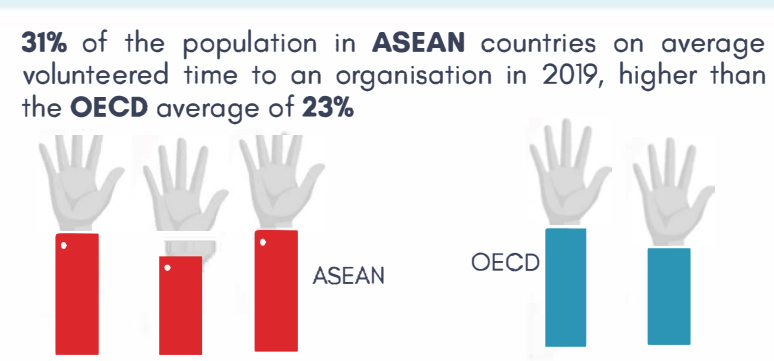
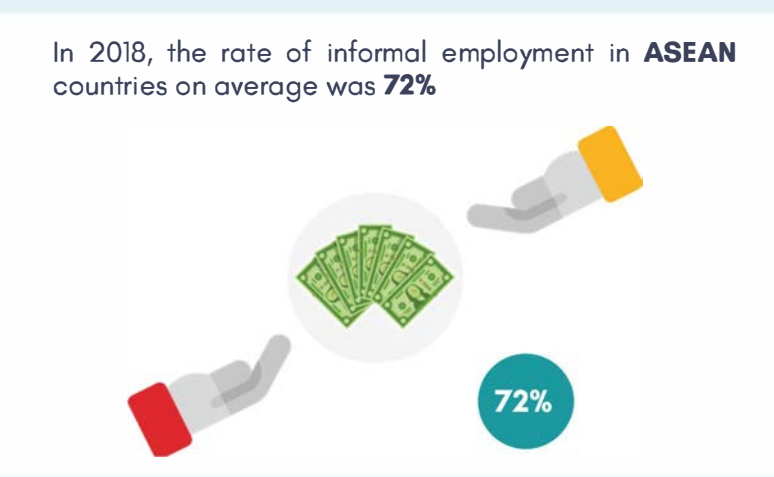
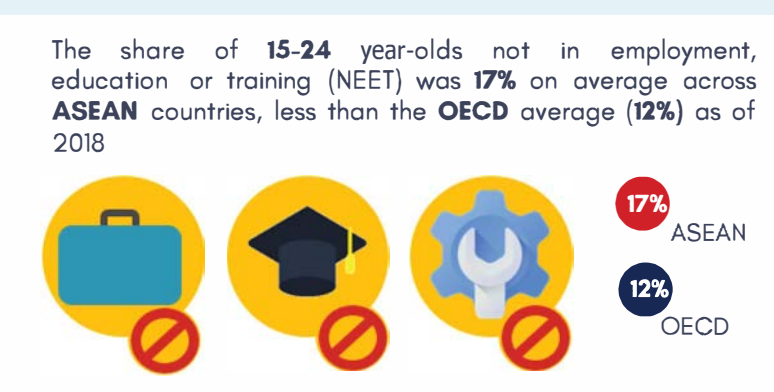
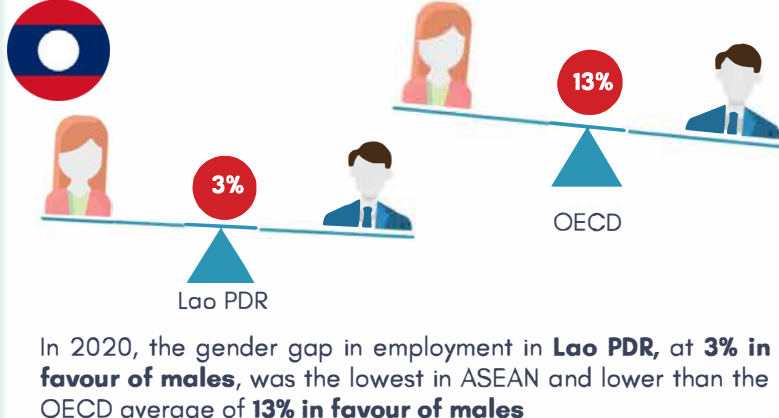
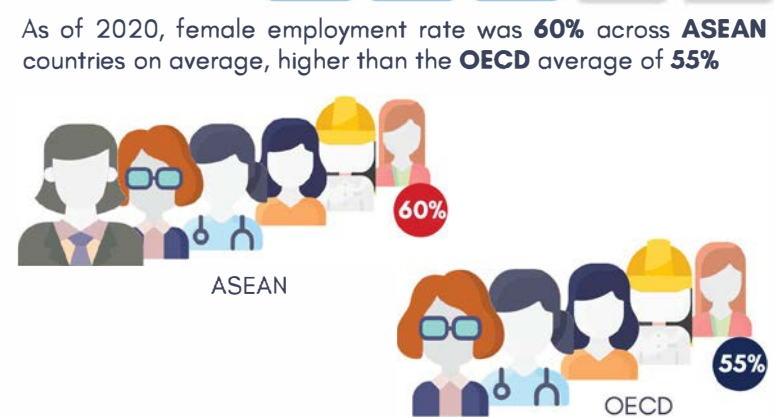
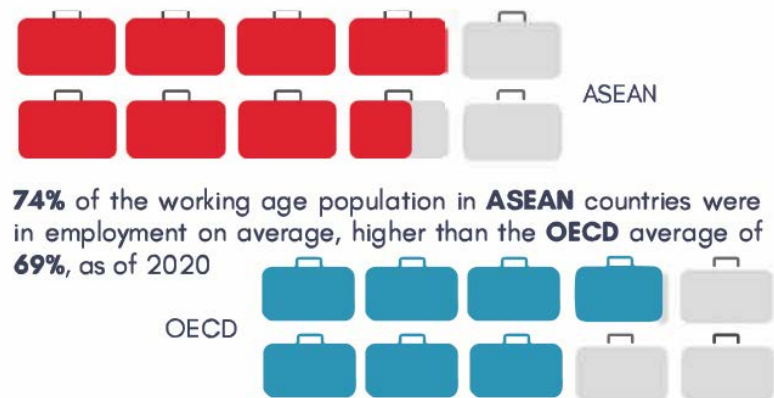


Adolescence



Middle and late adulthood

4.1. Promoting participation in the labour market and society



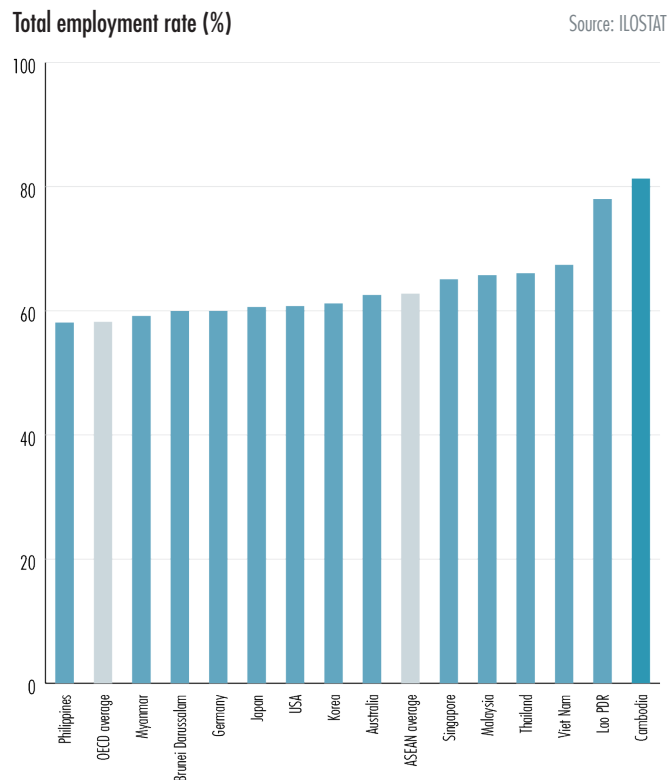
*Data sources are shown in the corresponding figure notes in this chapter.

4.1. Promoting participation in the labour market and society

The employment rate in Southeast Asia is relatively high, albeit with significantly lower rates for women, youth and immigrants

The employment rate in Southeast Asian countries is relatively high. The total employment rate, which is the share of people of working age in employment, across ASEAN countries (63%) is slightly higher than the OECD average (58%) (Figure 4.1). While Cambodia (81%) and the Philippines (58%) stand out with relatively high and low levels respectively, most ASEAN countries have a similar employment rate, at around 60%.

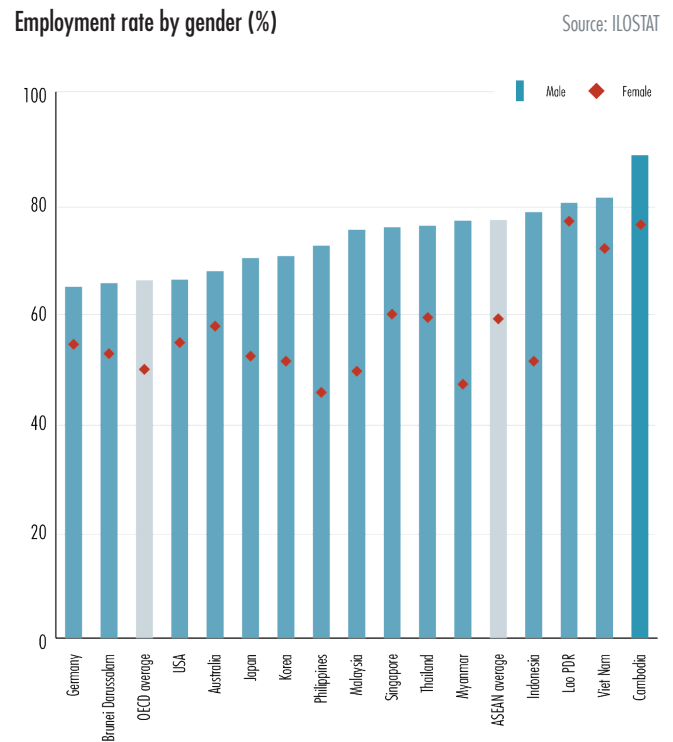
FIGURE 4.1



The employment gender gap is significantly larger in Southeast Asian countries, compared to OECD countries. On average, male employment in ASEAN countries is higher than females by 17 percentage points, compared to an average gap of 7 percentage points (pp) among OECD countries (Figure 4.2). Myanmar, Indonesia, the Philippines and Malaysia have significantly higher gender differences of more than 25 pp, while Lao PDR and Cambodia have much lower gaps of around 10 pp. The higher employment gender gaps may be partially attributed to female under-representation in key sectors such as STEM (See Chapter 3) or a lack of favourable working conditions making it difficult for women to combine work and family responsibilities

(OECD, 2019^[5]). Even when women are working, many often do so in informal employment with lower quality conditions. Closing the gender gap in employment could help alleviate skills shortages and provide an important boost to economic growth in these countries.

FIGURE 4.2

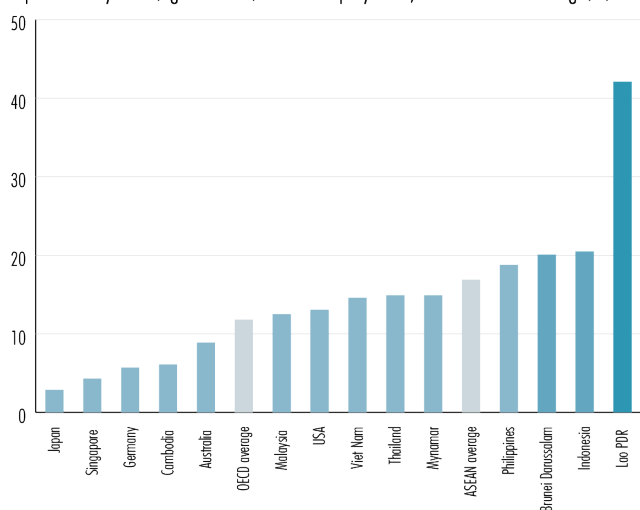


A significant proportion of youth (15 to 24 years old) in Southeast Asia is not in employment, education or training (NEET). This means that they are not gaining experience in the labour market nor developing their skills. A high NEET rate reflects structural challenges including drop-outs, lack of motivation and opportunities to develop relevant skills, shortage of decent jobs, and an absence of career guidance, among others. Most Southeast Asian countries have, on average, a larger proportion of NEET youth (17%) compared to the OECD average (12%), (Figure 4.3). Lao PDR (42%) has the highest NEET rate by a large margin, while Singapore (4.3%) has the lowest share of NEET youth in Southeast Asia. While youth in education are typically covered by ministries responsible for Education and youth at work by the ministries responsible for Employment, youth that are NEET often fall between the cracks of these ministries and may thus not be sufficiently monitored and supported. They are at risk of becoming socially excluded, with income below the poverty line and lacking the skills to improve their economic situation (OECD, 2019^[5]).

FIGURE 4.3

Rate of youth not in employment, education or training (NEET)

Proportion of youth (aged 15-24) not in employment, education or training (%)

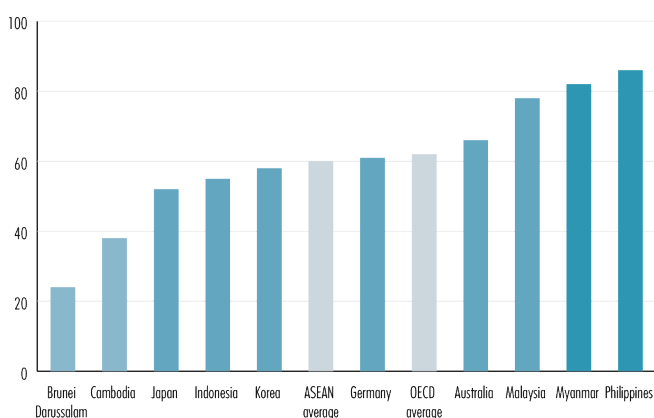


Source: ILOSTAT

The employment rate of immigrants varies across Southeast Asia. Among countries with available data, the Philippines, Myanmar and Malaysia are among the countries with the highest percentage of immigrants employed, around or above 80%, which is higher than all neighbouring OECD countries for which there is data available (Figure 4.4). Brunei Darussalam (24%) has the lowest employment rate for immigrants, followed by Cambodia (38%) and Indonesia (55%). The ASEAN average (60%) is comparable to the OECD average (62%). Attracting migrants with relevant skills is important for helping countries to respond to the skills shortage challenges associated with population ageing, skills mismatches and for building a knowledge-based society. Making the most of migrants' skills is another important consideration in promoting skills use, which in turn requires supporting them to overcome obstacles such as language barriers and poor recognition of foreign credentials (OECD, 2019^[5]).

FIGURE 4.4

Employment rate of immigrants (%)



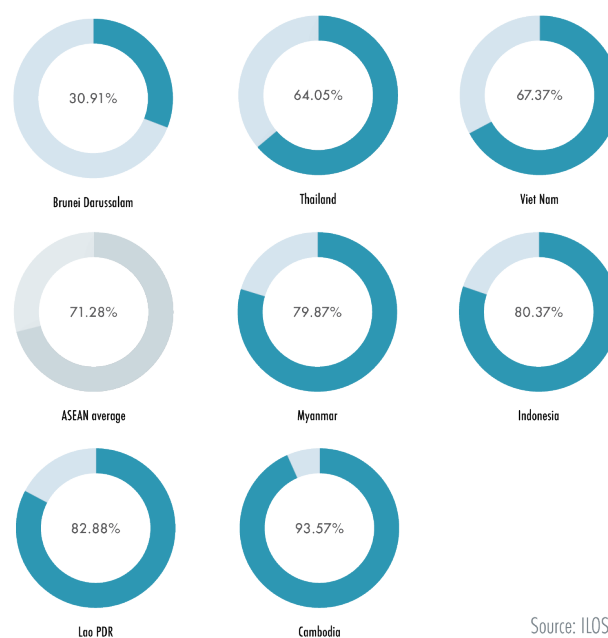
Source: ILOSTAT

A relatively high share of people employed in Southeast Asian countries are employed informally with significant disadvantages

Widespread informal employment in Southeast Asia is a policy concern. The share of informal employment as percentage of total employment in Southeast Asia (71%) is significantly higher than the OECD average (31%) (Figure 4.5). Cambodia (94%) has the highest proportion of informal employment, followed by Lao PDR (83%), Indonesia (80%) and Myanmar (80%), while Brunei Darussalam (31%) has the lowest share among countries with available data. Informal workers are often in the informal sector due to their lower skills level and, by extension, lower levels of productivity. Low productivity workers do not generate sufficient profits for firms to justify paying the additional costs associated with formalising their employment. As firms and workers in the informal sector often pay no or limited taxes, a large informal sector limits the tax base and the redistribution possibilities of national tax/benefit systems. In addition, the limited mobility between formal and informal sectors restricts labour market inclusiveness, disproportionately affecting certain workers (e.g. women, migrants, domestic workers, on-call workers and indigenous people). Informal workers lack basic income security, social protection and health care, which makes them particularly vulnerable during a pandemic such as COVID-19, as many have no choice but to continue to work, if they can, even if their workplaces lack security measures to protect them from infection. Informal workers have few opportunities for further upskilling (ILO, 2019^[33]).

FIGURE 4.5

Informal employment as a share of employment (%)



Source: ILOSTAT

COUNTRY SPOTLIGHT



Cambodia's efforts to promote female participation in the labour market

Each line ministry in Cambodia has a gender working group responsible for developing and implementing a gender mainstreaming action plan (GMAP). For instance, the Ministry of Labour and Vocational Training has been committed to promoting gender equality through initiatives in the areas of employment, migration and vocational training. The Ministry of Commerce developed a GMAP providing concrete initiatives to assist women business owners to expand their business. The Ministry of Agriculture, Forestry and Fisheries developed a GMAP to promote greater inclusion of women in the civil service and allow more capacity for rural women to have stronger rights for social land concession, participating in the private sector, participating in village and community groups, credit and extension services.

Source: Asian Development Bank (ADB) (2015), *Promoting Women's Economic Empowerment in Cambodia*.



Philippine's JobStart Philippines (JSP) Programme

The Department of Labour and Employment (DOLE) introduced the JobStart Philippines Programme (JSP) to reduce the high percentage of youth not in employment, education, or training. The JSP provides young Filipinos with technical training and supports them to enter the labour market by matching jobseekers with employment opportunities. JSP is developed as an employer-led programme that offers skills training, one-on-one career coaching, and opportunities for technical training and internships with private sector employers.

Source: ADB (2018), *Social Protection Brief: Reducing Youth Not in Employment, Education, or Training through JobStart Philippines*.



Singapore's programme to support migrant workers

The Settling-In Programme (SIP) is a compulsory course that provides training for Foreign Domestic Workers (FDWs) to work in Singapore. It includes regulatory information on their rights and responsibilities; adapting to living and working in Singapore; fostering good working relationships in the household; stress management; work safety and ways to seek help when in need. All first-time FDWs are required to complete the course within the first three days of their arrival in Singapore. The cost of the SIP is borne by their employers. The SIP is conducted in English or in the FDWs' native languages, such as Bahasa Indonesia, Tagalog, or Burmese.

Source: ASEAN (2017), *Compendium on Migrant Worker's Education and Safe Migration Programmes*.



Indonesia's vocational training programme for informal workers

The Ministry of Manpower and Transmigration oversees Technical and Vocational Education and Training centres known as Balai Latihan Kerja (BLK). The BLK centres provide vocational training, which enable informal workers to receive a formal education qualification and then find jobs in the formal sector. Courses are provided free of charge and are offered in all provinces and in some districts. The BLK programmes cover sectors, such as hotel, tourism, IT, agriculture, construction, commerce, among others. The majority of BLK centres are administered by provincial and district governments.

Source: ILO (2012), *Social protection assessment based national dialogue: Towards a nationally defined social protection floor in Indonesia*; Bai (2019), *Vocational Education and Training in ASEAN Member States: Current Status and Future Development*.

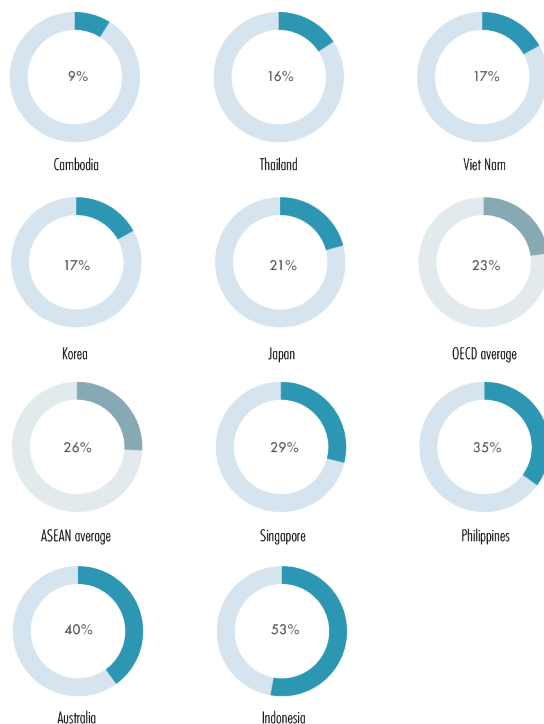
Participation in society varies significantly

Participation rates in volunteering vary significantly across Southeast Asia. Volunteering in society can occur through engagement with organisations related to social welfare, sports, environment, religion, political parties, hobbies and others. The volunteering rates in countries like Indonesia (53%) are relatively high, while the rates in Thailand (16%) and Cambodia (9%) are relatively low (Figure 4.6). The average across ASEAN countries (26%) is slightly higher than the OECD average (23%). The differences may, in part, be due in part to public and private sector policies. For example, in some education systems, volunteering is included in the curricula and is sometimes even required of students as a prerequisite for graduation. Corporate volunteering is also growing in importance in many countries. Using skills in society in the form of volunteering helps individuals to build stronger trust in others, in institutions and governments, as well as to perceive themselves as an active member of society. At the societal level, it can contribute to fostering a more inclusive and cohesive society (OECD, 2019^[5]).

FIGURE 4.6

Participation in voluntary work across OECD and ASEAN countries

Share of people who volunteered time to an organisation in the past month (%)



Source: OECD (2019), *Society at a Glance Asia Pacific 2019*

COUNTRY SPOTLIGHT

Indonesia's Volunteer Society (Masyarakat Relawan Indonesia)



The Indonesian Volunteer Society (Masyarakat Relawan Indonesia: MRI) is an organisation that promotes volunteering and it was initially established in response to the tsunami that affected Indonesia in 2004. MRI's core activities are providing training for volunteers to prepare them as coaches, mentors and facilitators for promoting community development. The training covers principles of volunteerism and includes leadership, disaster management, and humanitarian programme management, among others. Trained volunteers are given opportunities to plan and implement action programmes in teams to assist and empower communities, especially in response to natural and humanitarian disasters at home or internationally.

Source: UNDP/ILO (2018), *Youth Volunteerism and Skills Development Asia Pacific*; Indonesia Volunteer Society (2020), Masyarakat Relawan Indonesia.

Australia's Volunteers Programme



The Australian Volunteers Programme is a government-funded volunteer programme that matches Australians with partner organisations in the Indo-Pacific region. The programme supports partner countries and organisations to achieve their development goals, provides Australian volunteers with opportunities to develop and use their skills, and appreciate more the value of volunteering in Australia and overseas. Volunteers lend their expertise to local organisations and governments and help build better businesses, civil society organisations, government departments, and education and health organisations. In 2017–18, 1097 Australians volunteered in 723 organisations in 26 countries with the Programme's budget of approximately 37 million AUD.

Source: UNDP/ILO (2018), *Youth Volunteerism and Skills Development Asia Pacific*; DFAT (2018), *Development for all evaluation of progress*; The Australian Volunteers Programme Website (2020).

4.2. Making intensive use of skills

MAKING INTENSIVE USE OF SKILLS



Across the **OECD**, the use of reading skills at work is **positively correlated** with productivity (GDP per hour worked), with a coefficient of **0.54**, as of 2015



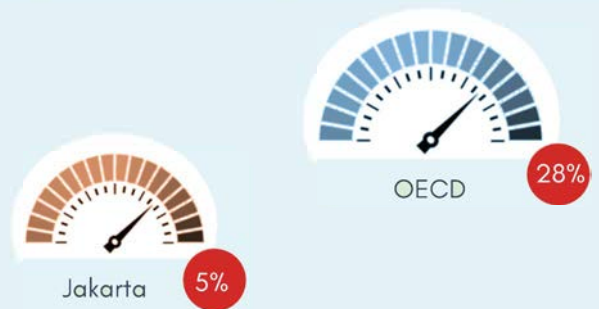
Singapore > OECD



In 2015, 16-65 year-olds in **Singapore** used reading, writing, numeracy, ICT and problem solving skills slightly **more frequently** at work than those in the average **OECD** country.



Across the **OECD**, the adoption of High Performance Workplace Practices (HPWPs) is positively correlated with the use of reading skills at work, with a coefficient of **0.72**, as of 2015



In 2015, in **Jakarta (Indonesia)** **5%** of jobs had a high prevalence of High Performance Workplace Practices (HPWPs), less than the **OECD** average of **28%**



In 2012, the **ASEAN** average score for reliance on professional management (on a scale of 1 to 7, where a higher score indicates that managers are chosen with regard to merit and qualifications) was **4.7** compared to the **OECD** average of **5.1**



In 2012, **Philippines** scored **4.9** in reliance on professional management, higher than the **ASEAN** average and close to the **OECD** average of **5.1**



Across the **OECD**, intensive reading at home **increased** the likelihood of having trust in others, regular volunteering, strong political efficacy and having very good or excellent health, as of 2015

*Data sources are shown in the corresponding figure notes in this chapter.



Singapore = OECD



In 2015, 16-65 year-olds in **Singapore** used reading, writing, numeracy and ICT skills about **as frequently** at home, as those in the average **OECD** country.

4.2. Making intense use of skills

Across countries skills can be used more intensively at work through the adoption of high performance workplace practices

The intensity of skills use at work varies across countries. Information processing skills used at work include writing and reading, numeracy, problem solving and Information Communication Technology, among others (Figure 4.7). These are measured in the OECD Survey of Adult Skills on a scale from 1 to 5 where the higher the number, the more frequent the reported use of a particular skill. In most countries, there is some variation in the intensity of use across information processing skills. In Singapore, for example, there is a relatively high use of skills across all information processing skills, while in Indonesia (Jakarta) the use across all information processing skills is relatively low. The intensity of skills use at work matters for workers, firms and countries. For workers, higher skills use at work is associated with higher wages and higher job satisfaction. Within firms, better skills use is associated with higher productivity and lower staff turnover. Higher labour productivity, in turn, is associated with more inclusive economic growth at the country level (OECD, 2019^[5]).

Employers can make more intensive use of their employees' skills through the adoption of high performance workplace practices (HPWPs). Such practices include teamwork, task discretion, mentoring, job rotation, applying new learning, incentive pay, and flexible working hours. HPWPs are the strongest factors in determining the level of skills use of employees, more so than firm size, skill proficiency of workers, industry, occupation or country effects. Across countries, the higher the share of jobs reporting high levels of HPWPs, the higher the use of information-processing skills, such as reading (Figure 4.8). Compared to the OECD average (27%), Singapore (26%) has a comparable share of jobs with HPWPs, while the share in Indonesia (1.98%) is relatively low. Promoting HPWPs is crucial to increase productivity in firms. HPWPs are most commonly employed in large firms, while small- and medium-sized enterprises (SMEs) find it difficult to put these types of practices in place, due to a lack of capacity in managing human resources (OECD, 2019^[5]). Policies that seek to promote the development of HPWPs need to be complemented with programmes to develop managerial skills.

FIGURE 4.7

Source: OECD Survey of Adult Skills (PIAAC) (2012,2015), Table A4.1

Information-processing skills used at work

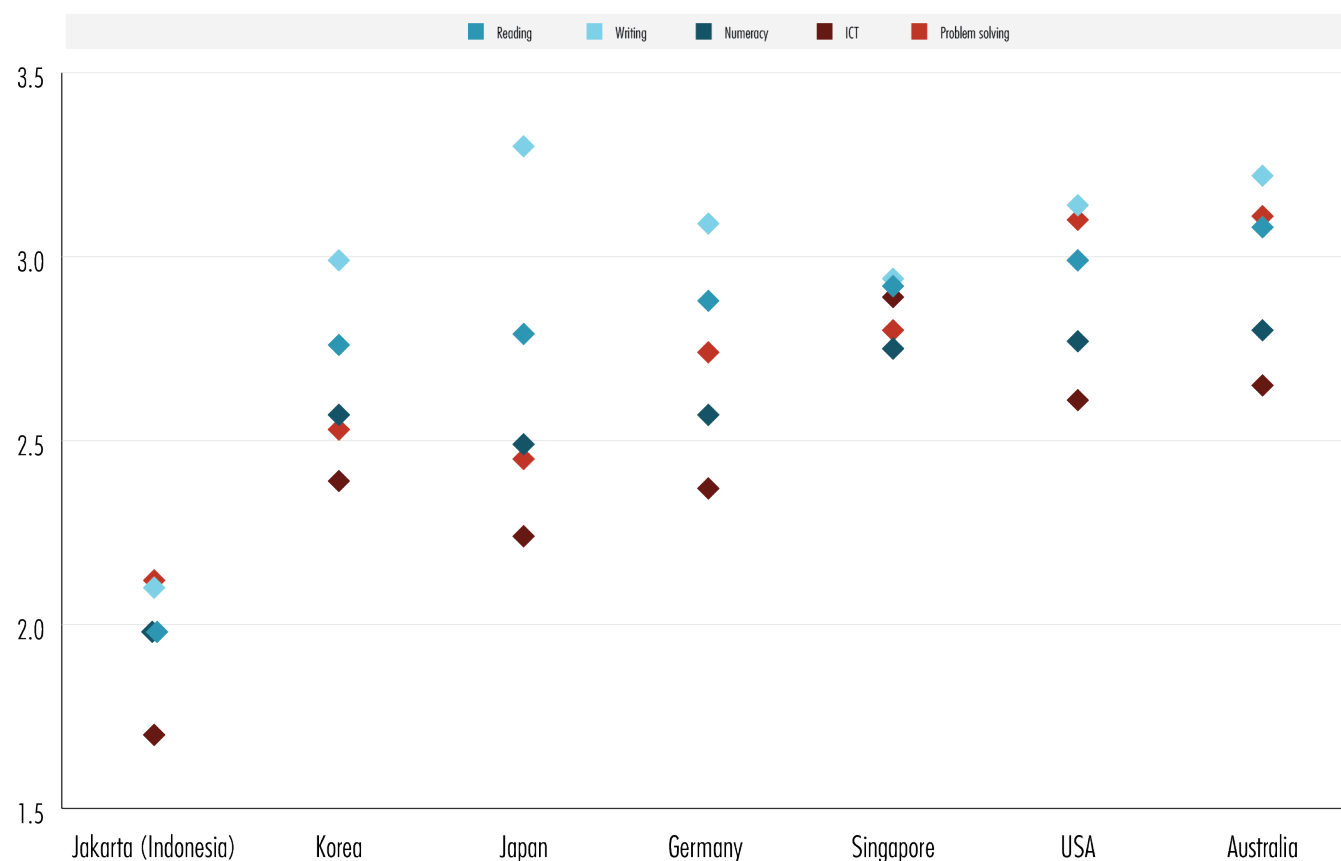


FIGURE 4.8

Relationship between the use of reading skills at work and the adoption of HPWPs

Source: OECD Survey of Adults Skills (PIAAC) (2012, 2015)

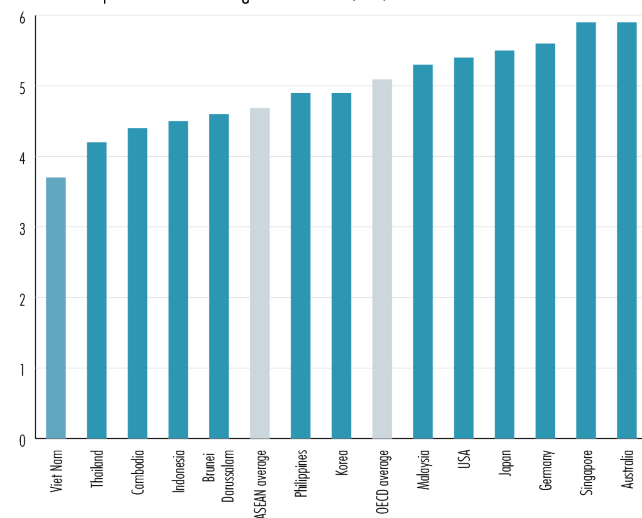


Management capacities could be increased to foster better skills use. Across most ASEAN countries, the share of firms that rely on professional management, measured on a 7 point scale, is relatively low (4.3) in comparison to the OECD average (5.2). The exceptions are Singapore (5.9) and Malaysia (5.3), which had higher levels than the OECD average (Figure 4.9). Further increasing management capacity could foster the adoption of HPWPs in Southeast Asian firms, leading to better use of their employees' skills and subsequently increasing productivity and economic growth. In the context of COVID-19, more could be done to support firms in introducing health and safety measures in workplaces and adopting technological solutions and managerial practices allowing workers to work remotely, when possible.

FIGURE 4.9

Reliance on professional management

Reliance on professional management score (1-7)

Source: World Economic Forum (2013_[4]). The Global Competitiveness Report 2012-13

COUNTRY SPOTLIGHT

Viet Nam's Sustaining Competitive and Responsible Enterprises programme



Viet Nam's Sustaining Competitive and Responsible Enterprises (SCORE) programme is a practical workplace improvement programme to increase the productivity in small to medium-sized enterprises (SMEs) and support them to access global supply chains. The programme increases awareness of responsible workplace practices and provides consulting and training services. The training covers workplace co-operation, quality management, clean production, human resource management, and occupational health and safety.

Singapore's Standards, Productivity and Innovation Board



Singapore's Standards, Productivity and Innovation Board (SPRING) is the main government agency dealing with productivity. SPRING's functions cover business process design, business performance (especially amongst SMEs), facilitating new start-ups, introducing business excellence models and encouraging technology adoption. SPRING provides grants, advice, subsidised consultancy and diagnostic toolkits to improve work processes, high performance workplace practices and technology adoption for raising productivity.

Source: OECD/ILO (2017). *Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs*.

Skills are used intensively in everyday life to varying degrees across countries

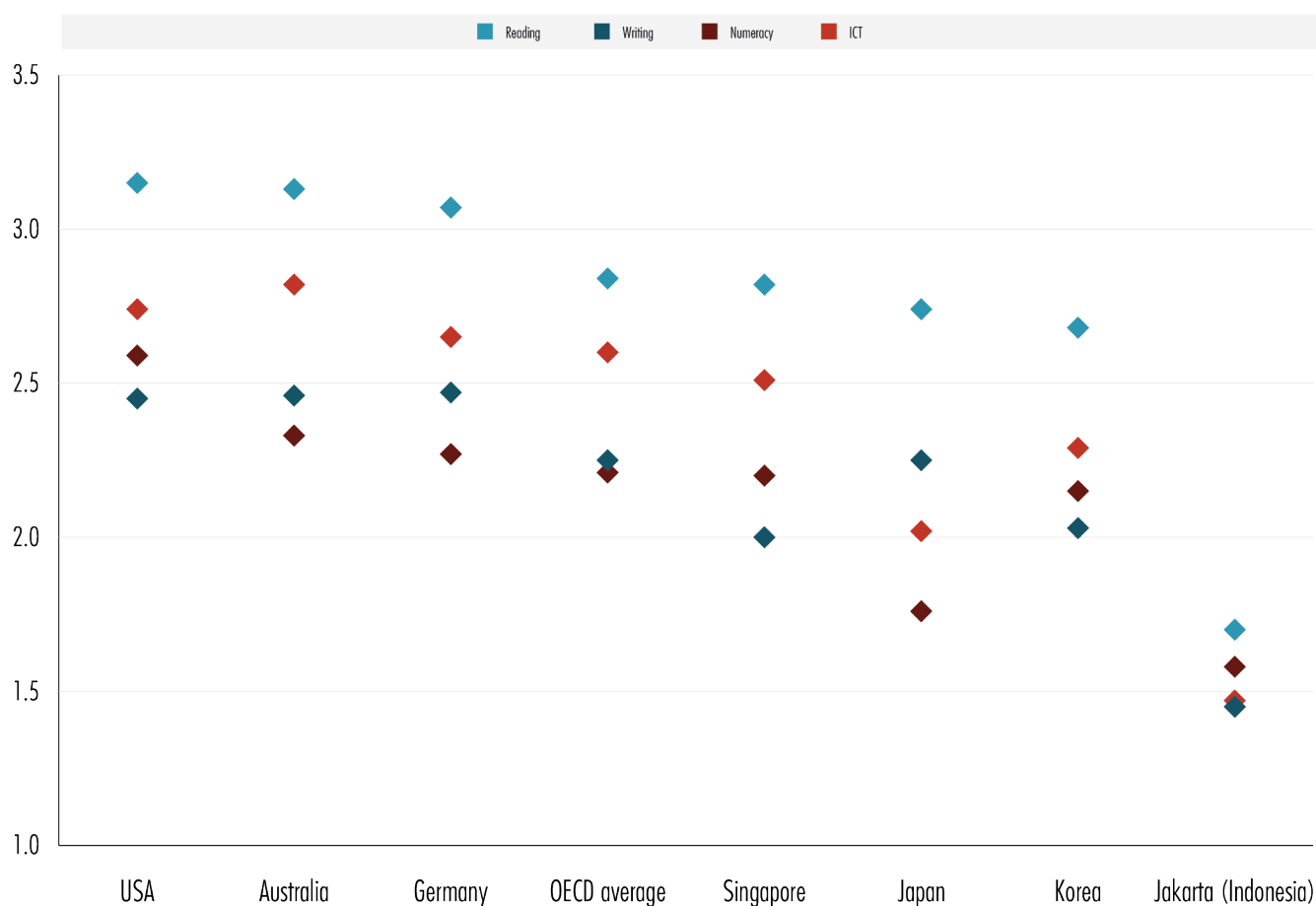
Across countries, the most common information-processing skills used in everyday life are reading, ICT, writing and numeracy. For Singapore the use is around the OECD average and for Indonesia (Jakarta), it is relatively low (Figure 4.10). The use of skills in everyday life matters for individuals and society. Individuals with higher skills use in everyday life report higher levels of trust, regular volunteering, strong political efficacy and

very good or excellent health. How people use their skills in everyday life matters also for social cohesion, especially in the context of megatrends. An ageing population leads to a larger share of retirees, while automation and more flexible forms of work contribute to a larger share of adults spending more time outside of work. Policies that encourage participation in civil society, community organisations and associations can help maximise the social returns on investments in skills (OECD, 2019^[5]).

FIGURE 4.10

Information-processing skills use in everyday life

Source: OECD Survey of Adult Skills (PIAAC) (2012,2015)



4.3. Increasing demand for higher-level skills

INCREASING DEMAND FOR HIGHER-LEVEL SKILLS

ASEAN **38**

OECD **50**



In 2019, **ASEAN** countries on average scored **38** on the Global Innovation Index, against an **OECD** average of **50**, on a scale of 0-100 (higher scores implying higher innovation)



43



In 2019, **Malaysia** scored **43** on the Global Innovation Index, the highest in ASEAN after Singapore (58)

ASEAN

0.8%

2%

OECD

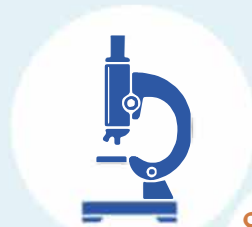


In 2017, **ASEAN** countries on average spent, **0.8%** of their GDP on R&D, less than the **OECD** average of **2%**



2.1%

6600



In 2015, **Singapore** spent **2.1%** of its GDP on R&D, and employed approximately **6600** R&D personnel per million inhabitants, the highest in ASEAN



18%

ASEAN

11%

OECD



18% of 18-64 year-olds in **ASEAN** countries and **11%** in **OECD** countries on average participated in early stage entrepreneurship activities



23%

In 2018, **23%** of 18-64 year-olds in **Viet Nam** participated in early stage entrepreneurship activities

*Data sources are shown in the corresponding figure notes in this chapter.

4.3. Increasing demand for higher-level skills

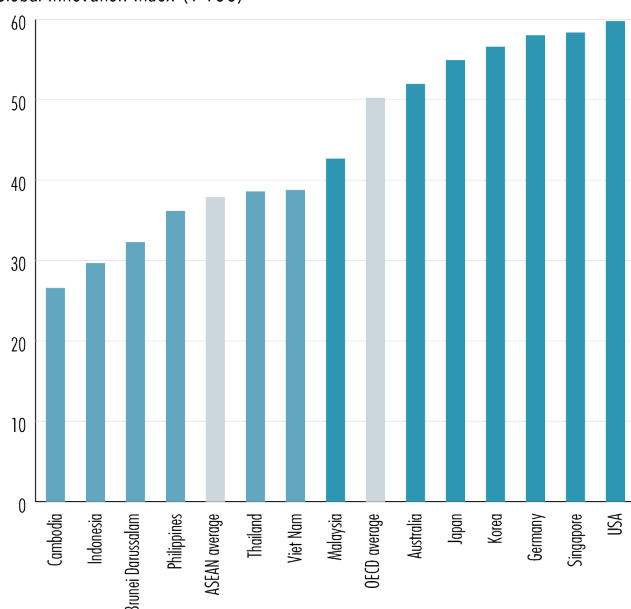
Innovation can increase demand for higher-level skills

Innovation across Southeast Asian countries varies significantly. Innovation occurs with creating, developing and diffusing new products and processes that allow firms to move to higher value-added activities. According to the Global Innovation Index (GII), which measures innovation on multiple dimensions¹ from a 0-100 scale, ASEAN countries on average (38) are performing lower than OECD countries on average (50). Singapore (58) is an exception, as it not only surpasses all ASEAN countries, but is also ahead of many OECD countries (Figure 4.11). Malaysia (43), Viet Nam (39) and Thailand (39) are performing slightly better than the ASEAN average, but are still below the OECD average. When skills policies are well aligned with innovation policies, employers can access the skills they need to move their firms to higher value-added and innovation intensive activities. Innovation requires strong science, technology, engineering and mathematics (STEM) skills, as well as soft skills and entrepreneurial skills (see Chapter 3) (OECD, 2019^[5]).

¹ Innovation dimensions: Institutions (political, regulatory, business environment), human capital and research, infrastructure, market sophistication, business sophistication, knowledge & technology outputs, creative outputs

FIGURE 4.11

Global Innovation Index Global Innovation Index (1-100)



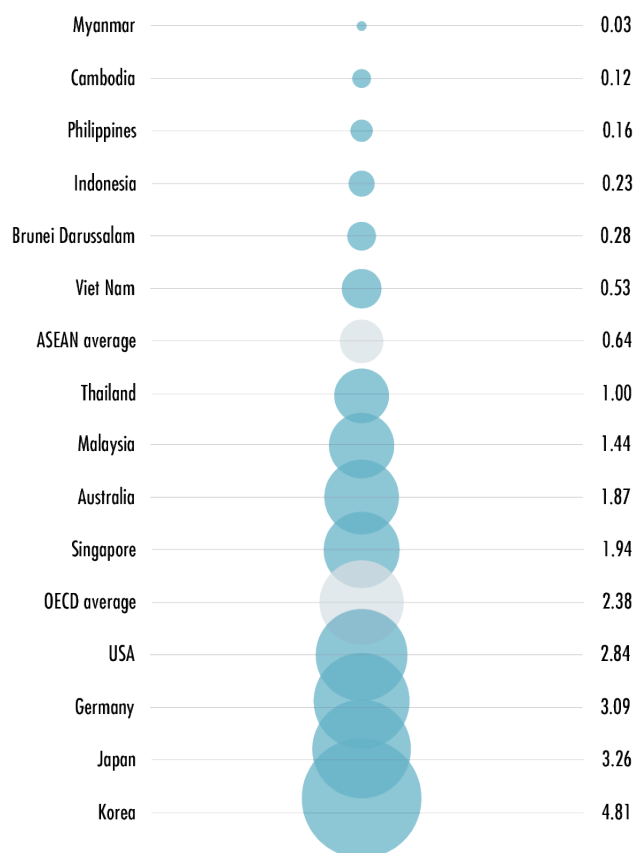
Source: Cornell University, INSEAD and WIPO (2019). Global Innovation Index 2019

Research and development can spur innovation and generate demand for higher level skills, but expenditure is relatively low in Southeast Asian countries

Government expenditure in research and development is low in Southeast Asian countries. ASEAN countries invest significantly less on average (0.64% of GDP) in research and development (R&D) compared to OECD countries (2.38%) (Figure 4.12). Singapore (1.94%) and Malaysia (1.44%) show the highest level of R&D spending, while countries like Myanmar (0.03%) and Cambodia (0.12%) invest very little. Low government expenditure in R&D is a concern, as investing in R&D is an important driver for spurring innovation and enhancing market demand for higher-level skills. Governments can combine support for R&D with skills policies to simultaneously boost demand and supply for skills that complement high-tech production. Adults have then continuous incentive to upgrade their skills, knowing that these can be effectively used in the labour market and are rewarded accordingly (OECD, 2019^[5]).

FIGURE 4.12

Research and development spending R&D spending (% of GDP)



Source: UNESCO/UIS (2020), R&D Spending.

Fostering entrepreneurship is another way to spur innovation and demand for skills, and is becoming increasingly common across Southeast Asian countries

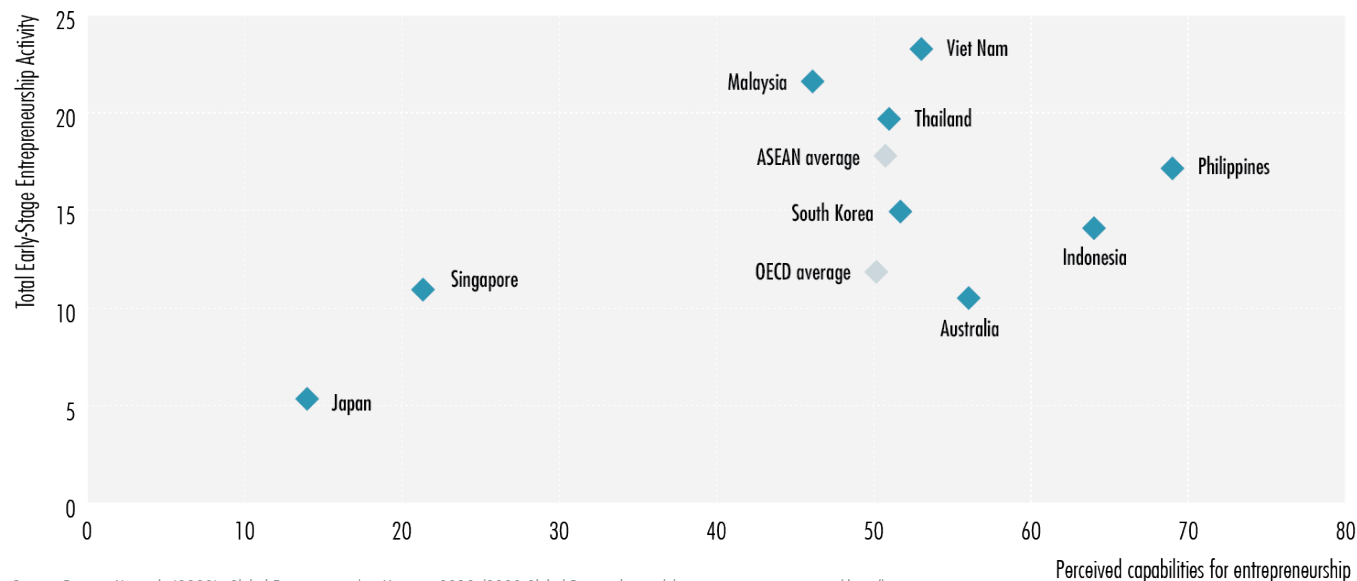
Figure 4.13 shows how well individuals across countries perceive themselves to have the capabilities for entrepreneurship and total early stage entrepreneurship activity. On average, Southeast Asian countries score higher than OECD countries in perceived entrepreneurship capabilities and total entrepreneurship activity. The Southeast Asian countries with the highest share of individuals with perceived entrepreneurship capabilities are the Philippines (69%) and Indonesia (64%). While this share of individuals is lower in

Viet Nam (53%), Thailand (51%) and Malaysia (46%), these three countries have a higher share of individuals participating in early stage entrepreneurship activity. Singapore has a lower share of both groups of individuals (Bosma et al., 2020^[41]). Education can provide a foundation for entrepreneurship by fostering creative skills, the ability to identify opportunities, resilience to face challenges and management-related skills to establish new companies. Efforts are also needed to remove entry barriers for entrepreneurs and support promising start-ups to scale. By doing so, Southeast Asian countries can encourage the introduction of new technologies, higher productivity and thereby stimulate demand for high-level skills (OECD, 2019^[5]).

FIGURE 4.13

Perceived Capabilities and Total Early Stage Entrepreneurship Activity

Percentage of the 18-64 population who agree that they have the required knowledge, skills and experience to start a business and engaged in entrepreneurship;
Percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business



Source: Bosma, N. et al. (2020), Global Entrepreneurship Monitor: 2019/2020 Global Report, <https://www.gemconsortium.org/data/key-aps>.

COUNTRY SPOTLIGHT



Thailand's efforts to support start-ups

The Government of Thailand is actively promoting Thailand as a start-up nation. The National Innovation Agency of Thailand hosts the Startup Thailand event, which is the largest tech conference in Southeast Asia, in collaboration with related government alliances, the private sector, and the education sector. The Digital Economy Promotion Agency opened a government start-up centre in Bangkok to help start-ups to grow. This start-up centre will partially operate as a pioneer unit of the Internet of Things Institute, located in Thailand's special economic zone, called the Eastern Economic Corridor.

Source: Cornell University, INSEAD and WIPO (2019), Global Innovation Index 2019.

CHAPTER 5

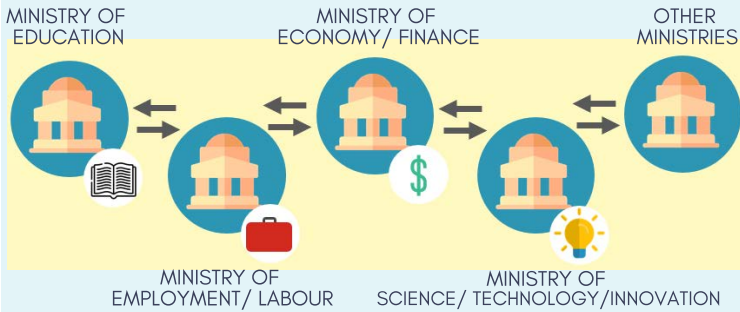
Strengthening the Governance of Skills Systems

Effective governance arrangements are the building blocks for improving Southeast Asian countries' performance in developing and using people's skills. Effective governance arrangements require collaboration across relevant ministries, across levels of government, and with a wide range of stakeholders, such as employers, unions, academics, NGOs, among many others. As skills systems evolve and become more complex, effective information systems, that policy makers, employers, individuals and others can access and use to inform their decisions, is becoming more important. A co-ordinated and coherent approach to financing skills is also needed to ensure that sufficient funding is available and that funding arrangements support all individuals, regardless of their ability to pay. This chapter presents four opportunities for Southeast Asian countries to strengthen the governance of their skills systems:

1. Promoting a whole-of-government approach
2. Promoting a whole-of-society approach
3. Building integrated information systems
4. Aligning financial arrangements

STRENGTHENING THE GOVERNANCE OF SKILLS SYSTEMS

PROMOTING A WHOLE-OF-GOVERNMENT APPROACH Strengthening Horizontal Co-ordination



NATIONAL GOVERNMENT



REGIONAL GOVERNMENT



LOCAL GOVERNMENT



PROMOTING A WHOLE-OF-GOVERNMENT APPROACH Strengthening Vertical Co-ordination

GOVERNMENT



LABOUR/TRADE UNIONS



EDUCATIONAL INSTITUTIONS



OTHER STAKEHOLDER ORGANISATIONS



EMPLOYERS



INDIVIDUALS



ACADEMIC EXPERTS

PROMOTING A WHOLE-OF-SOCIETY APPROACH Strengthening Stakeholder Engagement

RESEARCH ORGANISATIONS



INTERNATIONAL ORGANISATIONS



GOVERNMENT AGENCIES



EDUCATIONAL INSTITUTIONS



SOCIAL PARTNERS



USING INFORMATION IN SKILLS GOVERNANCE Building an Integrated Information System

GOVERNMENT



INTERNATIONAL ORGANISATIONS



CIVIL SOCIETY ORGANISATIONS



EMPLOYERS



INDIVIDUALS



FINANCING OF SKILLS SYSTEMS Aligning and Co-ordinating Financing Arrangements

5.1. Promoting a whole-of-government approach

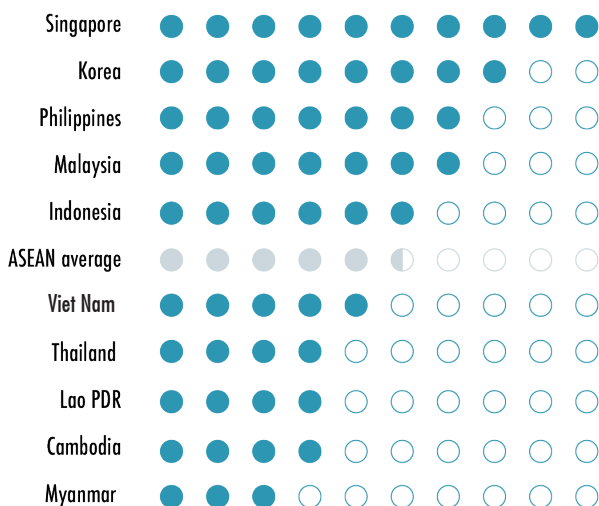
5.1. Promoting a whole-of-government approach

Horizontal collaboration across ministries could be raised to improve policy co-ordination

The level of policy co-ordination across Southeast Asian countries varies significantly. While the level of policy co-ordination for Singapore, the Philippines, Malaysia, and Indonesia is above the ASEAN average, for Vietnam, Thailand, Lao PDR, Cambodia and Myanmar it is below the ASEAN average (Figure 5.1). As the skills-related policies of various ministries can have overlapping or conflicting objectives, reflect competing political interests and interact positively or negatively with other policy areas, the government has to ensure that its overall skills agenda is coherent across ministries. Effective policy co-ordination should balance the trade-offs between various skills policy goals and assign responsibilities to relevant ministries in a transparent manner to avoid gaps, redundancies or friction between their respective skills policies. Horizontal collaboration across ministries can be fostered through a shared skills strategy that aligns and co-ordinates the various skills policies of ministries. While Singapore has a comprehensive skills strategy covering all skills relevant policy areas, many others have strategies that cover only certain aspects of the skills system, such as education (see Annex). Establishing inter-ministerial committees and commissions, requiring the sign-off on skills policy proposals by all relevant ministries, and rewarding cross-ministerial co-ordination, are other practices that Southeast Asian countries could further explore to improve the coherence and impact of their skills policies.

FIGURE 5.1

Level of policy co-ordination across government in Southeast Asian countries
Countries ranked in decreasing policy co-ordination level



Source: Bertelsmann Stiftung (2020), Bertelsmann Transformation Index 2020

COUNTRY SPOTLIGHT

Singapore's SkillsFuture Strategy



Singapore's SkillsFuture Strategy aims to provide Singaporeans with the opportunities to develop their fullest potential throughout life. It coordinates education and training efforts, provides individuals with skills information, promotes skills recognition and fosters a lifelong learning culture. SkillsFuture Strategy is overseen by the Council for Skills, Innovation and Productivity, which consists of representatives from six different ministries as well as various industry, unions, and education and training providers.

Source: OECD (2019), *Structural Policy Country Note: Singapore*.

Lao PDR's 8th National Socio-economic Development Plan



The goal of Lao PDR's 8th National Socio-economic Development Plan (NSED) is for Lao PDR to transition out of the 'less developed' country status by 2020. It seeks to achieve this by improving the skills of the workforce; increasing the number of technical experts and specialists; and enhancing the technical and professional capacity of civil servants and the private sector. The implementation and monitoring of the plan is co-ordinated between government agencies across ministries and levels of government, as well as with stakeholders.

Source: UNDP (2016), *Development Finance for the 8th National Socio-Economic Development Plan and the Sustainable Development Goals in Lao PDR*.

Vertical co-ordination across levels of government needs to be improved

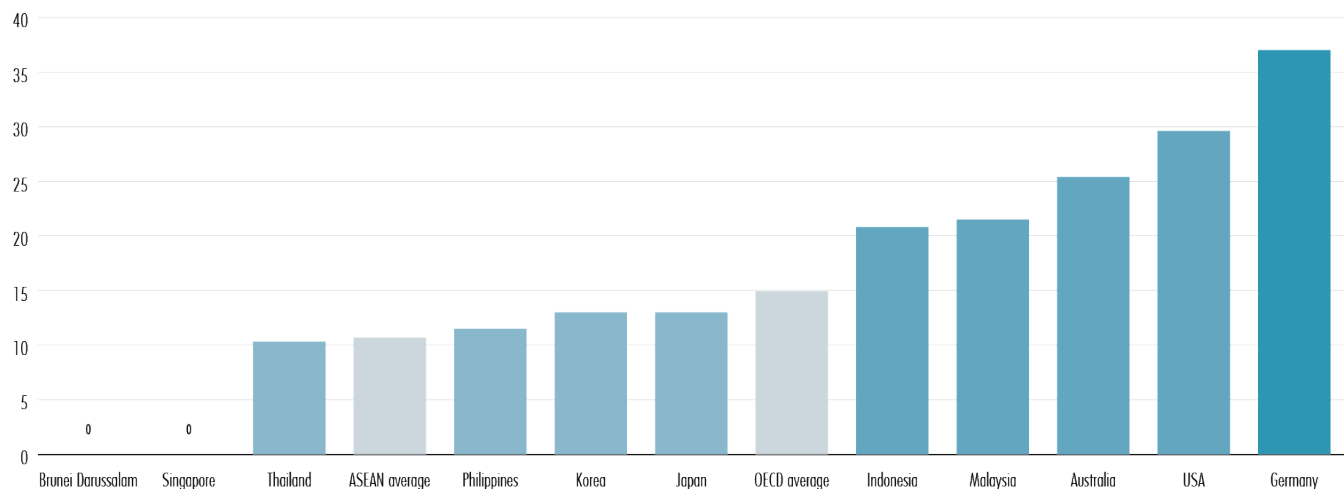
The level of decentralisation varies across Southeast Asian countries. The regional authority index measures the extent to which different levels of government in 81 countries can exert their authority in decision-making processes (Hooghe et al., 2016^[42]). The range of the index is between 0 and 38 with the higher numbers indicating a country being more decentralised. Data show that the OECD has on average a significantly higher score (15) compared to ASEAN Countries (11) (Figure 5.2), which means that OECD countries on average are more decentralised than ASEAN countries. Among Southeast Asian countries Malaysia and Indonesia are the countries where governments are more decentralised, while Thailand, Brunei Darussalam and Singapore are the countries where governments are least decentralised.

As more Southeast Asian countries move towards decentralising their education system and giving greater autonomy to local governments and schools (Park and Kim, 2020^[2]), effective vertical co-ordination mechanisms become more important. Further decentralisation can

increase responsiveness to local needs, but this process requires effective vertical co-ordination mechanisms in order to ensure that policies are implemented in a coherent way across the country. In Southeast Asian countries like Malaysia, Indonesia, Cambodia, and Viet Nam, local governments and schools have been given increasingly more responsibility to make decisions about how to provide education tailored to the local context (Hamzah and Razak, 2019^[45]; ASEAN, 2013^[46]; Bodewig et al., 2013^[47]). The shift toward a more decentralised education system has raised new challenges for co-ordination between the national and local governments, including difficulties in developing management capabilities at the local level, distributing financial resources and applying national quality standards (ASEAN, 2013^[46]; Martinez-Fernandez and Powell, 2010^[48]; ILO, 2015^[49]; ASEAN, 2013^[46]). Due to varying capacity across local governments, decentralisation efforts have often led to more disparities. For the majority of Southeast Asian countries, improving vertical co-ordination requires investments to raise local management capacity and capacity of national government to effectively engage with local government (ILO, 2015^[49]).

FIGURE 5.2

Level of decentralisation in Southeast Asian countries
Countries ranked in increasing order of decentralisation



Source: Hooghe, L. et al. (2016), *Measuring regional authority: a post-functionalist theory of governance*.

5.2. Promoting a whole-of-society approach

5.2. Promoting a whole-of-society approach

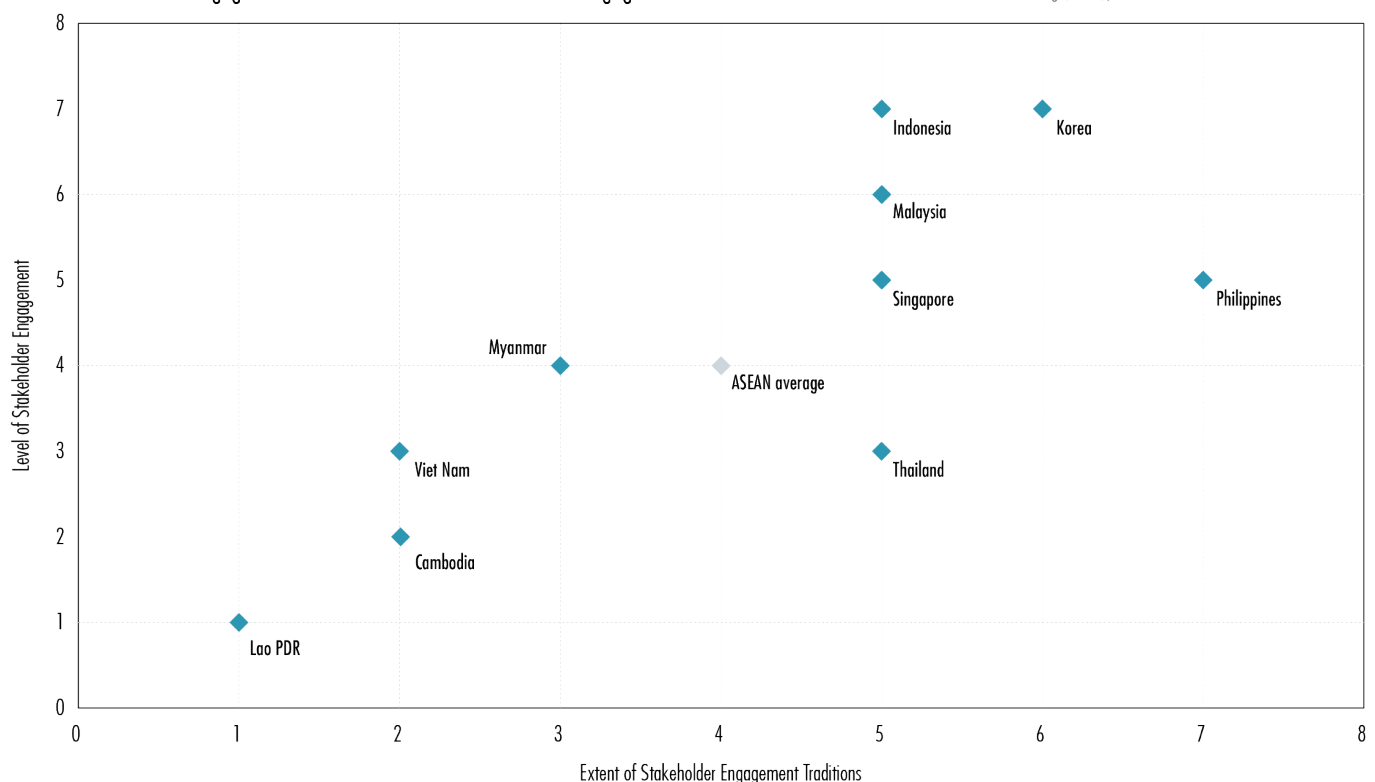
Improving stakeholder engagement across Southeast Asian countries would support building consensus on policy goals

The traditions and level of stakeholder engagement vary across Southeast Asian countries. Some Southeast Asian countries, such as Lao PDR, Cambodia and Viet Nam have relatively underdeveloped stakeholder engagement traditions, which means that they have few stakeholder organisations and low levels of social trust, among other factors (Figure 5.3). This translates into also lower levels of stakeholder engagement, which means that stakeholders in these four countries are participating less in the process of setting the agenda, co-designing policies, making decisions, implementing policies and monitoring performance. The Philippines, Indonesia, Singapore, and Malaysia have comparatively well developed stakeholder engagement traditions and, by extension, also higher levels of stakeholder engagement. Stakeholder engagement in skills policies can be enhanced through the creation of formal bodies that engage stakeholders in the policy making process. While most Southeast Asian countries have invested in the creation of such formal bodies in skills policies (see Annex), their effectiveness in engaging all relevant stakeholders could be raised.

FIGURE 5.3

Stakeholder engagement in Southeast Asian countries

Extent of stakeholder engagement traditions and level of stakeholder engagement



Source: Bertelsmann Stiftung (2020), Bertelsmann Transformation Index 2020.

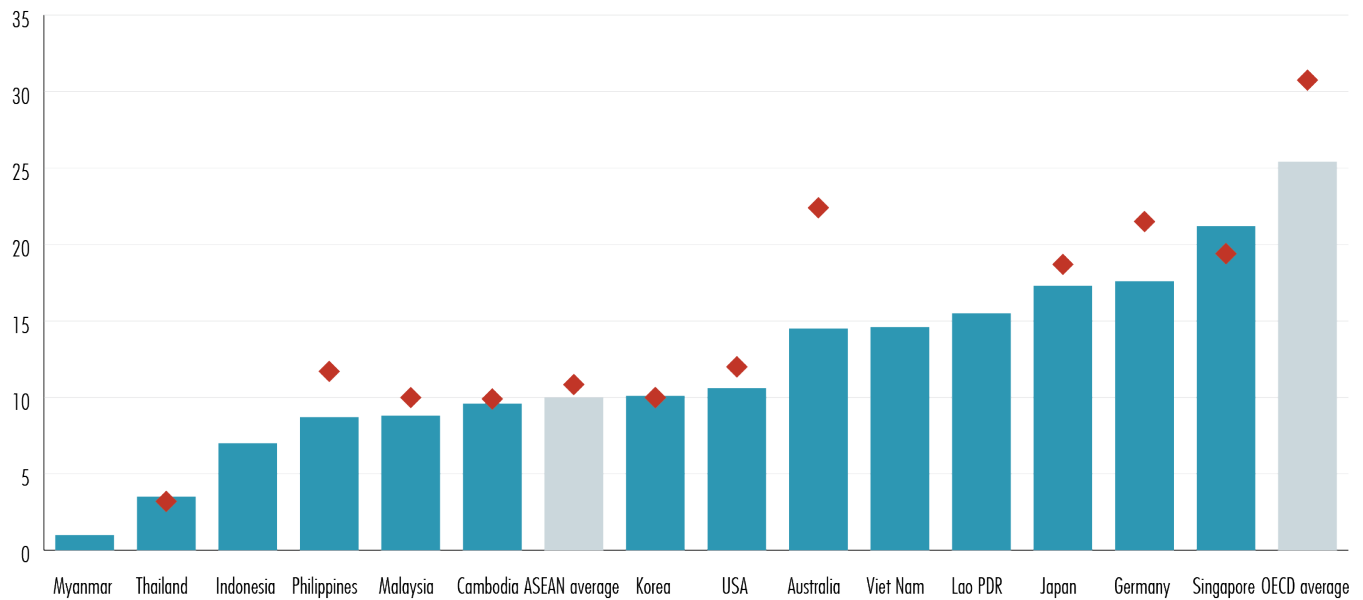
Engaging stakeholders, in particular marginalised groups, is a common challenge across Southeast Asian countries

The level of organisation and engagement of stakeholders varies across the region. While stakeholder groups participate in formal engagement bodies in Southeast Asian countries, many of the stakeholder groups often do not represent all relevant groups. For example, unions have only a limited coverage of workers (ILO, 2020^[50]). The union density rate, which is a measure of the share of employees being unionised compared to the total number of employees, is for Southeast Asian countries (9.4%) significantly lower on average than for OECD countries (24.7%). Singapore, Lao PDR, and Viet Nam have a rate between 15% and 21%, while for Cambodia, Malaysia, Philippines, Indonesia, Thailand and Myanmar the rate is below 10% (see Figure 5.4). Even if Southeast Asian governments engage effectively with the formal union organisations, there are still very many workers (e.g. informal workers) whose voices are not represented. The large informal sector means that many employers are also not properly represented in employers' associations. In addition, there are other marginalised stakeholders who are not well represented generally in formal organisations. These include, for example, women, youth and migrants.

FIGURE 5.4 Trade unions in Southeast Asian countries

Trade union density rate, 2005-2015 (%)

◆ 2005 ■ 2015 Source: ILOSTAT



COUNTRY SPOTLIGHT



Myanmar's Education Promotion Implementation Committee

The Education Promotion Implementation Committee under the President's Office consists of an Advisory Board and a Task force. The Advisory Board is made up of representatives from business, academia and civil society in Myanmar and the Task Force is composed of representatives from the different government ministries with responsibility for education. Some 18 working groups have been formed collectively from the Board and Task Force, each co-led by an Advisory Board member and a Task Force member. The working groups, which cover all aspects of the education system, provide recommendations to the committee that is drafting the National Education Law.

Source: OECD (2014), *Multi-dimensional Review of Myanmar: Volume 2. In-depth Analysis and Recommendations, OECD Development Pathways*.



Viet Nam's Association of Vocational Education and Social Work (AVESW)

The AVESW members are vocational institutions, firms that provide training themselves, individuals (scientists, formal officials, and other interested parties), and government officials. The association's objective is to enable members to share experiences and lessons learned, contribute to the policy-making process, raise the voice of training providers to the government, and advocate and disseminate policies for the TVET system. The Association undertakes research and conducts surveys and has also contributed to curriculum development and developed training materials based on ILO documents (e.g. occupational health and safety).

Source: National Institute for Vocational Education and Training (2018). *Viet Nam Vocational Education and Training Report 2016*.



Korea's Industry Skills Council

The Korea Industry Skills Council (ISC) was established to foster industry-led skills development. The ISC exist in 17 industries, are further divided into 456 sector associations and are financed by the Ministry of Employment and Labour. Each ISC consists of 20 representatives who are drawn from employer associations, unions, Ministry of Labour and Employment and other experts. ISCs develop the National Competence Standards and collaborate with other skills relevant councils and private training providers to offer training.

Source: Lee et al. (2019), "Written input prepared for the Korea governance review on adult learning"

5.3. Building an integrated information system

5.3. Building an integrated information system

Skills information needs to be accessible

Southeast Asian countries vary in the extent that they guarantee the right to information and make laws and government data publicly available. Southeast Asian countries like Viet Nam, Indonesia, Thailand, Malaysia, and Myanmar have relatively fewer measures that guarantee the right to information and make laws and government data publicly available. In contrast, Singapore has relatively more measures that guarantee the right to information and make laws and government data publicly available, similar to other OECD countries (Figure 5.5). Accessibility of skills information could be

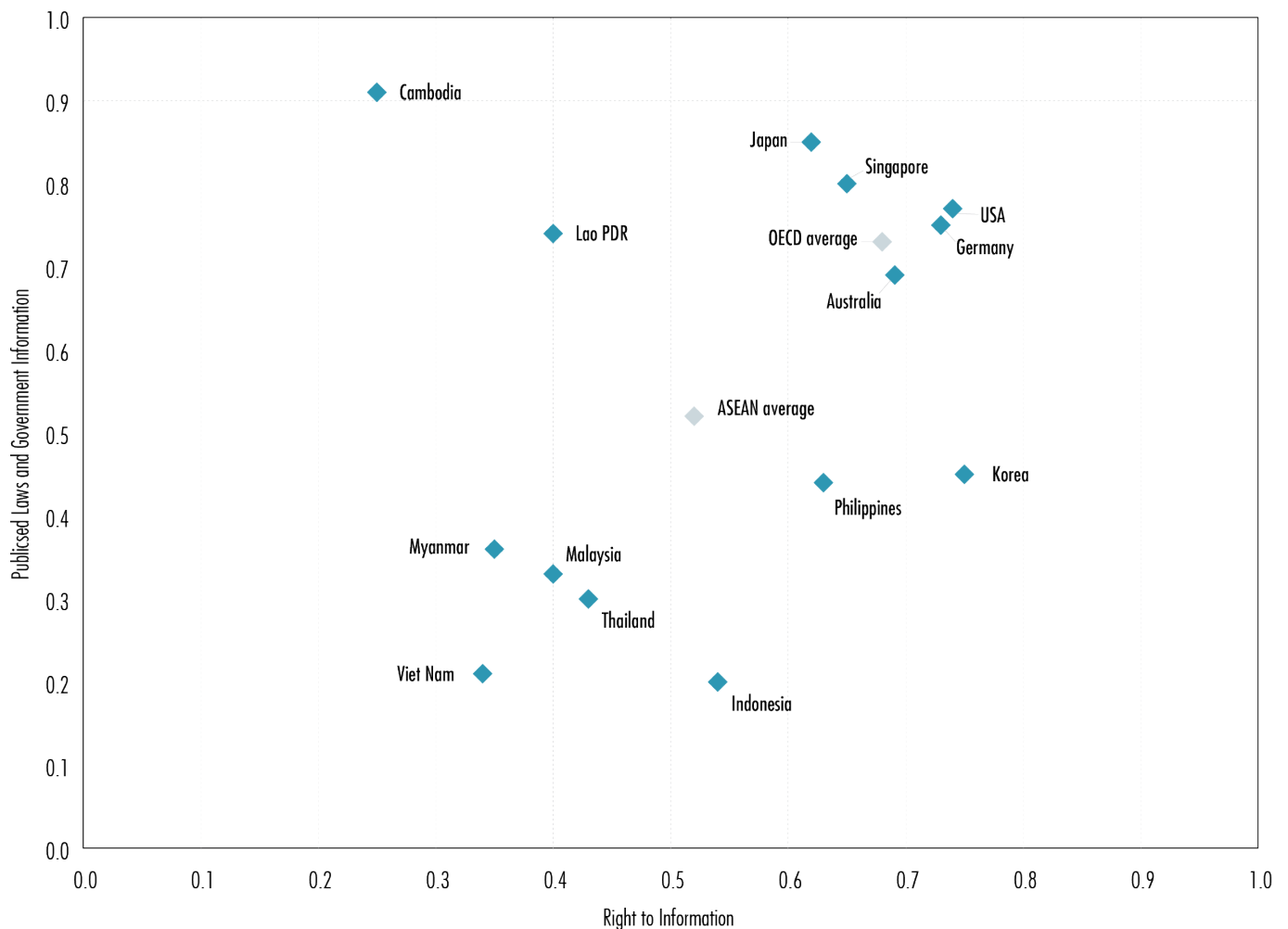
enhanced through a formal body that is responsible for managing and disseminating skills information. Almost all Southeast Asian countries have such a formal body in place (see Annex), but despite this there are often still some significant data gaps in terms of coverage, availability, usage by policy makers and stakeholders. The importance of the availability, dissemination and use of high quality skills information is underscored during the COVID-19 pandemic, as policy makers, employers, individuals among others are struggling to make informed skills related decisions.

FIGURE 5.5

Accessibility of information

Right to information as well as availability of publicised laws and government data

Source: World Justice Project (2020), Open Government Indicators.



Reliable skills information requires comprehensive coverage, which is still lacking in many countries

Across Southeast Asian countries, there are substantial gaps in available information on skills and performance (OECD, 2019^[31]). As many Southeast Asian countries depend on community-based early childhood education and care (ECEC), data collection to monitor equitable access to ECEC, and its quality and outcomes, is a challenge. Lack of up-to-date, systematic data on out-of-school children particularly in remote, rural areas and from marginalized groups poses another challenge (UNESCO, 2017^[61]). Data on participation rates for children with disabilities and the transition from school to work of youth are limited to household surveys (GPE, 2019^[56]; OECD/ADB, 2015^[60]; ILO, 2015^[49]). Data gaps on adult learning information exist in regards to participation rates, completion rates, certificates or qualifications issued upon completion, and social and labour market outcomes (UIL, 2016^[83]).

The dissemination of skills information needs to be tailored to the specific needs of end-users

Skills information needs to be disseminated to users with diverse needs (OECD, 2020^[30]). Skills information is used by diverse users, who have diverse needs. For example, skills information are used by individuals to make study and employment decisions, by employers to make hiring decisions or develop business strategies, by policy-makers to evaluate the effectiveness of skill policies, and by researchers to analyse the education and the labour market. Some Southeast Asian countries, including Indonesia, Philippines, and Malaysia, as well as neighbouring OECD countries have launched websites and online tools to disseminate skills information. Most Southeast Asian countries are still developing their information systems to make them easily accessible for all users.

COUNTRY SPOTLIGHT



Malaysia's Institute of Labour Market Information and Analysis

The Institute of Labour Market Information and Analysis conducts labour market information analyses and co-ordinates research on labour market issues. The Labour Market Information Data Warehouse was established to share key information such as projections of workforce supply and demand by economic sectors and improve dissemination of information to the government, industries, and other stakeholders.

Source: Prime Minister's Department (2020), Economic Planning Unit.



Philippines' PhilJobNet

The Bureau of Local Employment administers PhilJobNet (www.philjobnet.gov.ph), the central labour market information (LMI) and career and occupational information portal. LMI is disseminated through various channels, including the web portal, mobile application, and print publications. PhilJobNet is a portal for jobseekers to find career opportunities posted by partner employers, free of charge. Employers, in turn, are provided with access to the profiles of applicants and prospective employees. The portal can be used as a source of information on in-demand occupations and emerging occupations in the market.

Source: OECD/ADB (2017), *Employment and Skills Strategies in the Philippines*.

5.4. Aligning financial arrangements

5.4. Aligning financial arrangements

While financing skills is a priority across Southeast Asian countries, the absolute amount spent per individual could be raised

Southeast Asian countries spend a significant share of their public budget on the development of skills. On average, the proportion of government expenditure on education is higher in ASEAN than in OECD countries (16.1% and 12.7% respectively, see Figure 5.6, Panel A). Thailand, Malaysia, Indonesia and Singapore in particular allocate between 19.1% and 28.8% of their budget on education, a value higher than their neighbouring OECD countries. Government expenditure on education has also been increasing across the region over time, demonstrating that the commitment towards education is high. However, in terms of absolute spending amounts per student, there are still some significant differences across countries (Figure 5.6, Panel B). This reflects the fact that the populations of these countries are, on average, much younger than in OECD countries. With the exception of Singapore, which spends an average of USD 9 937 (2016) per student at the primary education level, other countries in the region have among the lowest levels of initial government spending per student, particularly

in the Philippines, Cambodia, Myanmar, Lao PDR, Viet Nam and Indonesia, where the level of spending is below USD 500 (2016) per student in primary education. As discussed in Chapter 3, the absolute amount of funding for education matters up to a certain amount, beyond which it matters more how the funding is being spent.

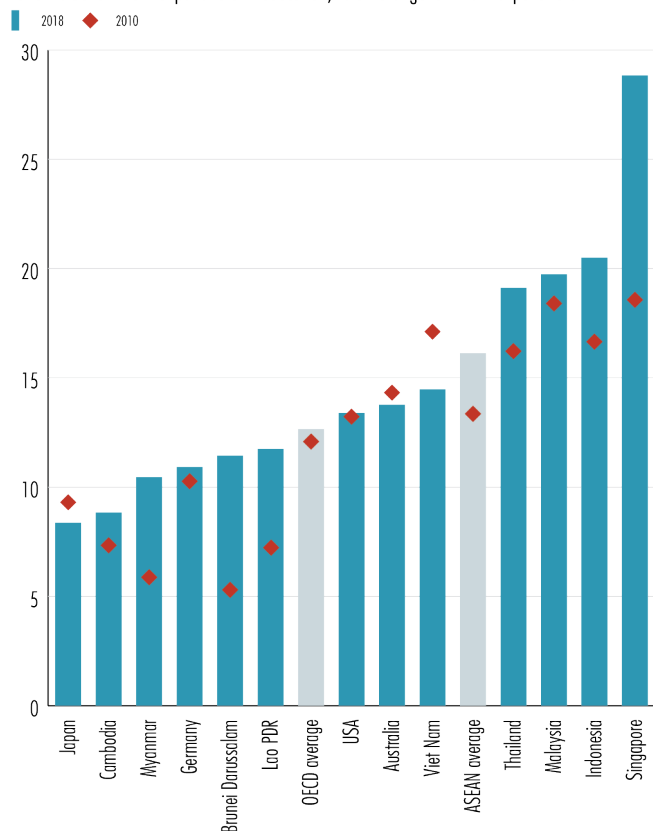
Diversifying financial resources needs to be balanced with equity concerns

It is important for Southeast Asian countries to diversify sources of financing for skills in order to increase the total amount of funding available (OECD, 2020_[30]). Some countries already rely on private contributions in the forms of tuition fees or private tutoring to complement public education, especially at higher levels of education (UIS, 2020_[16]). For countries for which there is information available example, a significant amount of household funding was spent on primary, secondary, tertiary and other education related expenses. This was the case in Cambodia, Indonesia and Viet Nam, where the household funding of education as a percentage of GDP was higher than for Japan and Australia (Figure 5.7).

FIGURE 5.6

Southeast Asian governments' commitment toward education is high, but funding per student still remains significantly behind OECD peers

Panel A. Government expenditure in education, % of total government expenditure



Panel B. Initial government funding per primary student, constant US\$

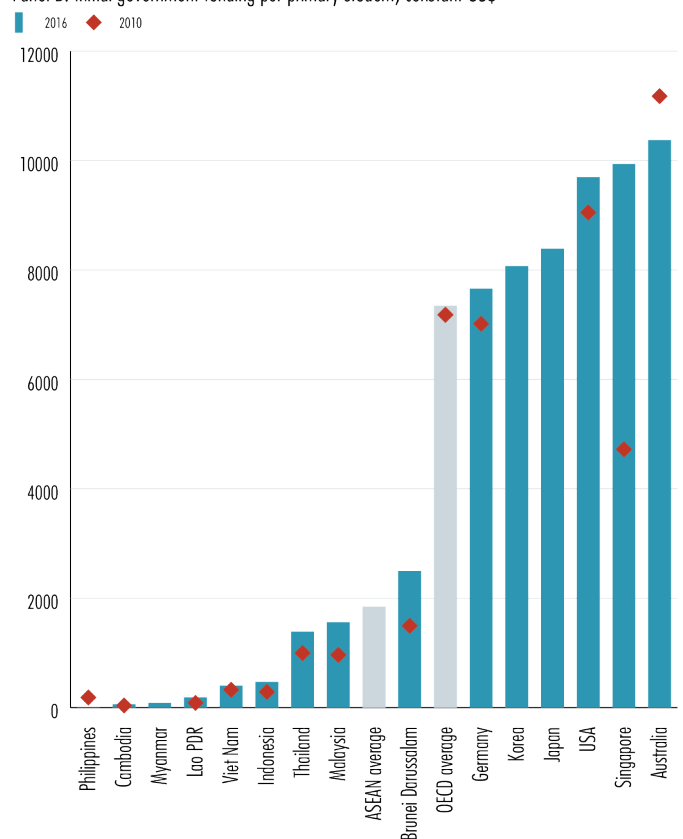
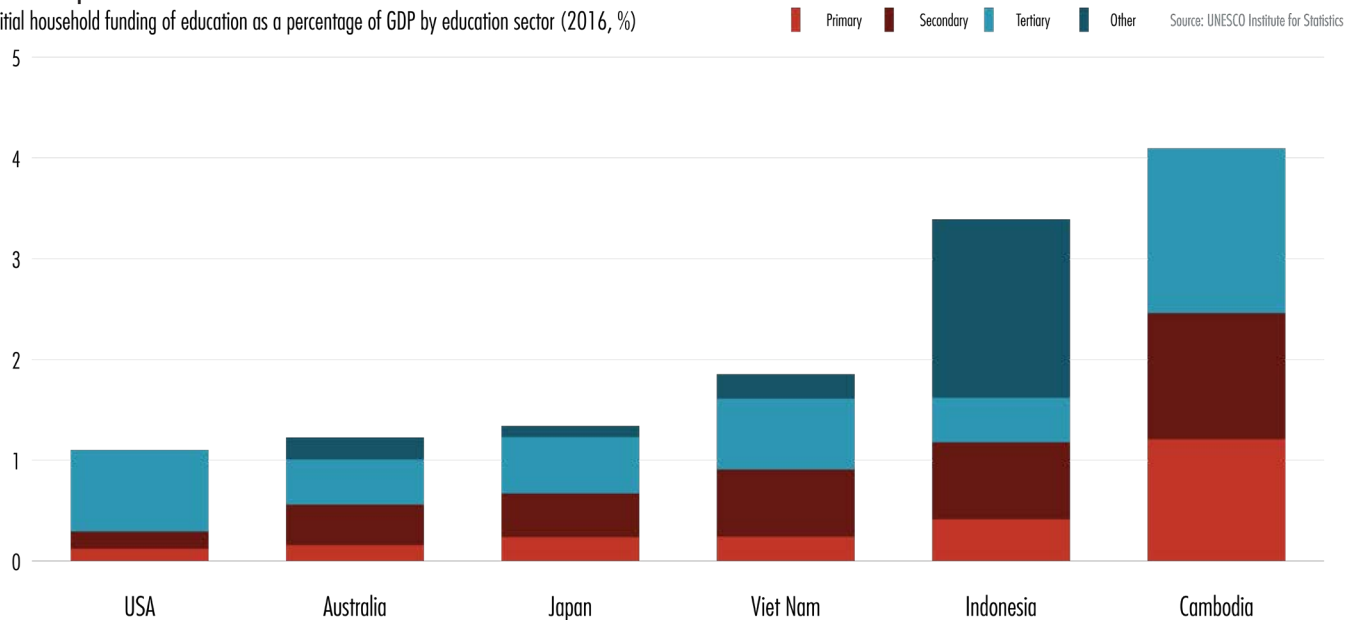


FIGURE 5.7

Private expenditure in education in Southeast Asian countries

Initial household funding of education as a percentage of GDP by education sector (2016, %)



Reliance on private expenditure to finance education needs to be balanced though with ensuring access and progression for all learners, regardless of their ability to financially contribute (ILO, 2015_[49]). The sharing of expenses between public and private actors could support learning institutions to provide quality education, adding important resources to the education system. At the same time, if not properly balanced with targeted support from the governments, the additional high private expenses for education might hamper access and progression to higher levels of education for students from disadvantaged groups. A significant share of students in ASEAN countries use private tutors (ADB, 2012_[111]). For example, a poll in Singapore found that seven in ten families interviewed had their children enrolled in extra-curriculum classes and tutoring, starting from pre-schools levels (Teng, 2015_[18]). Similar systems exist also in Cambodia and Myanmar (ILO, 2015_[49]; Silova, 2012_[27]).

Financial contributions from employers could be raised (OECD/ILO, 2017_[57]). Most Southeast Asian countries have specific bodies to engage employers, but more could be done to also raise financial resources from employers to finance training. The Enterprise Training Support scheme in Singapore and the Human Resource Development Fund in Malaysia have co-financing arrangements between the government and firms to finance the training of workers across different sectors. Such co-financing arrangements with employers mobilise additional financial resources and engage employers to ensure the labour market relevance of

skills development programmes (OECD, 2019_[5]). In the context of COVID-19 and increased budgetary pressures, it will be even more important to co-ordinate funding arrangements across public and private actors in order to ensure that the limited available funding is spent as effectively as possible and contributes as much as possible towards the recovery and eventually growth of the economy.

COUNTRY SPOTLIGHT

Malaysia's Human Resource Development Fund



The Human Resource Development Fund requires firms contribute to the fund through a 1% levy on their total payroll. Firms with fewer than 10 Malaysian employees are exempted to pay the levy, while firms with between five and nine Malaysian employees can contribute on a voluntary base at a rate of 0.5% of their total payroll. Firms can apply for training grants to defray all or a major portion of the training cost of their employees, joint training provision between multiple firms, recognition of prior learning, and the purchase of training equipment.

Source: HRDF (2017); Nurturing Workforce Potential - Annual Report 2017; World Bank (2017), Study on the Effectiveness of the Human Resources Development Fund.

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Annex

TABLE 1

Overview of skills relevant strategies

Country	Name	Description
ASEAN		
Brunei Darussalam	21st Century New Education System (SPN21)	The SPN21 initiative sets out the foundation policy for learning and assessment in schools to meet 21st century demands and needs. This includes critical skills in mathematics, science, languages and ICT; entrepreneurial skills and lifelong learning; and holistic education such as the fostering of sociocultural sensitivities. Although administered by the Ministry of Education, officers from the Civil Service Commission, Ministry of Religious Affairs and Ministry of Culture, Youth and Sports were consulted in the planning and implementation process.
Cambodia	Industry Development Plan 2015-2025	The Industry Development Plan 2015-2025 envisages a transformation of Cambodia's industrial structure from a labour-intensive industry to a skill-based industry by 2025. It focuses on promoting market-driven technological innovation by supporting knowledge based industries, building the capacity of higher education institutions to absorb scientific knowledge, and strengthening the competitiveness of domestic industries. Implemented by the Council for Development of Cambodia (CDC), various stakeholders including the Committee for Economic and Financial Policy, the Cambodia Investment Board (CIB) and the Public-Private Sector Forum are engaged in the process.
Indonesia	Long-term National Development Plan 2005-2025	The aim of the 2005-2025 Long-term Development Plan is to realise an Indonesia that is self-reliant, advanced, and just. To achieve the high levels of competitiveness necessary for these goals, the plan prioritises the development of quality and competitive human resources with a particular focus on mastering the utilisation of science and technology. The plan is a collaborative effort of the whole-of-government, starting with the joint approval of the parliament and the president of the Republic of Indonesia that stipulated the law for the implementation of the development plan.
Lao PDR	8th National Socio-economic Development Plan	The core objective of Cambodia's 8th NSEDP is to develop out of the 'less developed' country status by 2020. One of the ways it seeks to achieve this is through the strengthening of the country's human resource capacity by improving workforce skills; increasing the number of technical experts and specialists; enhancing the technical and professional capacity of civil servants and the private sector alike. The plan also mandates an increase in co-ordination between government agencies both vertically and horizontally, as well as promoting public-private partnerships in implementing and monitoring the NSEDP.
Malaysia	11th Malaysia Plan	The Industry Development Plan 2015-2025 envisages a transformation of Cambodia's industrial structure from a labour-intensive industry to a skill-based industry by 2025. It focuses on promoting market-driven technological innovation by supporting knowledge based industries, building the capacity of higher education institutions to absorb scientific knowledge, and strengthening the competitiveness of domestic industries. Implemented by the Council for Development of Cambodia (CDC), various stakeholders including the Committee for Economic and Financial Policy, the Cambodia Investment Board (CIB) and the Public-Private Sector Forum are engaged in the process.
Myanmar	National Education Strategic Plan 2016-21	The NESP 2016-2021 provides the government, education stakeholders and citizens with a roadmap for sector-wide education reforms that aim to dramatically improve access to quality education for students at all levels. The plan identifies the need to strengthen and sustain sector-wide, sub-sector and sub-national co-ordination mechanisms to achieve this goal. Under the NESP, the MoE plans to strengthen the Education Sector Working Group which facilitates policy dialogue between relevant government ministries and their development partners.
Philippines	National Technical Education and Skills Development Plan 2018-2022	The National Technical Education and Skills Development Plan 2018-2022 is the fourth cycle of its kind by the Technical Education and Skills Development Authority (TESDA) to mobilise and encourage the full participation of national government ministries and all TVET stakeholders including industry, academia and training providers in developing Philippines' human capital resources. The plan works to strengthen various parties involved in TVET through a Two-Pronged Strategic Thrust of global competitiveness and workforce readiness, and social equity for workforce inclusion and poverty reduction.

TABLE 1

Overview of skills relevant strategies

Country	Name	Description
ASEAN		
Singapore	SkillsFuture Movement	Co-ordinated by the SkillsFuture Council, the four key areas of the SkillsFuture movement include helping individuals make well-informed choices in education and training; developing a labour market relevant, high-quality system of education and training; promoting employer recognition and career development based on skills mastery; and fostering a culture that supports lifelong learning. In line with these goals, the Ministry of Manpower works with the Ministry of Education and other economic agencies in government to develop an integrated system of education and training.
Thailand	Thailand 4.0	Thailand 4.0 is an economic model that aims to generate economic prosperity, build social security and create sustainability through a focus on technology-driven innovation. At the core of its strategy is the development and empowerment of human capital, guided by the National Education Plan 2017-2036. Being a whole-of-government model, all ministries are involved in the implementation of Thailand 4.0 including but not limited to the Ministry of Commerce, the Ministry of Labour, the Ministry of Industry, the Ministry of Education and the Ministry of Culture.
Viet Nam	G20 Training Strategy	The G20 Training Strategy aims to improve the labour market relevance of national education and training outcomes and to enhance the capacity of those engaged in providing TVET. In Viet Nam, the Directorate for Vocational Education and Training (DVET) has engaged high level staff of the Ministry of Labour, War Veterans and Social Affairs (MOLISA), the Ministry of Culture, Sports and Tourism, the Ministry of Agriculture and Rural Development, as well as representatives from workers, employers and TVET institutions in a G20TS pilot project in the country's tourism and hospitality sector.

Source: Brunei Darussalam^[65], Malaysia^[73], Thailand^[68], Cambodia^[75], Philippines^[64], Lao PDR^[70], Viet Nam^[71], Myanmar^[69], Indonesia^[79], Singapore^[74]

TABLE 2

Overview of stakeholder engagement bodies

Country	Name	Description
ASEAN		
Brunei Darussalam	Industry Steering Committee	The Institute of Brunei Technical Education (IBTE) has established an 'Industry Steering Committee' that encompasses seven clusters: energy and engineering; business and financial services; hospitality and tourism; building construction, agro technology, Information Communications Technology, and maritime.
Cambodia	National Training Board (NTB)	NTB is responsible for preparing Policy and National Training Plans for TVET, coordinating and guiding the work of TVET to meet the demand driven needs of the National Economy in the present and future, and developing and coordinating Provincial Training Boards (PTB). Members of the NTB and PTB are appointed partly from private firms, employers and private training providers in order to ensure that strategic planning in TVET is responsive to the needs of relevant stakeholders.
Indonesia	Training Advisory Board (TAB)	The TAB was set up as a forum to discuss skills development with stakeholders and to provide related advice to the Government of Aceh on TVET policies. The board was developed with the support of the ILO with its Education and Skills Training for Youth Employment project and the Ministry of Manpower & and Transmigration. In particular, the TAB drafted plans for joint job fairs; it established cooperation agreements with 42 firms for on-the-job training; and strengthened the 3-in-1 kiosk facility with a database of all cooperating companies.
Lao PDR	National Council for TVET and Skills Development (NCTS)	NCTS is a private-public coordinating body that provides strategic advice on TVET issues. The NCTS was established to strengthen collaboration in TVET governance between relevant ministries – the Ministry of Education and Sports (MoES) and the Ministry of Labour and Social Welfare (MoLSW), and relevant stakeholders. The Council is chaired by the Minister of MoES, while the vice chairs are the vice minister of the MoLSW and the president of Lao PDR National Chamber of Commerce and Industry.

TABLE 2

Overview of stakeholder engagement bodies

Country	Name	Description
ASEAN		
Malaysia	Industry Skills Committee (ISC)	The establishment of ISC was planned with the 11th Malaysia Plan for 2016-2020, with the objective to identify relevant competencies for each industrial sector and sub-sector, with the collaboration and engagement of industry stakeholders. ISC will serve as a platform for coordinated engagement of industry players, so as to gather information on the requirements of industry. The Committee will be jointly chaired by the Ministry of International Trade and Industry (MITI) and a reputable industry captain. To support the ISC, Industry Working Groups will be established to identify specific human capital requirements, beginning with 11 economic sectors.
Myanmar	TVET Council	The Ministry of Education (MoE) is planning to establish a TVET Council, with the objective to strengthen TVET schools and improve international cooperation to support them. The Council will be chaired by MoE and its members will be a mix of skilled professionals, including entrepreneurs, technical experts and Cabinet members.
Philippines	Industry Boards/Associations of the Technical Education and Skills Development Authority	The Technical Education and Skills Development Authority (TESDA) is the government agency tasked with managing and supervising technical education and skills development (TESD) in the Philippines. TESDA is legislatively obliged to establish effective and efficient institutional arrangements with industry stakeholders through industry boards/associations to facilitate the participation of employers and workers in skills development.
Singapore	Future Economy Council	The Council drives the growth and transformation of Singapore's economy for the future. Chaired by Deputy Prime Minister & Minister for Finance, the Council comprises members from government, industry, unions, and educational and training institutions. The Council oversees the implementation of the recommendations put forth by the Committee on the Future Economy, and oversees SkillsFuture initiatives and Industry Transformation Maps.
Thailand	Office of Vocational Education Commission (OVEC)	The OVEC has built relationships with relevant agencies such as the Committee of Thai Industries and the Ministry of Commerce (MOC), for TVET interventions or guidance. OVEC has been actively engaging industrial sectors in a wide range of TVET activities, including curriculum design, skills training and upgrading, and the establishment of skills standards. Firms in a particular industrial sector, and concentrated in certain geographical areas, could form industry clusters and therefore benefit from being served by tailored courses.
Viet Nam	Association of Vocational Education and Social Work (AVESW)	The AVESW members are vocational institutions, firms that provide training themselves, individuals (scientists, formal officials, and other interested parties), and government officials. The association's objective is to enable members to share experiences and lessons learned, contribute to the policy-making process, raise the voice of training providers to the government, and advocate and disseminate policies for the TVET system. The Association undertakes research and conducts surveys and has also contributed to curriculum development and developed training materials based on ILO documents (e.g. occupational health and safety).

Source: Brunei Darussalam^[82], Malaysia^[73], Thailand^[80], Cambodia^[85], Philippines^[64], Lao PDR^[44], Viet Nam^[80], Myanmar^[63], Indonesia^[81], Singapore^[74]

TABLE 3

Overview of institutions that gather and disseminate skills-related information

Country	Name	Description
ASEAN		
Brunei Darussalam	Brunei Darussalam Technical and Vocational Education Council	The Brunei Darussalam Technical and Vocational Education Council provides information on skills and acts as the national awarding body for technical and vocational qualifications in Brunei. To measure the success of TVET in Brunei Darussalam, the following three Key Performance Indicators are used: 1) Employability Rate; 2) Employers' Satisfaction Rate; and 3) Students' Completion Rate.
Cambodia	National Employment Agency (NEA)	The NEA provides "Employment Services and Labour Market Information" to job seekers, employees, employers, education and training providers, policy makers and planners, and the public in Cambodia. The NEA is also the designated statistical unit responsible for developing a labour market information system in order to collect, analyse and disseminate labour market information.
Indonesia	Ministry of Manpower and Transmigration	The Ministry of Manpower and Transmigration collects administrative data on job seekers and job vacancies through both public and private employment services. This provides information on matches or mismatches between the education and skills attainment of job seekers, and the expectations of employers for qualifications - information which is shared with education and training institutions to better align labour supply and labour demand. The ministry also collects information on sectoral and occupational growth, as well as outcomes by demographic groups such as gender or age, which can provide signals for policy interventions.
Lao PDR	Ministry of Labour and Social Welfare	The Ministry of Labour and Social Welfare (MOLSW) is responsible for analysing data on skills demand in the economy, in cooperation with the Ministry of Education and Sports and other ministries. A Labour market information system is being established within the statistics division of the Cabinet of the MOLSW, with support from the Department of Statistics and Ministry of Planning and Investment.
Malaysia	Institute of Labour Market Information and Analysis	The Institute of Labour Market Information and Analysis conducts labour market information analyses and coordinates research on labour market issues. The Labour Market Information Data Warehouse was established to share key information such as projections of workforce supply and demand by economic sectors and improve dissemination of information to the government, industries, and other stakeholders.
Myanmar	Ministry of Education	The Ministry of Education has established a new education sector management information system, including: (i) the design, deployment and use of a Human Resource Information System (ii) strengthening the Education Management Information System through linkages with school mapping data. The MOE will build upon these achievements and establish a single, comprehensive, integrated and decentralised information system called the Education Portal, which will provide stakeholders at all levels of the education system with comprehensive, accurate and up-to-date data.
Philippines	Bureau of Local Employment	The Bureau of Local Employment maintains a labour market information (LMI) system. It co-ordinates the collection, processing, storage, retrieval, and release of labour market information from a variety of databases generated by local units and attached agencies from the Department of Labour and Employment.
Singapore	Future Economy Council	The Future Economy Council has overall responsibility for the Skills Framework and provides key information on sectors and employment, career pathways, occupations/job roles, as well as existing and emerging skills required for the identified occupations/job roles. It also provides a list of training programmes for skills upgrading and mastery.
Thailand	Office of the National Economic and Social Development Board	The Office of the National Economic and Social Development Board provides information service to assist the youth in their search for employment. Moreover, the government has sought to provide additional services that guide the youth in making effective use of the available labour market information, and to guide them in making appropriate career choices.
Viet Nam	General Statistics Office	The General Statistics Office (GSO) collects labour-market information, conducts a quarterly labour force survey, and collaborates with employment service centres to undertake additional surveys.

Notes on Dashboard

Characteristics

This dashboard is based on the original OECD Skills Strategy dashboard. It presents a simple, intuitive overview of the outcomes of skills systems that is easy to interpret and which provides a quick impression of a country's performance across the pillars of the OECD Skills Strategy ("developing relevant skills", "putting skills to effective use" and "strengthening the governance of the skills system"). A total of 31 key outcome indicators were selected and grouped into 21 aggregated indicators (see the list in Table 4). All ASEAN countries have been included. Two OECD countries in the Asia (Japan and Korea) and three OECD countries outside of Asia (Australia, Germany and the United States) have been included for benchmarking purposes. However, given that some countries have no data for specific indicators, there are some gaps across the dashboard.

Selection of indicators

The selection of indicators followed a process whereby a long-list of the used indicators in the OECD Skills Strategy dashboard and the specific indicators adopted for the SEA report was gradually reduced to a short-list of core indicators. This process built on the principle that the indicators describe the core outcomes of the different pillars of the skills system. In addition, these indicators express outcomes in terms of level, trend, distribution and equity. They are comparatively easy to interpret and mostly based on OECD, ILO, World Bank and UNESCO sources, using the most recent data available. Four additional sources are employed for specific indicators, mostly related to the second and third pillars of the OECD Skills Strategy ("putting skills to effective use" and "governance of the skills system"). These sources are: the Bertelsmann Transformation Index 2020, the World Justice Project, the Global competitiveness report, the Global Innovation Index.

Method for calculation of aggregate indicators

To develop aggregate indicators that represent the relative position of countries on key outcomes of the skills system, a number of calculations were made on the collected data. To describe the relative position across countries, a score for each indicator was calculated ranging from zero to ten, with zero for the weakest performance and ten for the strongest performance in the list. This resulted in an indicator that allows for comparisons between different types of indicators (e.g. averaging performance of literacy scores and educational attainment rates). The resulting scores were normalised in such a way that better performance results in a higher score. Subsequently, an unweighted average of the indicators was calculated for each of the aggregates, and these scores were then ranked. The final ranking was separated into five groups of equal size, ranging from "Top 20% performer" to "Bottom 20% performer".

TABLE 4

OECD Skills Strategy Dashboard: Pillars, aggregates and underlying indicators

Pillar and aggregates	Indicator	Source
Developing relevant skills		
How accessible is initial education?	Pre-primary gross enrolment rate, 2017 Primary gross enrolment rate, 2017 Secondary gross enrolment rate, 2017	UNESCO, UIS Database UNESCO, UIS Database UNESCO, UIS Database
Are primary students remaining in education without dropping out?	Drop-out rates in primary education, 2017	UNESCO, UIS Database
How skilled are youth?	Reading (PISA), mean score, 2018 Mathematics (PISA), mean score, 2018 Science (PISA), mean score, 2018	OECD (2019), PISA 2018 OECD (2019), PISA 2018 OECD (2019), PISA 2018
Are skills of youth being developed inclusively?	Percentage of variance in reading performance explained by economic, social and cultural status (ESCS), 2018	OECD (2019), PISA 2018
Do students have access to guidance to make informed study and career decisions?	Percentage of students in advantaged schools that provide career guidance, 2019 Percentage of students in disadvantaged schools that provide career guidance, 2019	OECD (2019), PISA 2018 OECD (2019), PISA 2018
How accessible is tertiary education?	Tertiary gross enrolment rate, 2017	UNESCO, UIS Database
How well aligned are the skills with labour market needs?	Under-qualification and over-qualification, 2012, 2015 or latest available date	OECD computation based on Survey of Adult Skills (PIAAC) (2012, 2015), Thailand LFS, Australian Survey of Education and Work, Skills for Jobs
Is there a strong culture of adult education?	Percentage of firms offering formal training (%)	World Bank (2017) Enterprise Survey
Putting skills to effective use		
How fully are individuals participating in the labour market?	Employment-to-population ratio, working age (15+), ILO modelled estimates 2019 Youth not in employment, education or training (NEET), % of 15-24 year-olds, 2019	ILO (2019), ILOSTAT ILO (2019), ILOSTAT
Is the participation of individuals in the labour market improving?	Employment-to-population ratio, 15+ years old (5y p.p. change), ILO modelled estimates, 2019 Youth not in education, employment or training (NEET), 15-24 years old (5y p.p. change 2019-2015)	ILO (2019), ILOSTAT ILO (2019), ILOSTAT
How inclusive is the labour market?	Gender (m-f), employment rate difference, ILO modelled estimates, 2019 Employment rate of immigrants (%), 2019	ILO (2019), ILOSTAT ILO (2019), ILOSTAT
How prevalent is informal employment?	Informal employment as a share of employment (%), 2018	ILO (2019), ILOSTAT
Are individuals participating in society?	Share of people who volunteered time to an organisation in the past month (%), 2017	OECD (2019), Society at a Glance Asia Pacific 2019

TABLE 4

OECD Skills Strategy Dashboard: Pillars, aggregates and underlying indicators

Pillar and aggregates	Indicator	Source
Putting skills to effective use		
How fully are information-processing skills used?	Information-processing skills used at work, 2012, 2015	OECD (2012,2015), Survey of Adult Skills (PIAAC)
How much are digital skills being used?	Individuals using the Internet, total population (%), 2017	World Bank Database
Is management well-equipped to adopt practices that foster skills use in workplaces?	Reliance on professional management. "In your country, who holds senior management positions in companies?", Global Competitiveness Index 2017-2018	World Economic Forum (2018), The Global Competitiveness Report 2017-2018
Is skills use stimulated by innovation?	Global Innovation Index, 2019	Cornell University, INSEAD and WIPO (2019), Global Innovation Index 2019
Strengthening the governance of skills systems		
How much policy co-ordination in government is present?	Policy co-ordination. To what extent can the government coordinate conflicting objectives into a coherent policy?	Bertelsmann Stiftung (2020), Bertelsmann Transformation Index 2020
How much are stakeholders engaged?	Civil society traditions. To what extent are there traditions of civil society? Civil society participation. To what extent does the political leadership enable the participation of civil society in the political process?	Bertelsmann Stiftung (2020), Bertelsmann Transformation Index 2020 Bertelsmann Stiftung (2020), Bertelsmann Transformation Index 2020
How accessible is information?	Publicised laws and government data Right to information	World Just Project (2020) Rule of Law Index 2020 World Just Project (2020) Rule of Law Index 2020
Is spending efficient?	Efficiency of government spending. "In your country, how efficient is the government in spending public revenue?". Global Competitiveness Index 2017-2018.	World Economic Forum (2018), The Global Competitiveness Report

Notes on Infographics

Definitions

Gross enrolment rates refer to the total enrolment rates in education, regardless of age, expressed as a percentage of the population at the official education age. It could exceed 100% due to overaged or under-aged students.

Disadvantaged students are those in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) distribution within their country. ESCS combines students' responses on their parents' occupations and educational attainment, and their reports on the cultural possessions and educational resources available in the students' home.

Resilient students are disadvantaged students who score in the top quarter of performance in reading amongst students in their own country.

Non-resilient students are disadvantaged students who do not score in the top quarter of performance in reading.

Informal employment comprises persons who in their main or secondary jobs were (a) own-account workers, employers and members of producers' cooperatives employed in their own informal sector enterprises; (b) own-account workers engaged in the production of goods exclusively for own final use by their household (e.g. subsistence farming); (c) contributing family workers, regardless of whether they work in formal or informal sector enterprises; or (d) employees holding informal jobs, whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households.

Notes on Figures

Figure 2.1

Myanmar data from 2000.

Figure 2.2

The bars represent occupation-based estimates for the risk of automation, based on Frey and Osborne (2017).

Figure 2.3

The old-age dependency ratio is defined as the number of people aged 65 and over per 100 people of working-age (20-64).

Figure 2.4

All country data from 2018.

Figure 2.5

Impacts of Global Warming (3°C) on the World GDP (% Change/Year)

Figure 2.6

Brunei Darussalam, Cambodia, Indonesia, Korea, Thailand, Myanmar, Malaysia, Lao PDR, Viet Nam data from 2018; Philippines, Germany, Australia, USA, Singapore, Japan data from 2019.

Figure 3.1

Panel A. Myanmar data from 1999; Brunei Darussalam data from 1991; USA data from 2005; Germany data from 1993.

Panel B. USA data from 2005; Germany data from 1991; Brunei Darussalam data from 1991.

Panel C. Cambodia data from 1991, 2008; Brunei Darussalam data from 1991; Germany data from 1991; USA data from 2005; Australia data from 1993.

Panel D. Myanmar data from 2018; Viet Nam data from 2016; Brunei Darussalam data from 1992; Thailand data from 2016; Germany data from 1991; USA data from 2005.

Panel E. Myanmar data from 2016; Indonesia data from 2015; Thailand data from 2016; Malaysia data from 2015; Cambodia data from 2016; Viet Nam data from 2015; Philippines data from 2015.

Figure 3.2

All country data from 2018.

Figure 3.3

All country data from 2018.

Figure 3.4

All country data from 2018.

Figure 3.5

All country data from 2018.

Figure 3.6

Thailand data from 2016; Viet Nam data from 2015; Myanmar data from 2016; Philippines data from 2015; Indonesia data from 2015; Lao PDR data from 2018; Malaysia from 2015; Cambodia data from 2016.

Figure 3.8

Cambodia data from 2015; Japan data from 2017; Korea data from 2017; Lao PDR data from 2018; USA data from 2017; Indonesia data from 2018; Germany data from 2017; Thailand data from 2016; Australia data from 2017; Philippines data from 2017; Viet Nam data from 2015; Malaysia data from 2018; Myanmar data from 2018; Brunei Darussalam data from 2018.

Figure 3.9

All country data from 2018.

Figure 4.1

All country data from 2019, with the exception of Singapore and Malaysia data from 2017.

Figure 4.2

All country data from 2019, with the exception of Singapore, Malaysia data from 2017 and Lao PDR, Cambodia data from 2018.

Figure 4.3

All country data from 2019, with the exception of Japan, Singapore, Malaysia data from 2018 and Cambodia, Australia, Lao PDR data from 2017. OECD country average does not include Korea due to unavailable data.

Figure 4.4

Australia data from 2019; Korea, Indonesia, Malaysia data from 2017; Japan, Myanmar data from 2015; Brunei Darussalam, Philippines data from 2014; Cambodia data from 2013. OECD average does not include Canada, Colombia, Czech Republic, Israel, Mexico, New Zealand and Turkey.

Figure 4.5

Cambodia data from 2012; Lao PDR data from 2017; Brunei Darussalam, Indonesia, Myanmar, Thailand data from 2018; Viet Nam data from 2019.

Figure 4.6

All country data from 2019.

Figure 4.7

All country data from OECD PIAAC 2012, 2015. For reading, writing, numeracy and ICT skills, skills use indicators are scales between 1 “Never” and 5 “Every

day”. Problem-solving skills use refers to respondents’ answers to “How often are you usually confronted with more complex problems that take at least 30 minutes to find a good solution?”. The set of possible answers also ranges between 1 “Never” and 5 “Every day”.

Figure 4.8

All country data from OECD PIAAC 2012, 2015. kill use indicators show how often skills are used, scaled from 1 “Never” to 5 “Every day”. The share of jobs with high HPWP is based on various average of HPWP measures included in PIAAC.

Figure 4.9

The score is based on who holds the senior management position, ranging from 1 (“usually relatives or friends without regard to merit”) to 7 (“mostly professional managers chosen for merit and qualifications”), 2011-12 weighted average.

Figure 4.10

All country data from OECD PIAAC 2012, 2015.

Figure 4.11

All country data from 2019.

Figure 4.12

Cambodia, Philippines data from 2015; Malaysia data from 2016; Myanmar, Viet Nam, Thailand, Australia, Singapore data from 2017; Indonesia, Brunei Darussalam, OECD average, USA, Germany, Japan, Korea data from 2018.

Figure 5.1

All country data from 2020. The Transformation Index ranks 137 countries based on in-depth assessments on governance indicators. Each question is graded on a scale of 0 to 10. The figure shows the answers to the question: to what extent can the government coordinate conflicting objectives into a coherent policy?

Figure 5.2

All country data from 2020. The Governance Index ranks 137 countries based on in-depth assessments on governance indicators. Each question is graded on a scale of 0 to 10. The Governance Index ranks 137 countries based on in-depth assessments on governance indicators. Each question is graded on a scale of 0 to 10.

Extent of stakeholder engagement traditions: to what extent are there traditions of civil society?

Level of stakeholder engagement: to what extent does the political leadership enable the participation of civil society in the political process?

Figure 5.4

Thailand, Malaysia data from 2016; Philippines data from 2014; Indonesia, Cambodia data from 2012; Viet Nam data from 2011; Lao PDR data from 2010.

Figure 5.5

Scores range from 0 to 1, with 1 indicating a stronger performance in a particular indicator.

Right to information: Measures whether requests for information held by a government agency are granted, whether these requests are granted within a reasonable time period, if the information provided is pertinent and complete, and if requests for information are granted at a reasonable cost and without having to pay a bribe. It also measures whether people are aware of their right to information, and whether relevant records are accessible to the public upon request.

Publicised laws and government data: Measures whether basic laws and information on legal rights

are publicly available, presented in plain language, and made accessible in all languages. It also measures the quality and accessibility of information published by the government in print or online, and whether administrative regulations, drafts of legislation, and high court decisions are made accessible to the public in a timely manner.

Figure 5.6

Panel A. Japan, Brunei Darussalam, OECD average, Australia data from 2016; Indonesia data from 2014; Lao PDR data from 2012; Thailand data from 2011.

Panel B. Myanmar, Singapore data from 2017; Indonesia data from 2015; Lao PDR, Cambodia data from 2014; Viet Nam, Thailand data from 2013.

Figure 5.7

Australia, Indonesia data from 2015; Cambodia, Viet Nam data from 2013.

Towards a Skills Strategy for Southeast Asia

Skills for Post-COVID Recovery and Growth

Skills are central to the capacity of countries and people to thrive in a rapidly changing world. Recovering from the COVID-19 pandemic will require countries to coordinate interventions to help recent graduates find jobs, reactivate the skills of displaced workers and use skills effectively in workplaces. Megatrends such as globalisation, climate change, technological progress and demographic change will continue to reshape work and society. Countries should take action now to develop and use more effectively the skills required for the world of the future and at the same time make their skills systems more resilient and adaptable in the context of change and uncertainty.

The OECD Skills Strategy provides countries with a strategic approach to assess their skills challenges and opportunities. The foundation of this approach is the OECD Skills Strategy framework allowing countries to explore how they can improve i) developing relevant skills, ii) using skills effectively, and iii) strengthening the governance of the skills system.

This report applies the OECD Skills Strategy framework to Southeast Asia, providing an overview of the region's skills challenges and opportunities in the context of COVID-19 and megatrends, and identifying good practices for improving skills outcomes. This report lays the foundation for a more fully elaborated Skills Strategy for Southeast Asia.

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