Book

The KOF education system factbook: Viet Nam

ETH zürich

KOF Swiss Economic Institute

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List of Abbreviations

ADB	Asian Development Bank
AQRF	Association of Southeast Asian Nations Qualification Reference Framework
ASEAN	Association of Southeast Asian Nations
CVC	Curriculum Value Chain
DACUM	Developing a Curriculum
ECCE	Early Childhood Care and Education
EPL	Employment Protection Legislation
FDI	Foreign Direct Investments
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GDVT	General Directorate of Vocational Training
GER	Gross Enrolment Ratio
GPI	Gender Parity Index
GII	Global Innovation Index
HEI	Higher Education Institution
ICT	Information and Communications Technology
ILO	International Labour Organization
ISCED	International Standard Classification of Education
KOF	Swiss Economic Institute
MOET	Ministry of Education and Training
MOIT	Ministry of Industry and Trade, Ministry of Health
MOLISA	Ministry of Labour, Invalids and Social Affairs
NER	Net Enrolment Ratio
NIVET	National Institute for Vocational Education and Training
NGO	Non-governmental organization
NQF	National Qualification Framework
NVQF	National Vocational Qualification Framework
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PET	Professional Education and Training

TVET	Technical Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
VND	Vietnamese Dong (currency)
VPET	Vocational Professional Education and Training
VPETA	Vocational and Professional Education and Training Act
VTC	Vocational Training Centre
VVTAA	Viet Nam Vocational Training Accreditation Agency
WEF	World Economic Forum
WES	World Education Services
WGI	Worldwide Governance Indicator
WTO	World Trade Organization
YLMI	Youth Labour Market Index

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FOREWORD

The increasing competitiveness of the world economy as well as the high youth unemployment rates after the worldwide economic crises have put pressure on countries to upgrade the skills of their workforces. Consequently, vocational education and training (VET) has received growing attention in recent years, especially amongst policy-makers. For example, the European Commission defined common objectives and an action plan for the development of VET systems in European countries in the *Bruges Communiqué on Enhanced European Cooperation in Vocational Education and Training for 2011-2020* (European Commission, 2010). In addition, a growing number of US states and other industrialized, transition, and developing countries (for example Hong Kong, Singapore, Chile, Costa Rica, Benin and Nepal) are interested in either implementing VET systems or making their VET system more labour-market oriented.

The appealing outcome of the VET system is that it improves the transition of young people into the labour market by simultaneously providing work experience, remuneration and formal education degrees at the secondary education level. If the VET system is optimally designed, VET providers are in constant dialogue with the demand-side of the labour market, i.e. the companies. This close relationship guarantees that the learned skills are in demand on the labour market. Besides practical skills, VET systems also foster soft-skills such as emotional intelligence, reliability, accuracy, precision, and responsibility, which are important attributes for success in the labour market. Depending on the design and permeability of the education system, VET may also provide access to tertiary level education (according to the ISCED classification): either general education at the tertiary A level or professional education and training (PET) at the tertiary B level. PET provides occupation-specific qualifications that prepare students for highly technical and managerial positions. VET and PET systems are often collectively referred to as “vocational and professional education training (VPET)” systems.

Few countries have elaborate and efficient VPET systems. Among these is the Swiss VPET system, which is an example of an education system that successfully matches market supply and demand. The Swiss VPET system efficiently introduces adolescents to the labour market, as shown by Switzerland’s 2007-2017 average youth unemployment rate of 8.1 percent compared to 14.8 percent for the OECD average (OECD, 2017a).

Though not many countries have VPET systems that are comparable to Switzerland’s in terms of quality, efficiency and permeability, many have education pathways that involve some kind of practical or school-based vocational education. The purpose of the KOF Education System

Factbook Series is to provide information about the education systems of countries across the world, with a special focus on vocational and professional education and training.

In the KOF Education System Factbook: Viet Nam, we describe Viet Nam's vocational system and discuss the characteristics that are crucial to the functioning of the system. Essential components comprise the regulatory framework and the governance of the VPET system, the involved actors, and their competencies and duties. The Factbook also provides information regarding the financing of the system and describes the process of curriculum development and the involved actors.

The Factbook is structured as follows: First, we provide an overview of Viet Nam's economy, labour market, and political system. The second part is dedicated to the description of the formal education system. The third section explains Viet Nam's vocational education system. The last section offers a perspective on Viet Nam's recent education reforms and challenges to be faced in the future.

EDITING AND ACKNOWLEDGEMENTS

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The KOF Education System Factbooks should be regarded as work in progress. The authors do not claim completeness of the information which has been collected carefully and in all conscience. Any suggestions for improvement are highly welcome!

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1. The Vietnamese Economy and its Political System

One of the main purposes of an education system is to provide the future workforce with the skills needed in the labour market. The particularities of a country's economy and labour market are important factors determining the current and future demand for skills. Therefore, these will briefly be described in the first part of this Factbook. In addition, this part provides an overview of Viet Nam's political system with emphasis on the description of the education politics.

1.1 The Vietnamese Economy

Under the political and economic "Doi Moi" reforms initiated in 1986, Viet Nam has grown from one of the world's poorest nations to a lower middle-income country with remarkable achievements in reducing poverty for their almost 100 million inhabitants (World Bank, 2018a). Viet Nam has shifted from a centrally planned, agrarian economy to a market-oriented economy and more than doubled GDP per capita[1] since 2000. In 2018, Viet Nam's GDP per capita was relatively low at US$ 2,564 (US$ 6,610 in 2018, adjusted for PPP) when compared to the average of East Asia & Pacific[2] countries at US$ 7,821 (US$ 14,301 in 2018, adjusted for PPP) or OECD members at US$ 40,360 (US$ 40,490 in 2018, adjusted for PPP) (World Bank, 2018b).

Despite having achieved strong growth for many years, the impact on income distribution was relatively modest for Viet Nam (World Bank, 2014a) exhibiting a Gini coefficient of 0.356 compared to China which has seen a more pronounced influence of growth on income inequality with a Gini coefficient of 0.422 (World Bank, 2018c). Compared to the 2014 OECD average of 0.318, economic growth in Viet Nam appears relatively inclusive. However, concerns over inequality do exist and relate to economic gaps based on differences in geography and ethnicity (World Bank, 2014a).

From 1990 to 2017, Viet Nam has seen growth in real GDP at 6.8 percent per annum clearly outperforming OECD members at 2.06 percent. However, growth during the same period was higher in the East Asia & Pacific region at 8.2 percent (World Bank, 2018d). Lately, real GDP growth picked up from 6.2 percent in 2016 to 6.8 percent in 2017 attributable to a substantial surge in exports and investment as well as solid private consumption. The two main demand-side contributors to growth since 2013 have been investments and private consumption

[1] Constant 2011 international US$, at purchasing power parity (PPP).
[2] East Asia & Pacific excluding high income: American Samoa, Cambodia, China, Fiji, Indonesia, Kiribati, South Korea, Lao PDR, Malaysia, Marshall Islands, Micronesia (Fed. Sts.), Mongolia, Myanmar, Nauru, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, Viet Nam.

whereas government consumption has played an insignificant role. Net exports have been negative and thus reduced growth rates since 2014, but with a continuous decrease in magnitude (ADB, 2018, p. 286).

Table 1: Value added and employment by sector, 2016

Sector	Viet Nam: Value added (%)	EU-28: Value added[3] (%)	Viet Nam: Employment (%)	EU-28: Employment (%)
Primary sector	18.1	1.5	41.9	4.5
Secondary sector	36.4	24.8	24.8	21.6
Tertiary sector	45.5	73.7	33.4	73.8

Source: Own table based on Eurostat (2018a; 2018b) and World Bank (2018e; 2018f).

Over the past 30 years, Viet Nam has seen significant shifts in employment from the primary sector towards secondary and tertiary sector. Still, as can be seen from Table 1, more than 40 percent of Viet Nam's labour force work in the primary sector, which only provides 18 percent of value added. In developed countries (EU-28), the primary sector only plays a minor role with 4.5 percent employment and 1.5 percent of added value respectively. The Vietnamese employment share of the secondary and tertiary sector have grown steadily from 12 percent in 2000 to 25 percent in 2016 (22% to 33% respectively), highlighting the transition towards more productive sectors (World Bank, 2018e). Driven by low wages and a steady influx of foreign direct investments (FDI) the secondary sector has become a key pillar of Viet Nam's economy with a share of 36.4 percent value added. From 2012 to 2016, manufacturing accounted for 70 percent of newly registered FDI and comprised manufacturing goods such as phones, electronics, textiles and footwear (Deloitte, 2018). Figure 1 illustrates these trends.

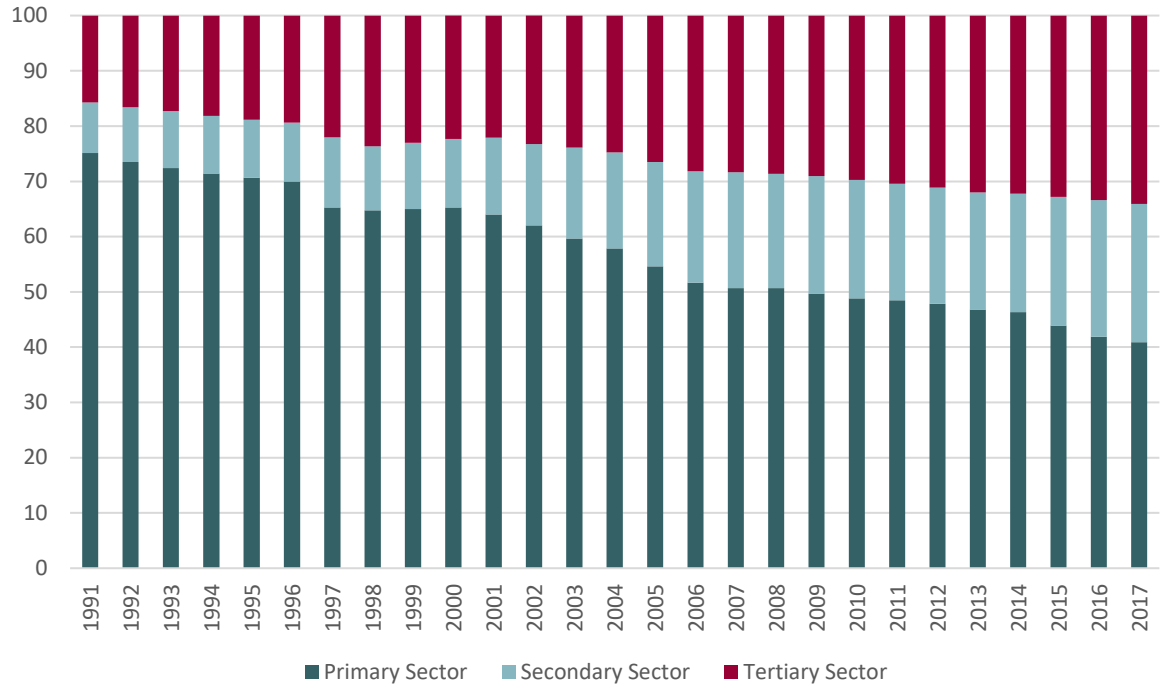
According to the KOF Index of Globalisation[4], Viet Nam ranks 95th out of 207 countries in 2015 (Dreher, 2006). Once a laggard in terms of globalisation, economic and political transformation, Viet Nam since 1986 has steadily opened up its economy to the world as evidenced by the significant increase of the overall index compared to the rest of the world (Gygli, Haelg, & Sturm, 2018).

The internationalization of Viet Nam's economy manifests itself in the high number of bilateral and multilateral free trade agreements. Having signed 16 free trade deals Viet Nam shares the top spot in East Asia with Singapore. Furthermore, Viet Nam is a member of the Association of South East Asian Nations (ASEAN) and actively participates in shaping ASEAN into a single market through their membership in the ASEAN Economic Community. Beyond its

[3] Due to rounding differences, the sum of all sector falls below 100 percent.
[4] The KOF Index of Globalization measures globalization in three dimensions: economically, socially and politically. In addition to three indices measuring these dimensions the overall index of globalization and sub-indices are calculated with regards to: actual economic flows, economic restrictions, data on information flows, data on personal contact and data on cultural proximity.

neighbourhood, Viet Nam has signed trade agreements with the European Union, the United States, Japan and South Korea. Access to foreign consumer markets enables Viet Nam to strengthen its position as a low-wage, export-oriented manufacturer (Deloitte, 2018).

Figure 1: Employment by sector (as % of total employment), 1991-2017



Source: Own illustration based on the World Bank (2018e).

In the WEF Global Competitiveness Report 2018, Viet Nam moved up five places to rank 55 compared to 2017. A major driver for Viet Nam is the large market size outperforming other countries in the East Asia and Pacific region. However, the largest performance gaps relate to basic requirement factors such as institutions, infrastructure and the macroeconomic environment. Furthermore, the most problematic factors for doing business in Viet Nam encompass access to financing and an inadequately educated workforce. In a World Bank survey, employers reported difficulties in filling positions that require higher skills and found that 70-80 percent of managerial and technical applicants were unqualified (WEF, 2018).

Concerning innovativeness, Viet Nam ranks 47th out of 124 countries according to the Global Innovation Index 2018 (Dutta et al., 2018). When segmenting by income group, Viet Nam is one place behind Ukraine, the top innovation leader of the lower middle-income category. On one hand, Viet Nam achieves good ratings in areas such as high-tech net imports/exports, FDI net inflows and gross domestic expenditures on research and development financed by businesses. On the other hand, Viet Nam underperforms in areas such as QS university rankings, intensity of local competition and imports/exports of ICT services (Dutta et al., 2018).

1.2 The Labour Market

In the first part of this section, we will describe the general situation of Viet Nam's labour market. In the second part, we will refer to the youth labour market in particular.

1.2.1 Overview of the Vietnamese Labour Market

In the context of the "Doi Moi" reforms, labour market regulations have evolved to accommodate sectoral shifts in employment. Self-employed farmers from the agrarian sector have moved towards jobs in the secondary and tertiary sector with registered and regulated businesses. According to a report by the World Bank, the labour market transition was managed successfully in Viet Nam. Despite regional disparities, "unemployment has been low, wage growth pronounced and – at least among private sector workers – wage inequality has been declining" (World Bank, 2016). Furthermore, in comparison to other East Asian Pacific countries Vietnamese companies were far less likely to perceive labour market regulation as a constraint on their business (World Bank, 2014b).

Viet Nam's labour market has become stricter due to an overhaul of the Labour Code and Trade Union law in 2012 making hiring and dismissal more regulated in Viet Nam. These changes are reflected in the OECD Index of Employment Protection, which is a multidimensional index that quantifies the strictness of Employment Protection legislation (EPL) across countries. It is scaled between zero to six, where zero refers to a low level of EPL, and six to a high level of protection. While Viet Nam's EPL score was relatively moderate before the changes in 2012, it is nowadays included in the group of countries with the most restrictive EPL. Potential negative effects encompass generally lower employment and particularly affect young workers, women, new entrants to the labour market and unskilled workers. Furthermore, high labour mobility barriers by restrictive EPL may be the reason why a large portion of Viet Nam's labour force still chooses to remain outside the regulated labour market – only 20.48 percent of employees were contracted wageworkers in 2013 – rendering EPL ineffective (World Bank, 2016).

The first minimum wage in Viet Nam was introduced in 1992 and exclusively applicable to foreign-owned firms. The WTO accession of Viet Nam led to a partial alignment process so that minimum wages differ across four regions today. A separate rate applies to employees from the general government sector highlighting disparities between private and public workers (ibid.).

Table 2: Labour force participation rate, unemployment rate by age, 2017

	Labour force participation rate (%)		Unemployment rate (%)	
Age Group	Viet Nam	OECD average	Viet Nam	OECD average
Total (15-64 years)	83.2	72.1	2.1	5.9
Youth (15-24 years)	59.4	47.3	7	11.9
Adults (25-54 years)	93.3	82.1	1.2[5]	5.3
Adults (55-64 years)	73.2	63.0		4.2

Source: Own table based on OECD (2018a) and ILO (2018a).

As illustrated in Table 2, Viet Nam exhibits a high labour force participation rate, which is generally above the OECD average in all four age groups displayed. Viet Nam's labour force participation rate has seen a slight decline in recent years. A possible explanation for this is the increase in schooling years causing a delay of young people joining the labour force. Viet Nam's labour force participation shows disparities in terms of gender and geography. Participation rates for men are higher than for women and people living in urban areas are less likely to participate in the labour force. Furthermore, a surge in the participation rate for older age groups in recent years suggests that the population is influenced by population ageing trends (ILO, 2018b).

Viet Nam's unemployment figures have been relatively low and stable with a slight increase since 2012 (ILO, 2018b). Also, in comparison with OECD averages (2018a) Viet Nam scores well. The driving force for a higher rate in Viet Nam is a steady growth of unemployment in rural areas. However, unemployment in Viet Nam's urban areas is still generally higher than in rural parts of the country (ibid.).

While higher educational attainment comes with a higher labour force participation in Viet Nam, the opposite is true for the unemployment rate. People with a tertiary education are more likely to be unemployed than workers from lower education levels as illustrated in Table 3. In contrast to this, the OECD average for unemployment decreases with increasing levels of education. Reasons for this inverse relationship in Viet Nam may be the high reservation wages by graduates, structural mismatches between labour supply and the demand or the relatively low quality of education (ITCILO, 2014).

[5] Data only available for 25+.

Table 3: Labour force participation rate, unemployment rate by educational attainment 2017 (persons aged 25-64)

	Labour force participation (%)		Unemployment rate (%)	
Education Level	Viet Nam	OECD average	Viet Nam	OECD average
Less than upper secondary education	75.1	64.3	1.2	10.7
Upper secondary level education	75.7	80.5	2.8	6.2
Tertiary education	87.7	88.6	4.0	4.1

Source: Own table based on OECD (2018b) and ILO (2018a).

1.2.2 The Youth Labour Market

The KOF Swiss Economic Institute developed the KOF Youth Labour Market Index (KOF YLMI) to compare how adolescents participate in the labour market across countries (Renold et al., 2014). The foundation for this index is the critique that a single indicator, such as the unemployment rate, does not suffice to describe the youth labour market adequately nor provide enough information for a comprehensive cross-country analysis. To increase the

amount of information analysed and to foster a multi-dimensional approach, the KOF YLMI consists of twelve labour market indicators[6] that are grouped into four categories.

The first category describes the *activity state* of youth (ages 15-24 years old) in the labour market. Adolescents are classified according to whether they are employed, in education, or neither (unemployed, discouraged and neither in employment nor in education or training; see info box to the right). The category *working conditions* and the corresponding indicators reflect the type and quality of jobs the working youth have. The *education* category accounts for the share of adolescents in education and training and for the relevance of their skills on the labour market. The fourth category, *transition smoothness*, connects the other three categories by capturing the school-to-work transition phase of the youth. Each country obtains a score of 1 to 7 for each particular indicator of the KOF YLMI. A higher score reflects a more favourable situation regarding the youth labour market and a more efficient integration of the youth into the labour market.

Dimensions of the KOF YLMI
Activity state - Unemployment rate - Relaxed unemployment rate[7] - Neither in employment nor in education or training rate (NEET rate)
Working conditions Rate of adolescents: - with a temporary contract - in involuntary part-time work - in jobs with atypical working hours - in work at risk of poverty[8] - vulnerable unemployment rate[9]
Education - Rate of adolescents in formal education and training - Skills mismatch rate
Transition smoothness - Relative unemployment ratio[10] - Long-term unemployment rate[11]
Source: Renold et al. (2014).

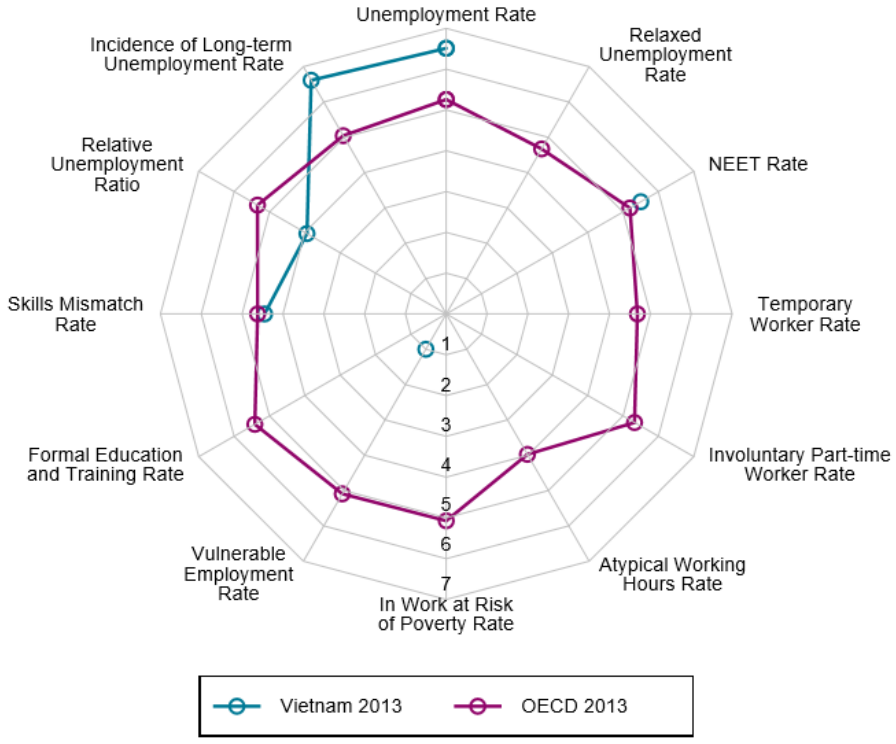
One of the major drawbacks of the KOF YLMI is data availability. When data is lacking, a category can occasionally be based on a single indicator or must be omitted entirely when not a single indicator for that category exists in a given country. A lack of indicators can make comparisons across certain countries or groups of countries problematic and sometimes even impossible.

[6] The data for these indicators are collected from different international institutions and cover up to 178 countries for the time period between 1991 and 2015.
[7] It is calculated as the number of unemployed and discouraged workers as a share of the entire labour force. Discouraged workers have given up the search for work (not actively seeking), although they have nor job and are currently available for work (also: “involuntary inactive”).
[8] Those who cannot make a decent living out their earnings, being at risk of poverty as a percentage of the working population.
[9] Share of the employed population working on their own account or those working in their family business and thus contributing to the entire family income. Both are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.
[10] Is defined as the youth unemployment rate (15-24 years) as a share of the adult unemployment rate (25+). If the youth cohort is affected in the same way than the adult group with respect to unemployment, then the relative unemployment ratio will be equal to one. If the youth are relatively more affected, then the ratio will be bigger than one.
[11] Those unemployed for more than one year (52 weeks) in the total number of unemployed (according to the ILO definition).

1.2.3 The KOF Youth Labour Market Index (KOF YLMI) for Viet Nam

Even though data for Viet Nam in the KOF YLMI is limited, indicators such as unemployment rate, skills mismatch rate, or NEET rate are available for comparison to the OECD average (see Figure 2). The comparison generally yields a mixed picture. On the one hand, unemployment, NEET, and incidence of long-term unemployment rate are slightly more favourable in Viet Nam. On the other hand, relative unemployment ratio and vulnerable employment rate are below OECD averages. In particular, the latter indicator exhibits a significant difference to the OECD average. Skills mismatch rate is approximately at the same level as in OECD countries.

Figure 2: YLM Scoreboard: Viet Nam versus OECD average, 2013



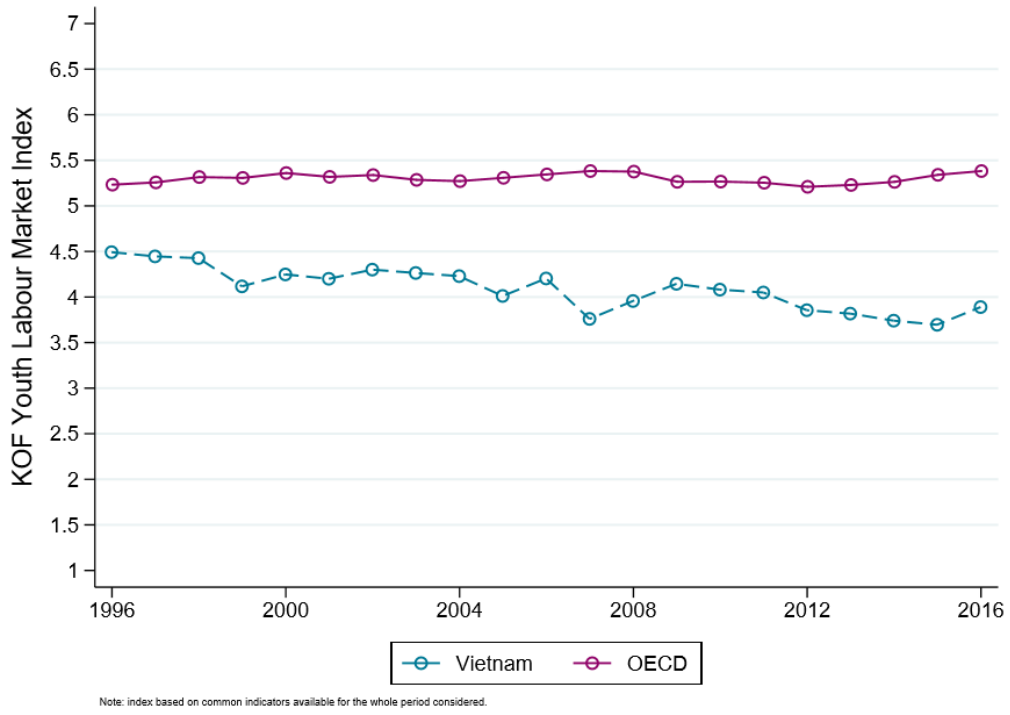
Source: Own illustration based on the KOF YLMI database (2018).

As elaborated in Chapter 1.2.1, the Vietnamese labour market has been stable with relatively low youth unemployment thanks to rapid growth of the economy giving a possible explanation for the outperformance compared to OECD countries of the three indicators unemployment, incidence of long-term unemployment, and NEET rate. However, other aspects of the Vietnamese labour market are less favourable. As such, the ratio of youth to adult unemployment is higher than in OECD countries. While 7 percent of Vietnamese youth (aged 15-24) were unemployed in 2017, only 1.2 percent of the adults (aged 25-64) were. The resulting youth to adult unemployment ratio of 5.83 was higher than that of the OECD with

2.51. Furthermore, the least favourable indicator for Viet Nam's youth labour market is the vulnerable employment rate: Viet Nam still exhibits a high share of informal workers such as self-employed farmers or unregistered business owners. However, as the labour market is under continuous transformation, this is likely to improve going forward (World Bank, 2016).

In Figure 3, the development of the YLM-index is depicted from 1996 to 2016 for Viet Nam and OECD countries. The overall index for Viet Nam has slightly declined over this period whereas OECD countries could marginally improve their rating. As data availability for Viet Nam is restricted to six indicators, the development should be taken with a grain of salt.

Figure 3: YLM-Index: Viet Nam vs OECD, 1996-2016



Source: Own illustration based on the KOF YLMI database (2018).

1.3 The Political System

Understanding the basics of a country's political system and getting to know the political goals with respect to its education system are crucial points for the understanding of the education system in a broader sense. In the first part, we explain Viet Nam's political system in general. The politics and goals regarding the education system will be referred to in the second part.

1.3.1 Overview of the Vietnamese Political System

The nation-state of Viet Nam is organized as a unitary socialist one-party republic based on a constitutional framework first put in place in 1980. Since then, the constitution has seen major amendments encompassing shifts in foreign and economic policy that supported the country's transition. The organisation of the nation-state is divided into the legislative, executive and judicial branch (Britannica, 2018).

A unicameral, popularly elected National Assembly represents the legislative branch and acts as the supreme body of government. It is responsible for the election of the president, who serves as the head of state, and of the vice-president. The executive branch (cabinet) is composed of the Prime Minister, the deputy Prime Minister and the heads of all government ministries as well as of several state organisations. The prime minister is nominated by the president and approved by the National Assembly. On a local level, the government is divided administratively into more than 64 provinces that are supervised by the cabinet. The lowest level of government is the communal level where over 10,000 entities exist. The judicial branch consists of courts, tribunals and the two highest institutions: The Supreme People's Procuracy and the Supreme People's Court. As the highest court of appeal and court of first instance for special cases, the Supreme People's Court is under supervision of the National Assembly and supervises local courts covering all levels of government except the communes (ibid.).

According to the World Bank's Worldwide Governance Indicators (WGI), Viet Nam in 2017 performs relatively well for indicators such as "Political Stability", "Government Effectiveness" and "Rule of Law" when compared to other lower middle-income countries. However, the same report also states that Viet Nam exhibits significant deficiencies for indicators such as "Voice and Accountability" or "Control of Corruption". The indicator "Regulatory Quality" is on par with other lower middle-income countries. However, since 2007, Viet Nam has progressed on all indicators suggesting improvements of their governance (World Bank, 2018g). According to the Economist Intelligence Unit's Democracy Index 2017, Viet Nam is classified as an authoritarian regime ranking 140th out of 167 countries. However, Viet Nam was able to improve its position since 2007 (Economist, 2017). In terms of corruption, the Corruption Perception Index ranks Viet Nam 119th out of 174 countries with no improvement of its score since 2012 (Transparency International, 2018).

1.3.2 Politics and Goals of the Education System

In Viet Nam, the Ministry of Education and Training (MOET) is the governmental agency in charge of general/academic education as well as higher education. The Ministry of Labour, Invalids and Social Affairs (MOLISA) is responsible for vocational education. While in 1993 the main guiding principle for Viet Nam in terms of education was to “improve people’s general knowledge, training human resources and foster talent”, the country has since altered its goals to highlight the importance of high quality human resources for a sustainable social and economic development driving its industrialization and modernization (UNESCO, 2011). Many challenges related to these goals remain such as “limited school choice, low enrolment at the upper secondary level, inadequate training for the labour market, and a strong need for strategic planning for systemic reforms” (World Bank, 2017). These challenges will be elaborated in Chapter 3.

2. Formal System of Education

The Vietnamese education system is divided into five levels: Pre-school, primary school, lower secondary, upper-secondary and higher education. Pre-school education is non-compulsory and available to children from an age of three months to five years. Primary school officially starts at the age of six and encompasses five grades until the age of eleven. Once primary school is completed, students either continue their education in a four-year programme at a lower secondary school or attend a vocational training centre to attain a vocational certificate (WES, 2017).

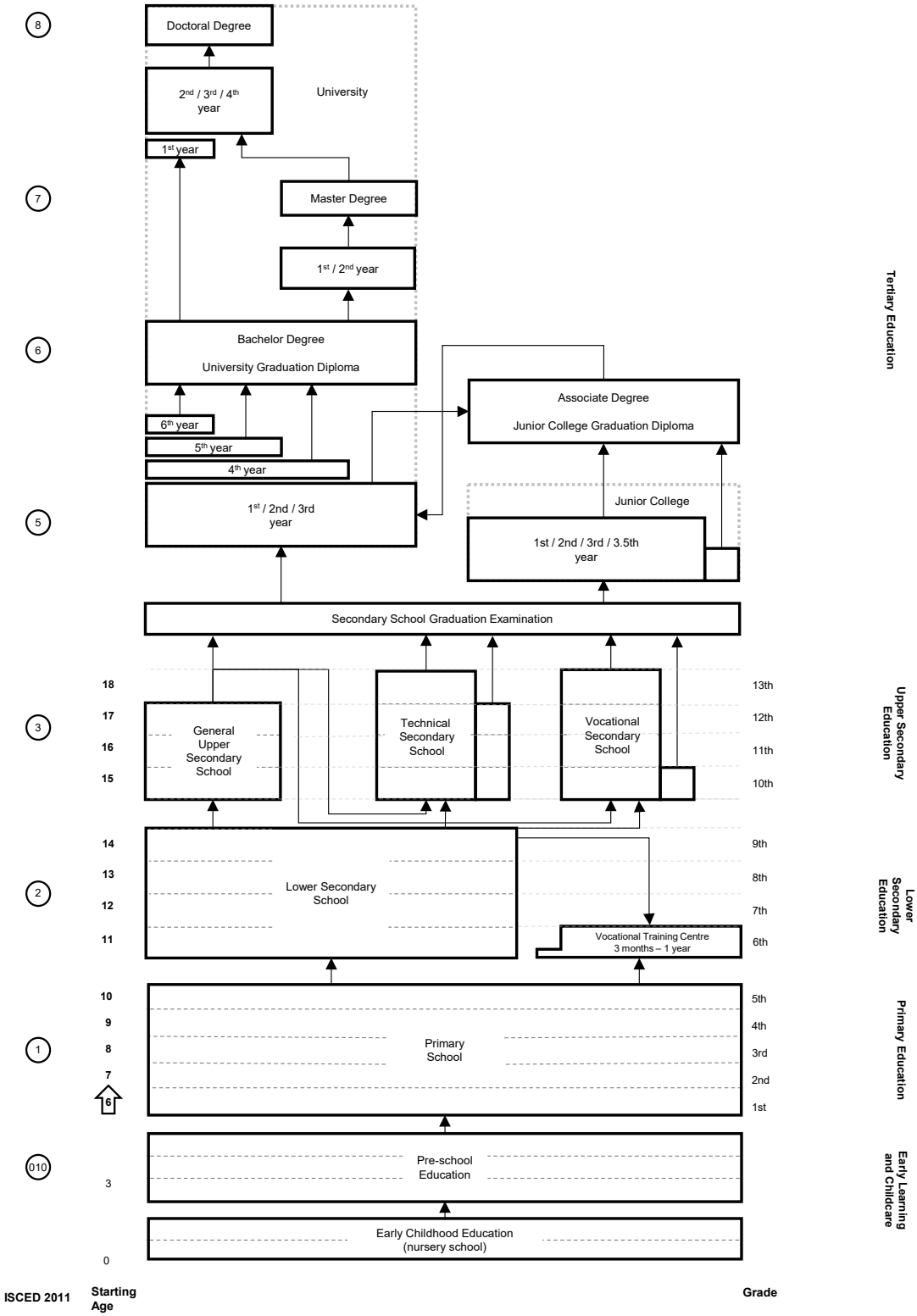
An illustration of the Vietnamese education system with its various education pathways is provided in Figure 4 below.

Up to 2005, compulsory education only comprised the completion of primary school. Despite a corresponding change in the Vietnamese education law of 2005, an extension of compulsory education to grade nine (lower secondary education) has not been achieved yet. Recent reforms are set to correct this gap across Viet Nam implementing compulsory education until grade nine (ibid.).

Subsequent to lower secondary education, students may enrol for general upper secondary school. Access however, is subject to a rigorous examination test and thus limited. General upper secondary school lasts three years from grade ten to twelve (age from 15 to 18). Alternatively, students may attend vocational/technical high school programmes that combine general education with vocational training. Higher education via a university encompasses the three academic levels of bachelor, master and doctoral degree whereas a junior college offers a more practice-oriented degree (ibid.).

Funding for public education in Viet Nam is based on both government subsidies and other payment sources. These other payment sources refer to informal payments from parents. The composition of formal and informal payments depend on norms by province- and district-level authorities and even vary across schools. Overall, Viet Nam has increased education spending significantly in recent years from 3.6 percent (education expenditures as a percentage of GDP) in 2000 up to 5.7 percent in 2013. In fact, education makes up a large portion of Viet Nam's governmental budget standing at 20 percent of total government expenditures in 2015. This is substantially above the global average of 14.1 percent (World Bank, 2017).

Figure 4: The Vietnamese education system



Source: Own illustration based on WES (2017), ADB (2014), EVBN (2018) and (2017).

Despite the high financial commitment of the Vietnamese government, education is not entirely free of charge and getting more costly. Primary schools often charge a number of supplementary fees including maintenance levies or fees for schoolbooks and uniforms. Furthermore, public secondary schools are allowed to charge a small tuition fee and parents often, as part of boosting their children's academic career, pay teachers for supplemental private lessons. Overall, this leads to education being more and more unaffordable and creates inequality among different income classes. Going forward, endeavours to privatize parts of the education system could further exacerbate the current situation. In higher education, annual tuition fees averaged between US$ 262 and US$ 385 for 2015/2016. Caps on tuition fees were exempted for certain public schools. Renowned universities such as Ho Chi Minh City University of Technology charge US$ 1000 in annual fees for bachelor programmes (WES, 2017).

Enrolment

Table 4 shows the gross enrolment ratio (GER)[12] by education level for the year 2018 (and 2016) (UNESCO, 2018a). The GER quantifies the number of students enrolled at a given education level – irrespective of their age – as a percentage of the official school-age population corresponding to the same level of education. The net enrolment ratio (NER)[13] quantifies the total number of students in the theoretical age group for a given education level enrolled at that level expressed as a percentage of the total population in that age group. For example, for the primary education level, the NER tells how many students in the typical primary school age are actually enrolled in primary school, while the GER sets the actual number of students in primary education – irrespective of their age – in relation to those who are in the official age to attend primary education[14]. For Viet Nam, only limited data for the GER is available. Table 4 will be discussed in chapters 2.1 to 2.4 below.

[12] The UNESCO Institute for Statistics (UIS) (2017) defines the gross enrolment ratio as the "number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education."
[13] The UIS (2017) defines the net enrolment ratio as the "Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group."
[14] A gross enrollment ratio of 100 corresponds to a situation where each child in a given country is enrolled in the corresponding education level. A value above 100 could occur due to students who are older than the typical enrolment age for primary education (e.g. have to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age for primary education is actually enrolled.

Table 4: Gross enrolment ratio (GER), 2018 (or 2016)

Educational level	ISCED 2011	Gross Enrolment Ratio (%)
Early Childhood Care and Education	010	57.3[15]
Pre-primary education	020	100.2[15]
Primary education	1	110.6[15]
Secondary education	2 – 3	n/a
Lower secondary education	2	101.1[15]
Upper secondary education	3	n/a
Tertiary education	5 – 8	28.5[16]

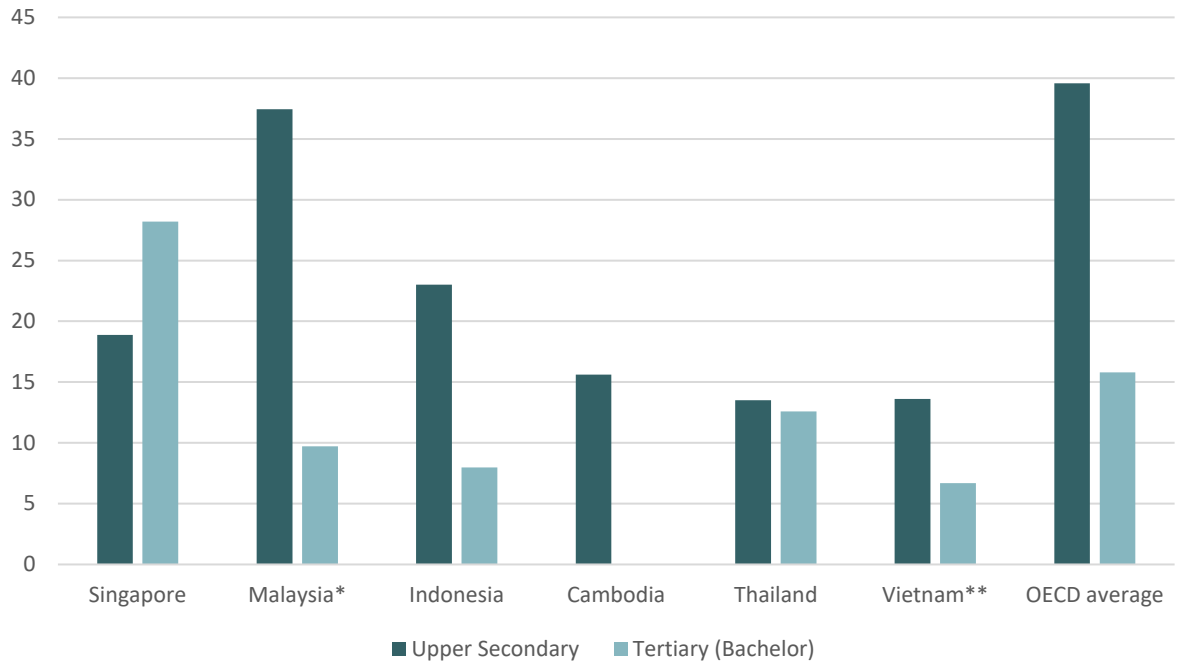
Source: Own table based on UNESCO (2018a).

Attainment

Figure 5 shows on one hand the share of people older than 25 who have attained upper secondary (ISCED 3) and on the other hand the share of people older than 25 who have reached a bachelor degree (ISCED 6) for selected South East Asian countries as well as the OECD average for 2015. Values for Viet Nam are only available for year 2009. Even though Viet Nam's population exhibits significantly lower educational attainment for upper secondary (13.6%) and tertiary education (6.7%) compared to OECD countries, the gap to other South East Asian countries appears less pronounced. However, in terms of educational attainment for tertiary education, Viet Nam exhibits a relatively low value (UNESCO, 2018a).

[15] Data for the year 2018 (UNESCO, 2018a).
[16] Data for the year 2016 (UNESCO, 2018a).

Figure 5: Share of population (%) by educational attainment, population 25 years and older (2015, * 2016, ** 2009)



Source: Own illustration based on UNESCO (2018a).

Gender Parity

Table 5 shows indices for gender parity by level of education. The Gender Parity Index (GPI) is determined by dividing the number of enrolled females by the number of enrolled males. The numbers reveal that Viet Nam shows almost universal parity across all educational levels. Deviation from averages from Southeast Asian and Pacific (APAC) nations is only marginal. An outlier is the tertiary level, where it is reported that in 2016, relatively more females were enrolled (UNESCO, 2018a).

Table 5: Gender Parity Index (GPI), 2018 (or 2016) for Viet Nam and APAC average

Educational level	ISCED 2011	Gender Parity Index	GPI APAC Average
Early Childhood Care and Education	010	0.95	1.13
Pre-primary education	020	0.99	0.97
Primary education	1	1.02	0.98
Secondary education	2 – 3	n/a	1.00
Lower secondary education	2	1.03	1.01
Upper secondary education	3	n/a	1.03
Tertiary education	5 – 8	1.24[17]	1.23

Source: Own table based on UNESCO (2018a).

2.1 Early and Pre-Primary Education

While Early Childhood Care and Education (ECCE) refers to education for infants from zero to three years, pre-primary education covers children between three and six years – both are non-compulsory. In Viet Nam, parents may take their infants to nurseries/crèches for **ECCE** or to kindergartens for **pre-primary** education. In addition, pre-primary schools perform a dual function as nursery/crèches and kindergarten, which is why they provide both ECCE and pre-primary education for children from age zero to six. All three institutions are under central supervision of the MOET (ADB, 2016). As shown in Table 4, the GER for pre-primary education in Viet Nam in 2018 was relatively high at 100.2 percent (UNESCO, 2018a), which may be explained by the "Vietnamese people's emphasis on education and schools" (ADB, 2016, p. 25) achieving a relatively high enrolment ratio when compared to countries with a similar economic background.

Per a report by the UNESCO (2006), the curriculum of ECCE in Viet Nam generally aims at helping the children develop physically, emotionally, intellectually and aesthetically. In contrast, kindergarten will prepare children for their primary school years by administering a watered down form of formal education. Children are thereby introduced to certain topics through a variety of sensory stimuli (reading, discussion, music and arts). Both ECCE and kindergarten are funded by the state budget but still charge tuition and other fees. For crèches, fees amount to VND 200,000 (US$ 8.6) per month, while a child attending a Vietnamese kindergarten will run a family about VND 160,000 (US$ 6.9) a month (Tour Vietnam, 2018).[18] There are also private providers of early childhood education, which cater to the more affluent families by charging considerably larger fees. Lastly, remote areas will rely on communal funding for the

[17] Data for the year 2016 (UNESCO, 2018a).
[18] Fees are given in Vietnamese Dong (VND) and in US-Dollar (US$) at a 2017 exchange rate of US$ 1 = VND 22,710.37 for the school year 2016-17 (Exchange Rates, 2017).

operation of their local crèches (UNESCO, 2006). Fees will however vary considerably depending on the institution's location (EVBN, 2018).

A report for the school year 2016-17 reveals that in the whole of Viet Nam, there are about 13 nurseries and 2,200 crèches in operation. These catered to around 500,000 children aged from 3 months up to 3 years of age. 3.8M pre-primary school aged children (3 to 6 years) are attending one of the 10,400 kindergartens in the country (StateUniversity, 2019a; EVBN, 2018).

2.2 Primary Education

Primary education (*tiểu học*) in Viet Nam encompasses five years of education officially starting at the age of six (until ten) and is divided into five different grades. Attendance is and has been compulsory since 1975. To foster attendance, public primary level education is *officially* free of charge. However, schools will usually have students and families pay considerable fees for supplementary services and encourage them to make voluntary contributions (StateUniversity, 2019a). Students at primary school receive education in Vietnamese, mathematics, moral education, natural and social sciences, arts, and physical education. Furthermore, subjects such as history and geography are covered in the fourth and fifth grade. After the announcement of MOET in 2017, the curriculum will be adapted to include courses in a foreign language as well as computer training from grade three on. In addition, minority languages will be offered. The language of instruction is Vietnamese. At this stage of education, the focus of the syllabus lies on rote memorization (WES, 2017).

In alignment with the economic liberalisation in 1986, Viet Nam has condoned the emergence of various non-governmental institutions. Semi-public, private and community schools now complete the primary level offering. Numbers from 2017 reveal that there were around 15,000 public primary schools altogether attended by 7.7M students. Numbers are however reported to be declining due to the growing importance and reputation of private primary schools (StateUniversity, 2019a; EVBN, 2018).

Students transition from one grade to the other via continuous assessment and year-end tests. A final examination at the end of grade five used to be a requirement to pass primary education officially. However, this practice was scrapped in 2000 (WES, 2017). Up to the year 1997, only 50 percent of students annually were reported to have completed all five years of primary education; leading to high rates of grade repetition. Yet still, every year, three quarters of fifth grade students were reported to transition into lower secondary education (StateUniversity, 2019a).

2.3 Lower Secondary Education

Students that have successfully passed grade five of primary education are able to continue their educational pathway at a lower secondary school (*trung học cơ sở*) or enrol in a short-term or elementary vocational training programme (*ngắn hạn*) (cf. 3.1.1). The lower secondary school programme lasts four years from grade six to grade nine (usually ages 11 to 14). In contrast to both pre-primary and primary schooling, secondary institutions will officially charge tuition and fees. At public schools, students are charged up to VND 100,000 (US$ 4.3) per month. Private schools, will come at much higher costs in the realm of VND 1M (US$ 43) to 48M (US$ 2,066) per month for the most prestigious institutions (Tour Vietnam, 2018).[19] Fees will however vary considerably depending on the institution's location (EVBN, 2018). Students repeating a grade are thereby charged twice the usual amount (StateUniversity, 2019b). However, the government is making steps towards offering a free public secondary education starting in 2019 (Tour Vietnam, 2018). Students attend up to thirty 45-minute classes per week covering the following subjects: Vietnamese, foreign language, mathematics, natural sciences, civics, history, geography, technology, computer science, arts as well as physical education. In the context of the foreign language course offered in primary school, a second foreign language as well as minority language courses can be attended at the lower secondary school level (WES, 2017).

Students transition from one grade to the other based on teachers' continuous assessment and examinations. Analogous to primary education, final examinations as a graduation requirement were abolished in 2006 (EVBN, 2018). However, upon finishing their lower secondary education, Vietnamese students interested in continuing their education will sit a nation-wide high school entrance exam (Tour Vietnam, 2018). The completion of the lower secondary education is awarded with a Lower Secondary Education Graduation Diploma (*Bằng tốt nghiệp trung học cơ sở*). Students either continue their educational pathway in a general (academic) upper secondary school or enrol in a vocational certificate programme (*Bằng Tốt nghiệp Nghề*) (cf. 3.1.2) (WES, 2017).

Furthermore, graduates from lower secondary school may enrol in more academically oriented technical high school programmes called professional secondary or intermediate professional education bringing together vocational training with general education (ibid.).

[19] Fees are given in Vietnamese Dong (VND) and in US-Dollar (US$) at a 2017 exchange rate of US$ 1 = VND 22,710.37 for the school year 2016-17 (Exchange Rates, 2017).

In 2017, there were around 10,100 public academically oriented lower secondary schools in operation. These were attended by just over 5M students (EVBN, 2018).

2.4 Upper Secondary Education

The upper secondary education system in Viet Nam consists of the general upper secondary school and the secondary technical or vocational schools.

Access to public general upper secondary schools is subject to an admission test and thus limited and competitive. Admission to prestigious schools is particularly hard as only students with the highest performance in the nation-wide administered test may be admitted (cf. lower secondary) (Tour Vietnam, 2018). In addition, specialized general upper secondary schools with a subject focus belong to the most selective schools in Viet Nam. MOET has recently undertaken several measures to optimize entrance and graduation examinations across the country and there have generally been frequent changes to the system. For example, voluntary supplementary exams targeted to gain advantages in terms of faster admission were abolished in this context. Alternatively, in case students' scores are not high enough to be admitted to public general upper secondary school, they may attend a technical/vocational upper secondary school or enrol at expensive private high schools (WES, 2017). Attending an upper secondary school is not free. Fees and tuition will usually amount to VND 120,000 (US$ 5.2)[20] per month for public institutions; with private schools charging much more (cf. lower secondary) (Tour Vietnam, 2018). Fees will however vary considerably depending on the institution's location (EVBN, 2018).

The general education upper secondary school programme lasts three years from grade ten to grade twelve. Students attend up to thirty 45-minute classes per week. There are three different subject groups for general upper secondary schools: Technology, natural science, and social sciences & foreign languages. Before 2017, course requirements for all three streams were specified by MOET and included the following subjects: mathematics, physics, chemistry, and biology in the technology and natural science tracks; and literature, history, geography, and foreign languages in the social sciences & foreign language track. However, recent reforms announced in 2017 have the objective of increasing flexibility for students to choose elective concentration courses targeted to make up one third of the overall curriculum. At the same time, all students will share the same core curriculum encompassing subjects

[20] Fees are given in Vietnamese Dong (VND) and in US-Dollar (US$) at a 2017 exchange rate of US$ 1 = VND 22,710.37 for the school year 2016-17 (Exchange Rates, 2017).

such as Vietnamese, foreign language, mathematics, as well as physical and military education (WES, 2017).

Students transition from one grade to the other based on teachers' continuous assessment and annual examinations. A repetition year is necessary in case students fail the annual examination twice. Only by successfully passing a rigorous final test, students are awarded the Secondary Education Graduation Diploma (*Bằng Tốt Nghiệp Phổ Thông Trung Học*). Admission to tertiary education institutions is based on the score of this final test (ibid.). Depending on the students' preferred major in a future tertiary education, their final examination questions may vary (Tour Vietnam, 2018). As such, they are meant to choose between either social or natural sciences as their focus programme (EVBN, 2018).

Alternatively, vocational/technical high school programmes offer graduates from lower secondary school an educational option that combines vocational training with general education. The programmes last three to four years and typically require students to pass an admission test. After graduation, students obtain a Professional Secondary Education Graduation Diploma (*Bằng Tốt nghiệp Trung học Chuyên nghiệp*). Successful graduates have access to university education; however, the majority of students in the vocational track continue their studies at (junior) colleges (WES, 2017).

In 2017, there were around 2,100 public purely upper secondary schools in operation. Around 270 institutions offered both lower and secondary education. Around 2.3M students attended such schools in 2017 (EVBN, 2018).

2.5 Tertiary Education

The post-secondary tertiary education pathway in Viet Nam is available for graduates from upper secondary schools and includes practice-oriented higher education institutions (HEI) such as junior colleges (*Cao đẳng*) or college-level degrees offered by universities, or more academic HEIs such as mono-specialized universities (*đại học đơn ngành*), multi-disciplinary universities (*đại học đa ngành*), and postgraduate research institutes (*học viện*) (WES, 2017). Lastly, Viet Nam also recognizes several local universities (national) and foreign-invested universities (Nguyễn & Vũ, 2015). Altogether, in 2015, there were 498 HEI in Viet Nam, 93 of which were private institutions. These private institutions are operated and owned by various agents such as social organizations, professional organisations or individuals. Of those, 65 are private universities, attended by 244,000 students in 2017 (EVBN, 2018).

Practice-oriented tertiary education (administered at colleges) lasts two to three and a half years and awards an Associate degree (*Cử nhân Cao đẳng*) or a Junior College Graduation

Diploma (*Bằng Tốt Nghiệp Cao Đẳng*). The curriculum is practice-oriented and contains training units of up to 30 percent of the entire program. Subjects covered are business administration, banking, accounting, tourism, information technology, or health care. Admission is based on the upper-secondary school graduation examination (WES, 2017). The bulk of colleges (nearly two thirds), however focus on teacher-education (Nguyễn & Vũ, 2015).

At university, students can complete a Bachelor's degree (*Bằng Cử Nhân*) that typically lasts four years. The subsequent Master's degree (*Bằng Thạc sĩ*) usually takes two years, but some disciplines such as engineering have a duration of three years. The highest academic distinction awarded in the Vietnamese education system is the Doctor of Philosophy (*tiến sĩ*), which takes between two and four years (Tour Vietnam, 2018; Nguyễn & Vũ, 2015).

These institutions often place a great strain on students since admission is competitive and examinations demanding. The pressure caused by these examinations have led the Vietnamese government to make changes to the examination system. Since 2015, students take one secondary school graduation exam (*Kỳ thi trung học phổ thông quốc gia*) which on one hand is the final test for their upper secondary school graduation and on the other hand the basis for the university application. Previously, students were tested separately by an admission test in addition to upper secondary final exams. As a consequence, costs for universities and students are lower as the admission process is simplified and students do not have to rely on expensive preparation courses. Furthermore, tests can be taken locally and are not restricted to a few cities. In this context, it is worth mentioning that MOET allows public universities to decide on their own admission requirements (e.g. additional exams) beyond the official graduation exam results (WES, 2017).

There are public, private, or people-founded HEIs. Similar to private HEIs, people-founded HEIs are tuition-funded, but are operated by nongovernmental organizations. Two public Open Universities (HCMC Open University and Hanoi Open University) offer open programmes (*mộ rồng*) for students whose score is not high enough to enrol at regular universities (ibid.).

Tertiary education is not free in Viet Nam. Institutions, based on their reputation, charged their students from VND 5M (US$ 215.3) to 51M (US$ 2,196) for the 2017-18 academic year (Tour Vietnam, 2018).[21]

[21] Fees are given in Vietnamese Dong (VND) and in US-Dollar (US$) at a 2018 exchange rate of US$ 1 = VND 23,195 for the school year 2017-18 (Exchange Rates, 2018).

2.6 Enrolment and Number of Institutions

Table 6 gives an overview of the number of institutions and corresponding enrolment for the academic year 2016-17.

Table 6: Number of institutions and corresponding enrolment per level of education (2016-17)

	Number of Institutions		**Enrolment**	
Education Level	Public	Private	Public	Private
Nursery/Crèches	2,217	198,189	477,870	198,189
Kindergarten	10,397	637,964	3,771,612	637,964
Primary	14,939	68,242	7,733,318	68,242
Lower Secondary	10,124	56,695	5,178,829	56,695
Upper Secondary	2,110	186,246	2,290,929	186,246
Secondary	*266*	*n/a*	*n/a*	*n/a*
Tertiary	170	243,975	1,523,904	243,975

Source: Own table based on EVBN (2018).

2.7 Teacher Education

In Viet Nam, requirements for teaching classes vary depending on the level of education. Teachers responsible for pre-school and primary school are required to hold a professional secondary school diploma (*Bằng Tốt nghiệp Trung học Sư phạm*). This diploma can be obtained at secondary teacher training schools. While pedagogical junior colleges (*Cao đẳng Sư phạm*) award the required teaching diploma for lower-secondary schools, teachers for upper-secondary must obtain a bachelor's degree in education from a pedagogical university (*trường đại học Sư phạm*). Furthermore, by earning an additional one-semester teacher training certificate (*Chứng Chỉ Sư Phạm*), bachelor degree graduates in other disciplines can acquire a teaching qualification. Due to estimated shortages of teachers in Viet Nam, MOET is responding to these deficiencies by strengthening teacher training (WES, 2017).

3. The System of Vocational and Professional Education and Training

This section of the Factbook describes the vocational education and training (VET) system at the lower and upper secondary level and the professional education and training system (PET) at the tertiary level in more detail. Thereby, the term vocational and professional education and training (VPET) refers to both, the VET and the PET system. It is important to note that in Viet Nam, the VPET system as a whole is referred to as technical and vocational education and training (TVET). The term PET itself is more commonly known as post-secondary vocational training.

In general, there are two major supervising authorities of vocational and technical training. These are (a) the *Ministry of Education and Training* (MOET) and (b) the *Ministry of Labour-Invalids and Social Affairs* (MOLISA) in conjunction with the General Directorate of Vocational Training GDVT. The authorities' offering of institutions or programmes differs depending on the level of education served (cf. Table 7, Table 8). It is important to pay close attention to the nomenclature, as terms for institutions and programmes are very similar. Furthermore, both (a) and (b) can be split into a public and a private offering (ADB, 2014). A more precise listing of governing agencies for MOLISA/GDVT institutions is the following: Ministries, People's Committee, Public Enterprise, Public Institutions (all public) and Private Enterprises as well as Individuals (private) (MOLISA, 2015). Enrolment numbers per supervising authority and education level are given in Table 9.

As of 2006 per decree of the *Law on Vocational Training* (ratified by the National Institute for Vocational Education and Training, NIVET), both long-term and short-term vocational training under the jurisdiction of the MOLISA is restructured by level of education. Vocational training centres (VTC) (elementary level), vocational schools (secondary level) and vocational colleges (tertiary level) make up the new offering. Additionally, technical (professional) secondary schools moved into the judicial realm of the MOET (DOE Australia, 2012; NIVET, 2016).

Table 7: Numbers (2015) of <u>public</u> vocational intuitions by level of education and supervising authority

	Level	MOET (a)		MOLISA/GDVT (b)	
VET	Elementary	*No offering*		**VTC**	653
	Secondary	**Technical** (professional) secondary schools	175	**Vocational** secondary schools	178
PET	College	Professional colleges	189	Vocational colleges	142
	BA/BS	Universities, Polytechnics	n/a	*No offering*	

Source: Own table based on NIVET (2017).

Table 8: Numbers (2015) of <u>private</u> vocational intuitions by level of education and supervising authority

	Level	MOET (a)		MOLISA/GDVT (b)	
VET	Elementary	*No offering*		**VTC**	344
	Secondary	**Technical** (professional) secondary schools	128	**Vocational** secondary schools	102
PET	College	Professional colleges	30	Vocational colleges	47
	BA/BS	Universities, Polytechnics	n/a	*No offering*	

Source: Own table based on NIVET (2017).

Table 9: Numbers (2015) of students enrolled at <u>public and private</u> vocational intuitions by level of education and supervising authority

	Level	MOET (a)		MOLISA/GDVT (b)	
VET	Elementary	*No offering*		**VTC**	1,769,095
	Secondary	**Technical** (professional) secondary schools	170,000	**Vocational** secondary schools	128,971
PET	College	Professional colleges	143,635	Vocational colleges	81,133
	BA/BS	Universities, Polytechnics	n/a	*No offering*	

Source: Own table based on NIVET (2017).

3.1 Vocational Education and Training (VET Secondary Education Level)

As part of the VET system in Viet Nam, short-term training is available at a **VTC** after completing a primary school level education. Longer programmes are offered for the upper secondary education level at either **Vocational Schools** or **Technical Schools**. Entering such a programme, will requires having completed at least lower secondary education. All VET programmes are introduced in the next section.

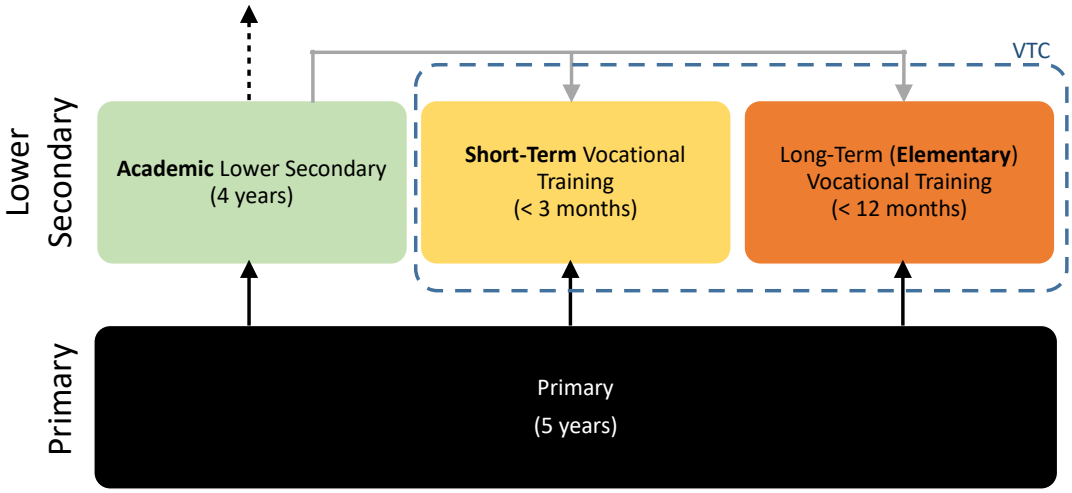
3.1.1 VET on Lower Secondary Education Level

Vocational training (*Sơ cấp nghề*) is available to primary school graduates who chose not to attend an academic lower secondary school.[22] Different programmes are offered, lasting from 3 months (short-term periodic training) up to 1 year (elementary vocational training). This non-formal training is provided by VTCs, which have increased in number of institutions almost fivefold to 684 between 2004 and 2014.[23] Private providers, permitted in Viet Nam since 1998,

[22] Primary vocational training is also offered at select universities, vocational colleges and employment service centres (DOE Australia, 2012).

made up 39 percent of vocational training centres in 2014. Vocational training at this level is also open to attendees or graduates of an academic lower secondary school (ADB, 2014).

Figure 6: Non-formal vocational and formal academic pathways from primary up to lower secondary levels



Source: Own illustration based on ADB (2014) and WCF (2018) and EVBN (2018).

The objective of this initial vocational training is to provide students with a skill set that allows them to perform simple tasks related to a particular trade[24] (MOLISA, 2015). The training should include a minimum of 300 learning hours and awards graduates with three different levels of certificates depending on the duration of the programme (UNESCO, 2018b; DOE Australia, 2012). The economic perspective or outcome of an elementary level vocational education, as described by MOLISA, is that of a simple task worker (MOLISA, 2015). At the end of 2016, admissions to primary training accounted for 77.6 percent of the total admissions in the VPET system, making this by far the most popular programme. Previously, institutions in the VET system in Viet Nam were managed both by MOLISA and by MOET. However, since 2016 Viet Nam has consolidated the mandate and has assigned MOLISA to be the only ministry in charge of initial vocational training in Viet Nam (NIVET, 2018).

[24] The German-Vietnamese Vocational Training Centre for instance, focuses on the training of Mechanics, Industrial Mechanics, Chefs, Restaurant Specialists and Logistics Agents (AHK, 2018).

It was reported that in 2015, 89.2 percent of all participants in elementary and under-three-month vocational training had successfully passed their graduation exams (DOE Australia, 2012; NIVET, 2017).

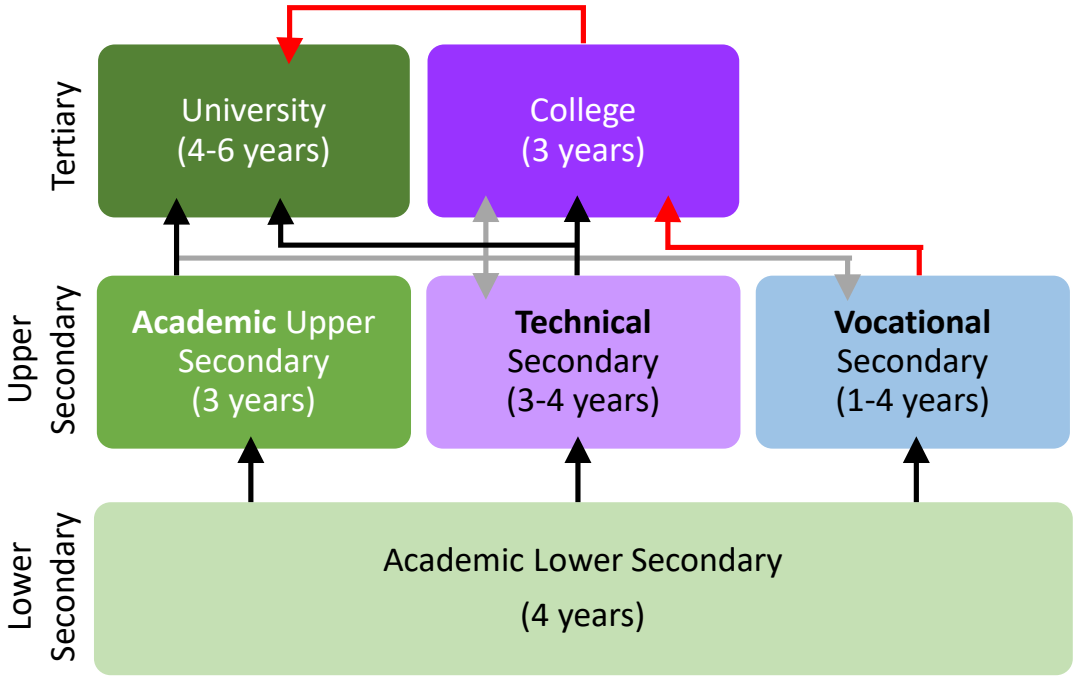
3.1.2 VET on Upper Secondary Education Level

Upper secondary vocational training is open to lower secondary school graduates who chose not to attend an academic upper secondary education. Two vocational pathways are available, encompassing a technical (professional) secondary programme (*Trung học/cấp chuyên nghiệp*) - lasting three to four years and governed by the MOET - or an intermediate vocational programme (*Trung cấp nghề*) - at one to four years length governed by the MOLISA. The main difference between the two pathways are the weights between practice and theory. While the professional programme's curriculum, offered by **technical secondary schools**, is split into 40 percent practice and 60 percent theory, **vocational schools** are more practice-oriented with a proportion of 70 percent practice and 30 percent theory (MOLISA, 2015).[25]

Another key difference between the two paths is the nature of training. Technical secondary schools are said to teach *specialities*. The specialization of *agriculture*, for instance, will offer the curricula of *forestry*, *fishery* and *horticulture*. Some other specialities are *transport*, *construction,* and *industry.* The vocational secondary schools meanwhile, will train in skills and competencies for specific occupations. These are for instance *welders*, *carpenters*, *electricians*, and *mechanics*. In total, 440 programmes are offered at the vocational secondary level (ADB, 2014). Per the governing body - MOLISA - the objective of VET on vocational upper secondary education level is to prepare students to perform tasks at a basic level as well as to be able to deal with complicated issues relating to a particular discipline or trade. Furthermore, students should be able "to apply techniques and technology to their job and work independently or in a team" (ibid.).

[25] Secondary vocational training is also offered at select universities and vocational colleges (DOE Australia, 2012).

Figure 7: Formal vocational and academic pathways from lower secondary up to tertiary levels



Source: Own illustration based on ADB (2014) and WCF (2018), DOE Australia (2012) and EVBN (2018).

Vocational training is mainly school-based. However, to ensure a practice-oriented programme, work-based learning is a fixed element in the VET curricula for both students at secondary and post-secondary level. Work-based learning typically comes in the form of an internship; however, ensuring sufficient supply of learning opportunities of high quality is currently seen as a major challenge (OECD, 2017b).

Given new laws on VET in 2015, the different secondary level VET programmes will be merged. As previously mentioned, MOLISA is the ministry in charge of all institutions belonging to the VET system (OECD, 2017b). At the end of 2016, admissions to training at the professional and (intermediate) vocational level accounted for 12.2 percent and training at junior college level for 10.2 percent of the total admissions in the VPET system (NIVET, 2018).

Private providers made up 34 percent of vocational secondary schools in 2014. Coverage with vocational training institutions is relatively even throughout Viet Nam. However, the majority are located in urban areas. Some rural areas lack vocational training centres, which is why they generally struggle with raising productivity and incomes (ADB, 2014).

Pathways for Graduates

Academic Upper Secondary

Graduates of academic upper secondary education will usually advance to a tertiary level of education in the form of University. If they fail to qualify, or wish to pursue a non-academic education, they may also enrol at college, a higher vocational institution (tertiary level), a technical secondary school, or a vocational secondary school. If they chose to enter secondary level, the may be able to complete the same curricula in only one or two years in case their previous course work is recognized (grey arrows, Figure 7).

Technical Secondary School

Graduates of a technical secondary school are able to enrol at either university or college, subject to entrance tests (black arrows, Figure 7).

Vocational Secondary School

Until recently, graduates of a vocational secondary school were restricted to enrolling at a higher vocational institution. Per new regulations however, they are able to enrol at college as well, subject to entrance tests. Upon completion of their college education, they may then enter university (red arrows, Figure 7).

Source: ADB (2014) and WCF (2018).

Private education providers in Viet Nam concentrate on low-cost fields such as ICT, business subjects, and languages. They are part of the TVET Strategy 2020 and play an increasingly important role as enrolment for private technical secondary schools is forecasted to increase (ibid.).

Currently, no national examinations for vocational training exist and it is up to VPET teachers and instructors to assess their own students. Every vocational education institution issues certificates for graduates individually. Technical school graduates receive a Professional

Vocational Diploma, while vocational school graduates receive the Intermediate Certificate (DOE Australia, 2012). For this reason, Viet Nam plans to implement a national occupational testing to allow for a skills assessment. Training providers who are accredited by MOLISA are entitled to issue qualifications, however, certification of skills standards need approval from MOLISA (ibid.). As of 2015, it seems that vocational graduation exams have been instated. It was thusly reported that in 2015, 97.2 percent of all participants in vocational intermediate training had successfully passed their graduation exams (DOE Australia, 2012; NIVET, 2017).

According to ADB (2014), it will be important to put a higher focus on general education (mathematics, languages, etc.) to enable lifelong learning and learning on the job. This is especially crucial in light of market uncertainties and changes that affect specialized training content. A higher degree of general education enables a better foundation to learn on the job (ADB, 2014).

3.1.3 Official Development Assistance (ODA)-Funded VET Programmes

Apart from sponsoring several Vietnamese vocational programmes, ODA is also allocated towards foreign ventures. Several international programmes, funded through a donor country's ODA, have been launched over the years. The Worldbank as well as the Asian Development Bank are supporting VET programmes in Viet Nam, e.g. the ADB invested around 50 million dollars into a lower secondary education development project until 2006 (ADB, 2012). In the same vein, VET in Viet Nam is supported by single countries as for example Australia (invested from 2017 to 2018 22 percent of the total 86.3 million dollars Viet Nam foundation in education (DFAT, 2018)), Switzerland (SDC), Germany (BMZ) and Japan (JICA).

3.2 Professional Education and Training (PET; Post-Secondary Level)

At the post-secondary level, PET is provided to upper secondary graduates and students who have completed VET training at the upper secondary level (cf. Figure 7). Institutions providing PET at post-secondary level are vocational colleges (*Cao đẳng*) and higher vocational institutions under the jurisdiction of the MOLISA. Additionally, universities (governed by the MOET in conjunction with other ministries) increasingly offer college-level programmes as well. In 2014, there existed 380 training curricula at the post-secondary level. Programmes typically have a duration between two and three and a half years awarding graduates an Associate degree (*Cử nhân Cao đẳng*), or a Junior College Graduation Diploma (*Bằng Tốt Nghiệp Cao Đẳng*) (WES, 2017).

Access to a vocational college requires students to have completed either an academic upper secondary school or a vocational secondary school. Unfortunately, lower income groups in Viet Nam are less likely to fulfil this requirement. Only 6.5 percent of households in the lowest

income quintile completed upper secondary school compared to 19 percent for the upper quintile (ADB, 2014).

Similar to upper secondary vocational programmes, the curriculum for PET includes a practical part of up to 30 percent. Programmes encompass the following fields of study: business administration, banking, accounting, tourism, information technology, or health care. Admission to VPET programmes is based on the upper-secondary school graduation examination (WES, 2017).

College graduates may enrol for university bachelor programmes at the tertiary education level (ISCED 6). However, access depends on the VPET programme chosen and does not qualify for all programmes taught at ISCED level 6 (UNESCO, 2018b). It was reported that in 2015, 96.8 percent of all participants in collegiate vocational training had successfully passed their graduation exams (DOE Australia, 2012; NIVET, 2017).

The best-known vocational colleges and universities offering college level programmes in Viet Nam are (MOLISA, 2015):

- Ho Chi Minh Vocational College
- Hanoi industrial Vocation College
- Vocational College of Technique and Technology
- Ba Ria-Vung Tau Vocational College
- Hanoi Vocational College of High Technology
- Hanoi University of Industry

All save few specialize in training their students in either Machining, Electricity or Electronics. Other programmes are Mechanical Engineering, Refrigeration & Air-conditioning and Welding.

Tuition remains one of the most important sources of income for vocational colleges. Universities charge considerably higher fees. Contrary to an academic collegiate or university education however (cf. 2.5), tuitions for vocational programmes are, by law, capped at either VND 590,000 (US$ 25,6) per month for social studies and VND 700,000 (US$ 30.3) per month for natural studies in the academic year 2017-18 (NIVET, 2017).[26]

[26] Fees are given in Vietnamese Dong (VND) and in US-Dollar (US$) at a 2018 exchange rate of US$ 1 = VND 23,195 for the school year 2017-18 (Exchange Rates, 2018).

3.3 Regulatory and Institutional Framework of the VPET System

3.3.1 Central Elements of VPET Legislation

The Education Law issued in 2005 is the official regulation of the Vietnamese national education system, which is based on Marxism-Leninism ideology and inspired by ideas from Hồ Chí Minh. However, it also includes scientific and modern elements. Educational activities are not limited to learning in schools, but also in the family and throughout society. The law covers all stages of the education system, starting from early childhood to vocational and higher education. It includes provisions covering the following areas (UNESCO, 2018c):

- The formal education system
    - Early childhood education, i.e. crèches and kindergartens
    - General education, i.e. primary, lower secondary and upper secondary schools
    - Professional education, i.e. vocational secondary education and vocational training
    - Undergraduate and post-graduate education
- Schools and other educational institutions
    - Public schools
    - Private school
    - People-founded schools
- Duties and rights of teachers
    - E.g. Attainment of standard professional qualifications
- Duties and rights of learners
    - E.g. Right to respect, equal treatment and adequate information
- School, family and society
    - E.g. Responsibility for actively liaising with families and society
- State management of education
    - E.g. Formulation and direction of implementation of strategies, plans and policies

3.3.2 Key Actors

Various agents contribute to the Vietnamese VPET system. As mentioned previously, VET and PET are generally referred to as TVET in Viet Nam. Key actors are briefly described in the following list.

Government

The Ministry of Labour, Invalids and Social Affairs (MOLISA) is generally responsible for vocational education and coordinates training provision of all entities. Previously, institutions in the VPET system in Viet Nam were managed both by MOLISA and MOET. However, since

2016 Viet Nam has consolidated the mandate and has assigned MOLISA to be the only ministry in charge of vocational education and training in Viet Nam (NIVET, 2018).

In addition to MOLISA, local authorities at provincial level, private sector actors and other enterprises are vital for the development of VPET. Institutions such as the Ministry of Construction, Ministry of Industry and Trade (MOIT), and Ministry of Culture, Sports and Tourism provide VPET programmes in fields that are relevant to their area of activity. For example, MOIT manages 48 education and training institutions, including 10 universities, 27 colleges, 1 institute for trade and industry professionals, 8 vocational colleges, 1 professional secondary school and 1 vocational secondary school (OECD, 2017b). Furthermore, organizations such as the Women Union, Farmer Union, and Youth Union also offer short- or long-term vocational training programmes (UNESCO, 2018b).

Representation and advisory bodies

Representative and advisory bodies for the vocational education system in Viet Nam are limited. The General Directorate of Vocational Education and Training (GDVT), which reports to MOLISA, holds an advisory role in governing and implementing respective laws in VET (UNESCO, 2018b).

However, employers, that would play a key role in the VPET system, appear to be weakly embedded. Despite some arrangements for consultation with employers, influence on policymaking by firms is restricted and many training institutions lack systematic and close collaboration with companies. Contrastingly, in Switzerland the role of employers and trade unions in the VET system is incorporated in Swiss laws. Ensuring that employers and trade unions have a say in VPET, education policymaking remains a challenge not only for Viet Nam, but also for many other countries (OECD, 2017b).

Education and training providers

In the VPET system, training is delivered by vocational centres, secondary vocational/technical schools and junior colleges. The number of VPET institutions has increased from 1,467 schools in 2015 to 1,972 schools in 2016. This includes institutions from all three education levels – lower, upper secondary and post-secondary education. Specifically, the number of colleges increased by 215 percent; the number of VET schools increased by 19.7 percent (secondary level); and the number of VET centres increased by 10.4 percent (primary level) (NIVET, 2018).

In 2016, only about a third of all schools were non-public despite a relatively favourable regulatory environment for private training providers. These are free to fix their own fee level

provided that they inform and cooperate with the respective governmental authority. Analogous to public institutes, private training providers complete the same registration screening process. Furthermore, they must conform to the same curriculum framework (ADB, 2014).

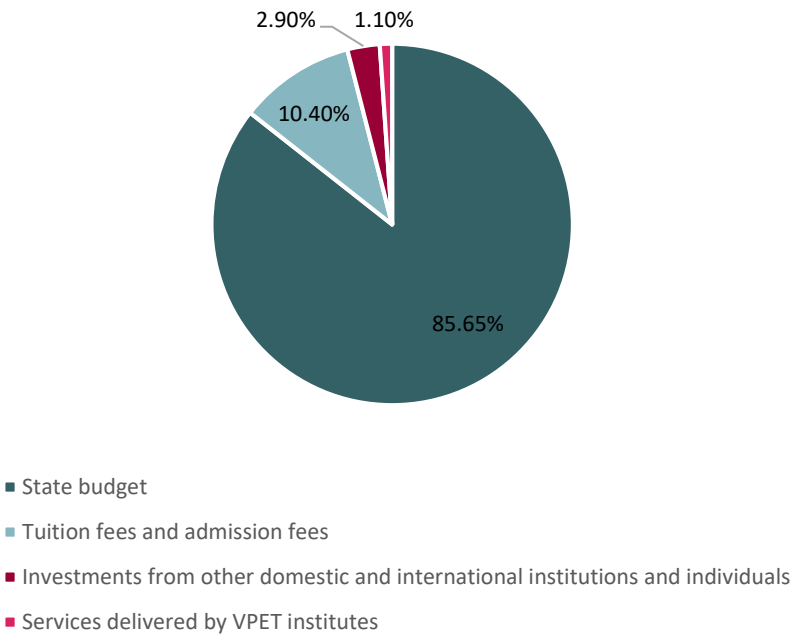
A quarter of the 1,972 institutions in 2016 were operated as an under-enterprise VET institute. Under-enterprise TVET institutes are defined as “institutes, which operate under enterprises, companies or business corporations to provide training according to the training needs of these businesses and companies” (NIVET, 2018, p. 47). Training delivered by under-enterprise TVET exist on the basis of contracts signed between the firms and TVET institutes. The number of trainees and training quality contractually fixed before the training is provided. Moreover, these institutes may provide training on public requests. (NIVET, 2018).

3.4 Educational Finance of the VPET System

The Vietnamese VPET system and its institutions are financed by the Vietnamese state budget and other non-state financial resources, which is legally based on the Law on State Budget, the Law on Education as well as on current guiding documents (NIVET, 2018).

The structure of financial resources allocated to the VPET system in the period between 2011 and 2016 is visualized in Figure 7 and can be described as follows: On average, 85.7 percent of financial resources were contributed by the state budget, which constitutes the largest part. The second largest portion of financing originates from tuition and admission fees approximately accounting for 10.4 percent of financial resources. The rest originated from income from public services provided by VPET institutes as well as investments and financial support from domestic and international organizations and individuals (ibid.).

Figure 8: Structure of financial resources for vocational training during 2011-2016 (in %)



Source: Own illustration based on NIVET (2018).

The three main categories of expenditures for which the state budget for vocational training is used for are recurrent expenditures, basic construction expenditures, and national target programmes (ibid.).

Budget for recurrent expenditures of vocational training constitutes a significant portion of the overall funding and is crucial for achieving VPET objectives. In this category, costs of VPET institutes relate to the financing of regular tasks of these institutes. The budget is calculated by defining the average cost per student and the number of students who will receive funding via state budget. Recurrent expenses have continuously increased on a year-to-year basis and have almost doubled to approximately USD 303.1 million between 2011 and 2016. This cost component amounted to 35 percent of the total state budget allocated to vocational training in 2011 and increased up to 43 percent in 2016 (ibid.).

Expenditures for basic construction investments relate to funding for the development of technical infrastructure of VPET institutes. Like with recurrent expenditures, a similar trend can be observed as funding has more than doubled between 2011 and 2016. This cost component amounted to 41 percent of the total state budget allocated to vocational training in 2011 and increased considerably up to 53 percent in 2016 (ibid.).

The last category is funding for national target programmes and has the objective to achieve specific goals that must be urgently addressed or other significant deficits in the VPET system.

Overall, these changes should improve the training programme and the education and training quality. This practice of using state funds for target programmes is conducted in many countries and in developing countries especially. This cost component amounted to 24 percent of the total state budget allocated to vocational training in 2011 and decreased substantially down to 4 percent in 2016 (ibid.).

Tuition fees in the VPET system are generally regulated. Respective laws stipulate tuition fee exemption and reduction, training allowances as well as policies on fees collection and utilization, which are applied to public educational institutes. For private training providers, no regulatory cap on fees exist. New regulations for the 2016-2020 period introduced changes in the tuition fee landscape. VPET institutions thusly reported an increase in income from tuitions of nearly 1.6 times during the period 2011-2016. For this reason, income of VPET institutes from tuition fees has been increasingly spent on compensating the cost of training activities (ibid.).

Public VPET institutions in Viet Nam have a relatively high degree of financial autonomy. They have the right to collect and obtain different types of income and make decisions on how to use this income. Furthermore, salaries can exceed the minimum wage and public salary scales. Going forward, generating and managing income from their services will become more important as it is encouraged by the state. Contrastingly, private training institutes do not obtain any regular state funding and thus need to generate sufficient income through student fees. The Vietnamese government will further incentivize and encourage participation of private sector institutes in the vocational training realm as they have made this as one of their key priorities (ibid.).

Domestic and international donors

In the context of embedding education in society, the Vietnamese government promotes and creates favourable conditions for domestic individuals and organizations to make contributions of the VPET system in the form of intellectual, physical and financial resources. Enterprises are incentivized by a corporate income tax exemption/reduction to make an investment or donation. The same holds for individuals for their personal income tax (NIVET, 2018).

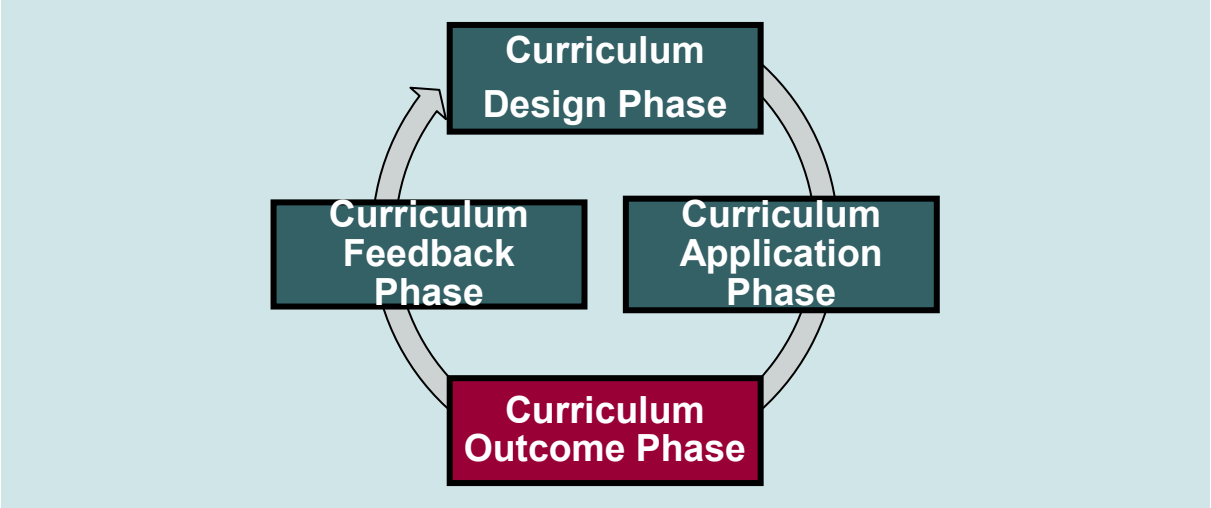
A significant part of investments and donations for the VPET development originates from international organizations and individuals. The support by foreign actors for the Vietnamese VPET system has increased thanks to official development assistance (ODA) and funding by international organizations and foreign enterprises. Furthermore, international organizations provide direct support through development projects. The most significant donors include the

United Nations Educational, Scientific, and Cultural Organization (UNESCO), the International Labour Organization (ILO), the Asian Development Bank (ADB), and the German International Cooperation (GIZ) (ibid.).

3.5 Curriculum Development

The curriculum is a central element for the functioning of a VPET system by defining the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with a curriculum design, a curriculum application and a curriculum feedback phase. This theoretical concept is called the Curriculum Value Chain and is depicted in the picture below (CVC; for more details see (Renold, et al., 2015)).

Figure 9: Curriculum Value Chain (CVC)



Source: Own illustration based on Renold, et al. (2015).

In the curriculum design phase, VET curriculum content and qualification standards are decided upon by the relevant actors. Therefore, the discussion in the respective subchapter below focuses on the degree and the amount of stakeholder participation concerning curriculum design in Viet Nam. The curriculum application phase revolves around the implementation of the curriculum. Because learning environments differ heavily across countries – especially with respect to the prevalence of workplace learning – the curriculum application phase subchapter in this Factbook focuses on those learning environments. Specifically, it addresses where learning takes place and whether the curriculum dictates both school and workplace learning or only one of the two. Finally, curriculum outcomes can be

collected and analysed in the curriculum feedback phase. This evaluation process is important as it may render a more refined curriculum design than was possible in the first place.

3.5.1 Curriculum Design Phase

The design phase is crucial for the whole curriculum process. In order to ensure that skills taught in the VPET programmes correspond to the needs of the labour market, experts from companies should be involved in defining the qualification standards and learning contents of the curricula.

From a broad perspective, curriculum development in Viet Nam must be understood in the context of system harmonization and standardization among ASEAN countries. The synchronization of the qualification framework has led to the ASEAN Qualification Reference Framework (AQRF) and to the creation of national and regional qualification frameworks in many countries throughout this region. In accordance with the AQRF, Viet Nam has developed the National Qualification Framework (NQF) and more specifically, the National Vocational Qualification Framework (NVQF). Furthermore, Viet Nam has defined a national skill standard that consists of regulations on the performance level, requirements of content, and the skills and attitudes to perform the tasks of dedicated “focal occupations”. These regulations were key for establishing a national standards-based vocational training system (ADB, 2014).

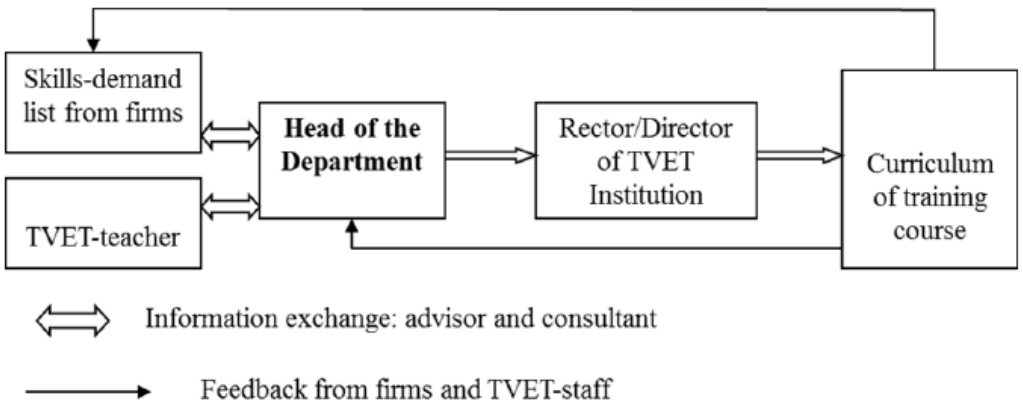
GDVT, a sub-unit of MOLISA, is in charge of curricula development covering all occupations in Viet Nam. Focal occupations covered by the national skills standard are subject to a pre-defined development process for curriculum, syllabus and learning materials. DACUM and other standard-based approaches have been among the most significant methods for curricula development. The standard design process for curriculum design has traditionally included a national committee for the curricula development as well as an appraisal committee. Both committees must be approved by MOLISA (ILO, 2016). As for regional and international key occupations, the curriculum, syllabus and learning materials are designed on the basis of programmes from developed countries in Asia and elsewhere in accordance with the Vietnamese situation (Diep, 2016). According to a report from 2016, “MOLISA has been transferring 70 curriculums of 70 key occupations of international level: eight curriculums with international standards were transferred from Malaysia in 2012, 12 curriculums with international standards were transferred from Australia in 2015, and 50 curriculums are being transferred continuously until 2020” (Diep, 2016, p. 13).

For non-focal occupations (i.e. occupations not covered by the national skills standards) GDVT develops the “framework curricula”, which are used by training institutions to determine the final syllabus. For the framework curricula, a drafting committee is put in place that consists of

individuals from enterprises, vocational schools and colleges, scientists and experts. Furthermore, an appraisal committee for each occupation is composed with representatives with similar backgrounds as the ones from the drafting committee. However, the individuals from the drafting committee must not be part of the appraisal committee. Like with the process for the national skills standard, the process for developing a framework curriculum contains a comprehensive analysis of job requirements. While two thirds of the curriculum committee must be VPET trainers, the remnant one third should include enterprises. This defined framework curriculum is the basis for VPET institutions, which are free to design 30 percent of the content of the specific course, as 70 percent is pre-defined. As of 2014, there were 205 framework curricula, which were designed for the most common occupations covering approximately 60 percent of students enrolled (ADB, 2014). Every final syllabus must be approved by MOLISA (ILO, 2016).

According to a recent report from 2018, the process of the curriculum design phase can be visualized as in Figure 8. The head of department of the respective TVET institute (e.g. Head of Electrics-Electronics) is responsible for the quality of the training course acts as a facilitator in the entire process and records a list of skills-demands from firms in cooperation with VPET teaching staff resulting in a first sketch of a curriculum. Subsequently, the draft of the curriculum is presented to firms for their feedback in order to finalize the curriculum. The rector or director of the institution eventually issues the final curriculum, which serves as a guideline for the new training courses (Vo, 2018).

Figure 10: Process of curriculum development according to actual Vietnamese TVET law (VPET) (Vo, 2018)



Source: Vo (2018).

Unfortunately, collaboration with the private sector is limited, which is why the development of curricula is not sufficiently based on relevant information on required skills from the industry.

Consequently, training in the VPET system has been informed by the perception of VPET institutions and not on real employers' skills demand (Vo, 2018).

3.5.2 Curriculum Application Phase

The way in which a curriculum is implemented – especially with respect to learning environments – is important to achieve the intended learning outcome.

As for the learning environment, vocational training in Viet Nam is mostly school-based and is rarely delivered on the workplace. Due to the mainly school-based training provision and the lack of enterprise-based training, a shift to more workplace modes of training is planned for the VPET system. However, this transformation requires VPET teaching personnel to engage with new ways of training and assessment techniques. According to a report from ADB, pedagogical institutions' efforts to introduce teachers to workplace learning theory or competency-based training is currently insufficient (ADB, 2014).

Teachers generally enter the VPET system after formal schooling in academic systems, and not from industry. The strong emphasis on educational theory at the expense of technical skill acquisition and application results in training practices that are in contrast to real technical pursuits relevant for skills acquisition. Furthermore, given a shortage of VPET teachers with increasing student enrolment has led to an above-average student-teacher ratio of 30 against the standard of 20. In addition to personnel shortages, many classrooms and technical workshops lack adequate materials and equipment rendering workplace simulations difficult. However, the Skills Enhancement Project was launched to address issues related to workshop requirements and teacher development (ADB, 2014). According to a report from ILO (2016), despite improvements "training quality remains generally weak in Viet Nam , mainly due to old, outdated machinery and equipment at TVET schools, poorly qualified trainers, inadequate curricula, and ineffective testing and certification, all of which are linked to a certain extent to the issue of limited private-sector involvement" (ILO, 2016, p. 261).

With regard to examination quality, skills are typically tested at VPET institutions followed by the issuance of the related certificate by the same institution. The process works mainly without any industry participation even though some national skills testing initiatives have been launched in the past. Consequently, VPET schools often exhibit curricula that do not reflect private-sector realities and lack relevance. Additionally, a regular feedback channel cannot be established, since enterprises are not involved sufficiently. However, cooperation with foreign institutions such as the Japan International Cooperation Agency have strengthened private-sector enterprises inclusion for skills assessment processes (ILO, 2016).

To ensure a smooth transition from the VPET education system to the private sector, career guidance and counselling is offered in Viet Nam. However, according to reports, career guidance is not provided in the right time when young people start to be confronted with career choices (e.g. during, or at the end of lower secondary school). Moreover, the advice given places more importance on choosing the right university instead of informing students about all possible educational paths. Beyond academic institutions, employment service centres exist, but mainly focus on graduates and job seekers who have already decided on a specific career path. Other institutions are also offering career guidance such as youth unions and mass organizations in rural areas, and NGOs such as Vietseed (ibid.).

3.5.3 Curriculum Feedback Phase

The curriculum feedback phase deals with the question, whether and how educational outcomes are analysed. Based on this, the curriculum could be re-worked and improved.

MOLISA and GDVT are both in charge of building and strengthening the quality assurance systems concerning vocational training. The current model of quality assurance of VPET rests on three pillars: self-assessment, internal assessment and external assessment (Diep, 2016).

Self-assessment relates to quality evaluation at an institution level. A variety of variables impact training quality such as curricula, learning materials, qualification and quantity of vocational teachers and management staff, facilities (including buildings, classrooms, tools, equipment, machines etc.). Therefore, by means of a base management system of VPET institutions, the consistency and balance of all these variables are recorded and managed. Internal assessment encompasses the quality assessment executed by national vocational training accreditation agencies such as the Viet Nam Vocational Training Accreditation Agency (VVTAA) and three other national centres of vocational training accreditation. External assessment refers to non-national and autonomous agencies that conduct quality evaluations. They work with their proprietary accreditation criteria, which do not depend on national criteria (ibid.).

An important element of quality assurance is the existence of feedback channels. For example, feedback channels with firms that employ VPET graduates are crucial to enhance the quality of programmes. With reference to curriculum development process shown in Chapter 3.5.1, curricula must be understood as a ‘moving target’ and open for corrections and modification that improve them continuously. The exchange of information in Viet Nam is usually conducted via meetings or indirectly by submitting documents (Vo, 2018).

Quality assessment in general rests on a wide-ranging and efficient information system embedded across all relevant institutions in the VPET ecosystem. However, GDVT lacks data on basic components of the VPET system such as school and training programme enrolments or annual graduate output. Moreover, except for certain data points there generally exists a lack of national information and statistics that form the basis for a continuous monitoring, evaluation and planning. In particular, little knowledge about costs and expenditures in the VPET system exists. Finally, public financing is not linked to performance (ADB, 2014).

The information need goes beyond VPET institutions and encompasses information about the labour market for subsector planning. “Successful sector planning and policy development necessitates topical data on relevant indicators” (ADB, 2014, p. 63). However, Viet Nam lacks a comprehensive system for tracking and evaluating sector performance (Diep, 2016).

3.6 Supplying Personnel for the VPET System (Teacher Education)

Trainers in the Vietnamese VPET system need to exhibit sufficient vocational and technical as well as pedagogical skills. There are different pathways for trainers to enter into the VPET system (ILO, 2016):

1. General education at university
2. Technical education at university
3. industry (e.g. engineers who are or were practicing in the field)
4. good students from VPET junior colleges

On the one hand, trainers taking the general education (1) or technical education path (2) often lack the practical knowledge and technical and vocational skills. On the other hand, they exhibit strong pedagogical skills. Teachers from the industry (3) and good VPET students (4) are generally weaker in terms of pedagogical skills, but perform well concerning vocational skills. The latter represent a relatively small share of all teachers in the VPET system. One major reason for this are higher wages in private-sector jobs making it difficult for VPET institutes to attract these profiles (ILO, 2016).

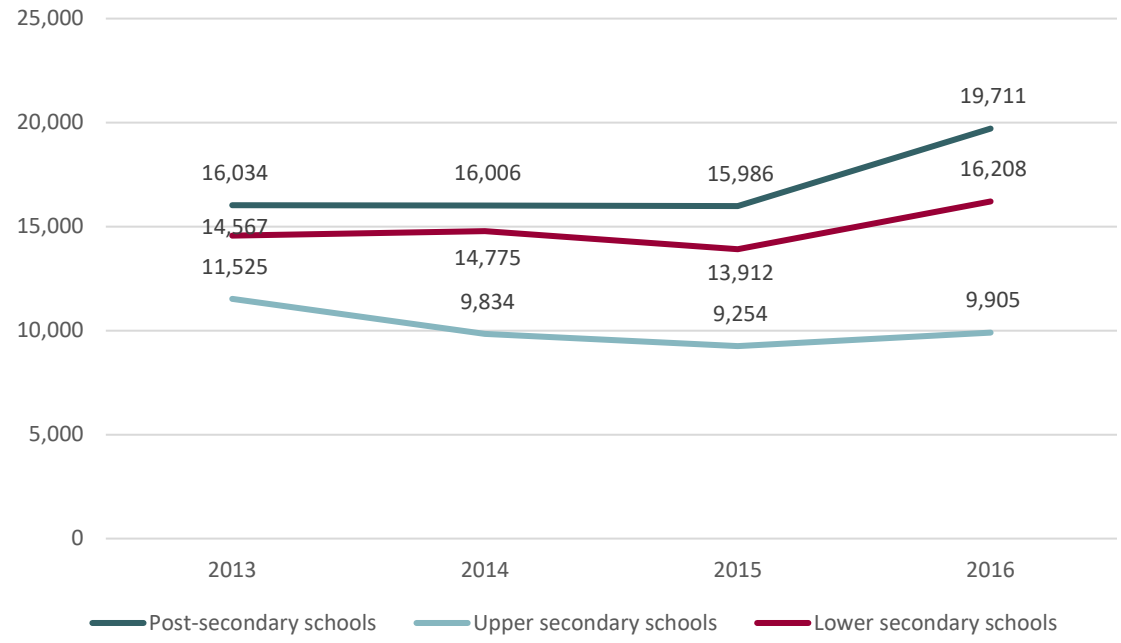
Few institutes exist that offer technical teacher training (in 2016 there were only four technical training universities in Viet Nam). The majority of trainers complete a 6-month teaching certification courses that is available to bachelor graduates. The Vocational Training Law stipulates that a teacher of theory at post-secondary (junior colleges) or upper secondary level is required to exhibit at least a bachelor’s degree, and a trainer for practical subjects must have a junior college diploma, or be an artisan. In the light of changing skills, requirements of teachers that are now being asked to teach both theory and practical classes, the minimum

qualification becomes, de facto, a university bachelor's degree. However, especially for practical courses this is not always the most appropriate level of teacher training (ADB, 2014).

Shortage of VPET teachers is a major issue in Viet Nam. Currently, GDVT has budgeted 10 million US dollars to provide training to teachers in 34 occupations that are considered focal for ASEAN countries. The funding also covers training abroad in other countries such as the Republic of Korea or the Republic of China (Taiwan). Furthermore, GDVT runs programmes aiming to improve vocational skills of teachers from pathway (1) as well as pedagogical skills for pathways (3) and (4) (ILO, 2016).

Concerning the development of the basis for VPET teacher training, industry representatives are included at various stages of the design process such as developing standards and curricula frameworks. Moreover, they are involved for developing the actual course programmes themselves (ILO, 2016). However, participation of the industry in VPET activities is low and there are only few mechanisms promoting higher participation. As a result, few learning opportunities for teachers exist that would expose them to new technologies, work practices or workplaces in general (ADB, 2014). Figure 9 visualizes the development of the number of teachers active in the Vietnamese VPET system.

Figure 11: Teachers in VPET institutions in 2016 (absolute numbers)



Source: Own illustration based on NIVET (2018).

4. Major Reforms in the Past and Challenges for the Future

4.1 Major reforms

One of Viet Nam's core pillars to long-term economic growth is the modernization of its education system as a whole. Viet Nam's education system is considered to lag behind its Southeast Asian counterparts highlighting the need for general reforms. As part of the "socio-economic development strategy for 2011-2020", education plays a crucial role in advancing the country's human capital and better meet the manifold needs of its enterprises in a globalized world (WES, 2017).

Current reforms for implementation by 2020 include (ibid.):

- Establishment of new accreditation and quality assurance mechanisms
- Increase in higher education enrolments by 125 percent, from 200 students per 10,000 people in 2010 to 450 students per 10,000 people
- Improvement of teaching quality by introducing new requirements (nearly all higher education instructors must have a masters or doctoral degree)
- Development of labour force by investing in applied, employment-geared training
- Increase enrolment for applied programmes up to 70-80 percent of the student population
- Enhancement of secondary education system by introducing changes to high school graduation examinations and university admissions
- Internationalization of Viet Nam's higher education system by improving English-language education and promotion of transnational cooperation and exchange (Australia, France, U.S., Japan, Germany)

The above-mentioned changes affect the entire education system in Viet Nam including VPET. In fact, there have been specific changes in the VPET system as well. New laws on Vocational Education and Training were approved by the National Assembly and came into force in July 2015. The new laws encompass the following elements (OECD, 2017b):

- Simplify the range of programmes on offer
- Clear allocation of all VPET programmes to one of the three newly defined levels: elementary, intermediate and diploma level (junior college)
- Decrease complexity of institutional landscape by mergers as education will only be provided by centres for VET, VET secondary schools and junior colleges (PET)
- Separation of junior college system from the higher education system

- Changes in policy areas such as vocational teachers' and trainers' careers, support for vocational students, testing and examination activities.
- Increase autonomy of VPET institutions

4.2 Major challenges

Despite the major advancements of the education system as a whole and in particular the VPET system, many challenges remain for Viet Nam's VPET system to be addressed (ADB, 2014; NIVET, 2018; ILO, 2016):

- Stronger policies to promote the engagement of businesses in VPET activities (curriculum development, enterprise-based training, feedback loops)
- Strengthen linkage between VPET institutions and enterprises as a majority of SMEs do not have sufficient resources to participate or invest in VPET activities
- Reduce variability in skills acquisition by introducing standards and more teacher training
- Improve administrative apparatus to fix issues such as lack of statistics on system performance, integrated planning, and outdated financial management
- Solve problem of unequal access to vocational skills between urban and rural areas
- Address insufficient funding for schools that must cover high costs associated with infrastructure, equipment, teacher training, and qualifications (VPET provision can be very expensive due to the constant requirement for upgrading as technology changes)
- Reduce general shortage of VPET instructors that leads to overcrowding

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