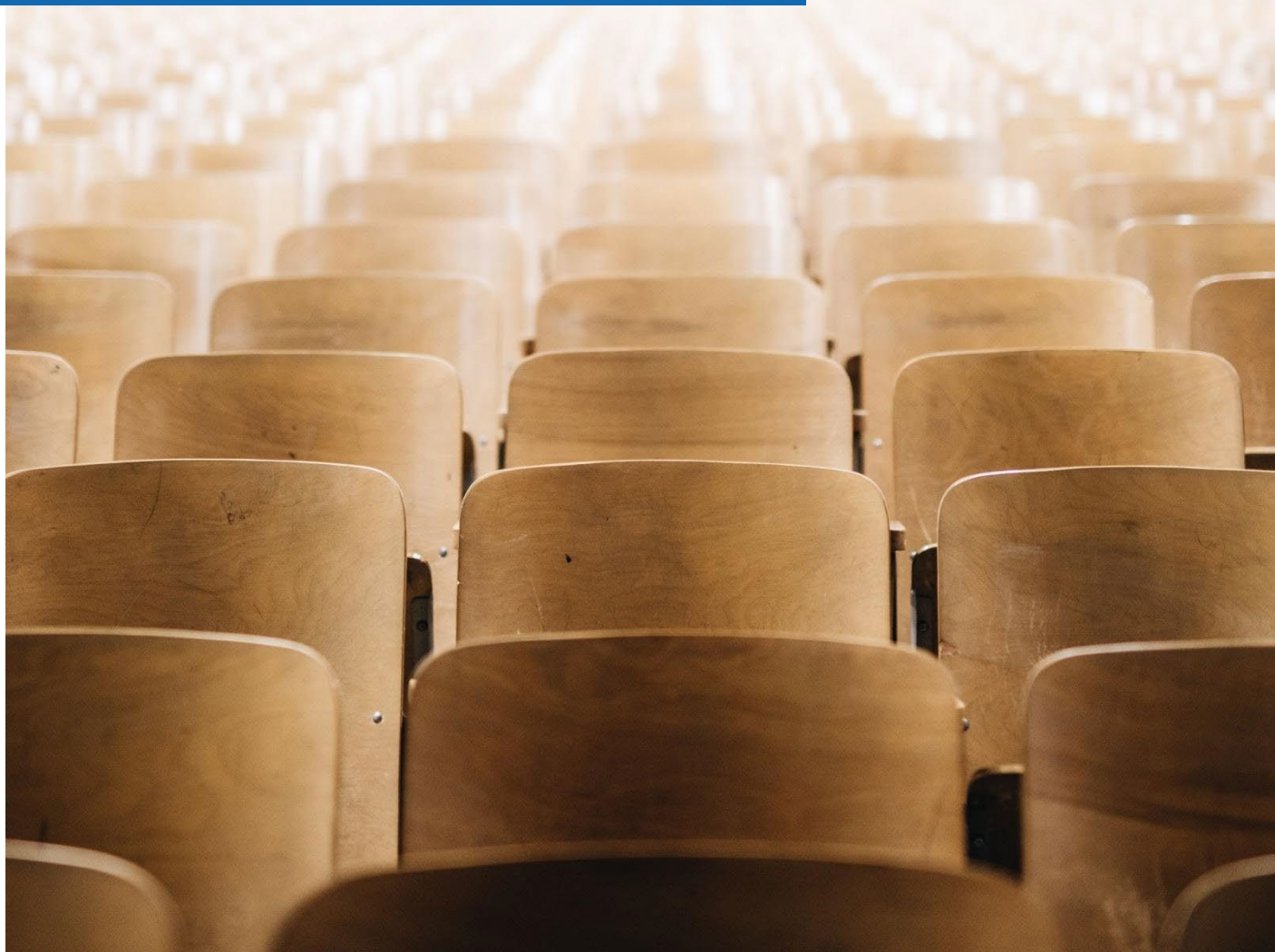


Factbook Education System: Myanmar

CES Chair of Education Systems

CES Factbook Education Systems, No. 16, 2022



Editing and Acknowledgement

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List of Abbreviations

ADB	Asian Development Bank
AFEO	ASEAN Federation of Engineering Organisations
ASEAN	Association of Southeast Asian Nations
CVT	Centre for Vocational Training
DSW	Department of Social Welfare
DTVET	Department of Technical and Vocational Education and Training
DVET	Department of Vocational Education and Training
ESDL	Employment and Skills Development Law
EU	European Union
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GII	Global Innovation Index
GIZ	German Society for International Collaboration
GTHS	Government Technical High School
GTI	Government Technical Institute
ILO	International Labour Organization
ITC	Industrial Training Centers
ISCED	International Standard Classification of Education
KOF	Swiss Economic Institute
MOE	Ministry of Education
MOI	Ministry of Industry
MOLIP	Ministry of Labour, Immigration and Population
MSWRR	Ministry of Social Welfare, Relief and Resettlement
NEL	National Education Law
NER	Net Enrolment Rate
NGO	Non-Governmental Organisation

NLD	National League for Democracy
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
PET	Professional Education and Training
PPP	Purchasing Power Parity
SMVTI	Singapore-Myanmar Vocational Training Institute
TVET	Technical and Vocational Education and Training
UMFCCI	Union of Myanmar Federation of Chambers of Commerce and Industry
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	International Centre for Technical and Vocational Education and Training
USDP	Union Solidarity and Development Party
VET	Vocational Education and Training
VPET	Vocational and Professional Education and Training
VPETA	Vocational and Professional Education and Training Act
WEF	World Economic Forum
WGI	Worldwide Governance Indicators
YLMI	Youth Labour Market Index

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1. Foreword

The increasing competitiveness of the world economy as well as the high youth unemployment rates after the worldwide economic crises in 2008/9 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 referred to together 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, 2017).

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 CES Education System Factbook Series¹ 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 CES Factbook Education Systems: Myanmar, we describe Myanmar'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 Myanmar's economy, labour market, and political system. The second part is dedicated to the description of the formal education system. The third section explains Myanmar's vocational education system. The last section offers a perspective on Myanmar's recent education reforms and challenges to be faced in the future.

¹ From 2013 to 2019, the Factbooks were produced within the framework of the Education Systems research division at the KOF Swiss Economic Institute. From 2020 they will be produced by the Chair of Education Systems (CES) group.

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The Education System Factbooks have to 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 Myanmar's Economy and Political System

Table 1. Key Statistics and Information on Myanmar

Category	Outcome
Population	(2020 est.) 54,775,000
Area	676,533 km ²
Location	Southeast Asia
Capital city	Nay Pyi Taw (Naypyidaw)
Government	Military regime
Official language	Myanmar (Burmese)
National currency	Myanmar Kyat (MMK)

Source: own table based on Encyclopaedia Britannica (2021a).

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 are briefly described in the first chapter of this factbook. In addition, this chapter provides an overview of Myanmar's political system with an emphasis on describing education politics. Table 1 reports key statistics and information about Myanmar, which are further discussed in this chapter.

1.1 Myanmar's Economy

In the last decade, the Republic of the Union of Myanmar experienced a transition to democracy with its first democratic elections occurring in 2015. This critical turning point generated a wave of optimism. The modernisation of economic and financial institutions and systems together with a liberalisation of product and factor markets and the country's integration into regional markets resulted in improvements in social welfare and rapid economic growth (World Bank, 2020a). Over the two decades from 2000 to 2019, Myanmar more than quadrupled its gross domestic product (GDP) per capita² with an increase of approximately 475%. While this increase is higher than the average among East Asian and Pacific countries (excluding high-income nations³), Myanmar's GDP per capita remains relatively low at

² Current international US\$ at purchasing power parity.

³ East Asia and the Pacific (excluding high income) includes American Samoa, Cambodia, China, Fiji, Indonesia, Kiribati, Korea (Dem. People's Rep.), the Lao People's Democratic Republic, Malaysia, the Marshall Islands, Micronesia (Fed. Sts.), Mongolia, Myanmar, Papua New Guinea, the Philippines, Samoa, Solomon Islands, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu and Vietnam.

US\$5,297.44 in comparison to the average of US\$15,025.15 among East Asian and Pacific countries or the US\$44,650.43 of organisation for economic co-operation and development (OECD) members (all adjusted for purchasing power parity; World Bank, 2021).

From 2000 to 2019, Myanmar's economy grew at an average annual rate of 16.1%, which surpasses the East Asian and Pacific average of 12.8% and is significantly higher than the OECD members' growth rate of 3.6%. While it was previously expected that Myanmar's economy would continue to grow at an annual rate of over 6%, with the impact of the COVID-19 pandemic and the recent political instability following the events of 1 February 2021, GDP is expected not only to stagnate but to decrease approximately 18% in 2021 (World Bank, 2020a; World Bank, 2021).

The increase in GDP had a positive impact on income distribution. While available data is scarce, the World Bank (2021) estimated that the Gini coefficient⁴ for Myanmar was 38.1% in 2015 and 30.7% in 2017. This reduction by 7.4 percentage points is equal to a reduction in income inequality. This aligns with the observation that in the 12-year period between 2005 and 2017, the poverty rate was reduced from 48 to 25%. Meanwhile, the stagnation in economic growth threatens the income of poorer households, reducing the previous progress and accomplishments (World Bank, 2020a).

Table 2 provides an overview of the value added and the share of overall employment by sector for Myanmar and, as a reference, the member states of the European Union (EU-28). 48.9% of Myanmar's labour force was working in the primary sector in 2019, but this sector accounted for only 22.2% of the total value added. While the share of the labour force in the secondary sector is smaller at 16.9% in Myanmar compared to 21.6% in the EU-28, it contributes more to the value added (35.9%) than in the EU-28 (24.4%). The tertiary sector is the second-largest sector in terms of the labour distribution with 34.2% of the labour force employed in this sector. The value added by this sector is the largest at 41.9%, but the secondary sector has statistically higher labour productivity. The same is true for the EU-28 member states in terms of productivity: the tertiary sector accounted for 74.1% of the total employment and 73.9% of the value added in 2019.

Table 2: Value Added and Employment by Sector, 2019

Sector	Myanmar: Value Added (%)	EU-28: Value Added ⁵ (%)	Myanmar: Employment (%)	EU-28: Employment (%) ⁶⁵
Primary sector	22.2	1.6	48.9	4.1
Secondary sector	35.9	24.4	16.9	21.6
Tertiary sector	41.9	73.9	34.2	74.1

Source: own table based on Eurostat (2021a; 2021b) and World Bank (2021).

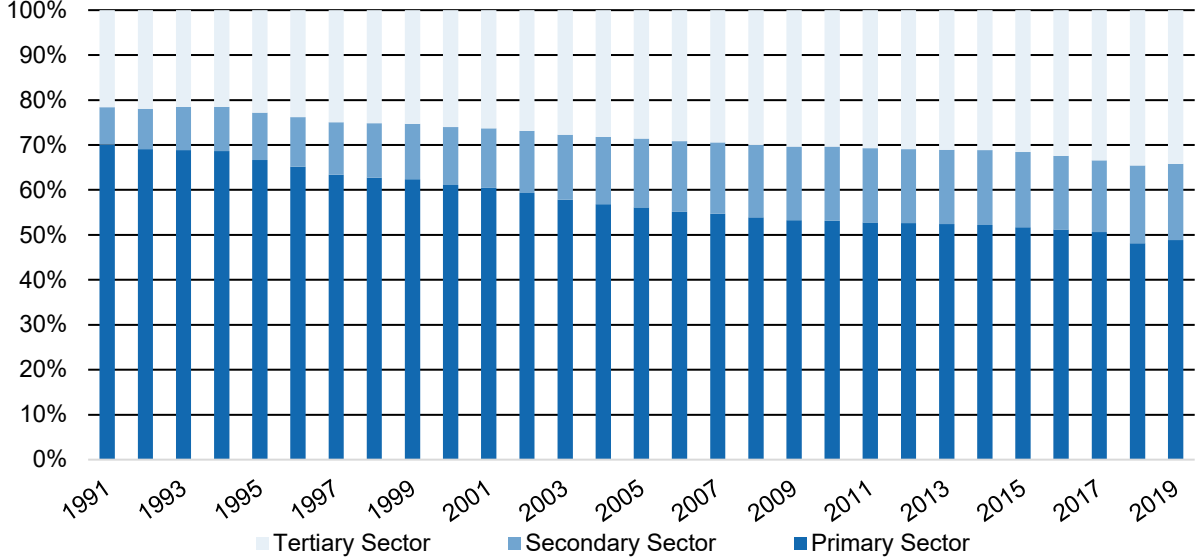
In the context of educational systems, a key aspect of the economic structure is the percentage of the labour force employed in the respective sectors. Figure 1 shows the steady decline of the share of Myanmar's primary sector in the country's employment statistics. The secondary sector has increased by 4 percentage points from 12.9% in 2000 to 16.9% in 2019. The tertiary sector also increased by 8 percentage points from 26% to 34.2%. While the primary sector's share of the workforce was reduced by 12.2 percentage points from 61.1% in 2000, there is still a strong dependence on this sector. Myanmar is strongly affected by climate change. It was the second-most affected country in the period from 1999 to 2018 according to the Global Climate Risk Index 2020. Natural hazards will remain a major challenge for its development, especially in regard to the high percentage of the workforce employed in the primary sector (Eckstein et al., 2019).

⁴ The Gini coefficient measures the extent to which the distribution of income in an economy deviates from a perfectly equal distribution, which would be equal to a coefficient of 0%.

⁵ Due to rounding differences, the sum of all sectors falls below 100%.

⁶

Figure 1: Employment by Sector (as a Percentage of Total Employment), 1991–2019



Source: own figure based on World Bank (2021).

In the World Economic Forum (WEF) Global Competitiveness Report 2015–2016, Myanmar ranks 131st of 140 countries on the Global Competitiveness Index. It is therefore the lowest-ranking country in emerging and developing Asia. The closest-ranked country from the region is Bangladesh in 107th place. Myanmar ranked 139th (out of 144) in 2013–2014 and 134th in 2014–2015 (WEF, 2015). Myanmar was not included in the more recent reports since the surveys were not completed to minimum requirements (WEF, 2016, p. 8).

Myanmar was included on the Global Innovation Index in 2020. It belongs to a group of countries which performed below the level of expectations for their individual level of development. Myanmar ranks 129th out of 131 countries covered by the index. While Myanmar ranks 83rd in knowledge and technology outputs, it is mostly ranked near the bottom of the index at 123rd in institutions, 107th in human capital and research, 115th in infrastructure, 127th in market sophistication, 131st in business sophistication and 130th in creative output. It is important to note that these values should be interpreted cautiously. Especially in the case of Myanmar, there is an interval width of over 20 positions, which is only true for six countries (Dutta et al., 2020).

1.2 The Labour Market

The first part of this section describes the general situation of Myanmar's labour market. The second part focuses on the youth labour market in particular.

1.2.1 Overview of the Myanmar Labour Market

With Myanmar's transition to democracy and economic opening, the country introduced various new labour legislation and amended existing laws from 2011 onwards. While this legislation covers various aspects of the labour code, its implementation is still incomplete or interpreted differently by different actors in the labour market. After years of suppression, the workforce is starting to organise itself. The labour union movement is still in its infancy, and most workers are engaged in various forms of informal work. While the 2008 constitution includes the right of every citizen to form associations and organisations, it remains unclear how these rights can be exercised after recent political events. Furthermore, Defence Services personnel, police and members of armed organisations under the Defence Services are not allowed to organise themselves (Tanaka et al., 2015; ILO, 2017).⁷

There are various challenges in terms of doing business in Myanmar. The World Bank Group's Doing Business project ranked the country 165th among 190 economies and selected cities in 2020. Myanmar was ranked especially low in the aspects of obtaining credit (181st), the protection of minority investors (176th) and the enforcement of contracts (187th). On the other hand, doing business in Myanmar is advantageous in terms of dimensions like starting a business (70th) and obtaining construction permits (46th). While Myanmar is more competitive in these last two aspects in comparison to the regional average in East Asia and the Pacific, the regional average country performs better in all other dimensions.

Following labour unrest in 2011, Myanmar introduced a minimum wage in certain sectors for the first time. Following the Minimum Wage Act in 2013, a national minimum wage was introduced on 1 September 2015. It is set at 3,600 Myanmar kyat per day or 450 kyat per hour (ILO, 2017). At its introduction, this was equivalent to approximately US\$0.35 per hour or US\$2.81 per day.

Table 3 shows Myanmar's labour force participation rate and unemployment rate by age in comparison to the average of the OECD members. Myanmar has a total labour force participation rate of 60.4%, which is lower than the OECD average of 72.8%. Myanmar also has lower youth participation of 45.3% compared to the OECD average of 48.1%. Both the OECD and Myanmar show higher participation rates for adults (25–64 years) than for the youth with 63.9% for the former in Myanmar and 78.4% as the OECD average. Unemployment rates in Myanmar are quite low compared to the OECD average. In 2019, Myanmar had a total unemployment rate of only 0.5%. While the youth experienced a slightly higher rate of 1.5%, the unemployment rate for adults only reached 0.3%. These rates are not only low in a worldwide comparison but also quite low by regional standards.

The same is true regarding the labour force participation rate and the unemployment rate by educational attainment. There is 65% participation in the OECD and Myanmar for people with less than upper secondary education. For the other two examined levels, Myanmar again has lower participation rates in comparison to the OECD average. In Myanmar, 63% of people aged between 15 and 24 years and with an upper secondary education participate in the labour market (80.8% OECD average). The same is true for the group with tertiary education with 70.5% participating in Myanmar and an 89% average in OECD countries. While the group with the highest education level has the highest participation level, there are also higher unemployment rates for this group in Myanmar at 0.8% in comparison to 0.18% for people with upper secondary education and 0.28% for those with less than upper secondary education.

⁷ All information in relation to Myanmar's labour market precedes the military takeover beginning 1 February 2021. It remains unclear to what extent existing laws are still in place and enforced.

While Tables 3 and 4 exhibit very low unemployment rates, it is important to note that there are only a few data points available over time. Universal conclusions and long-term observations are therefore difficult to make. Furthermore, it is important to take the nature of employment and the workforce into account. Myanmar's workforce is predominantly informal, and more than a third of the total workforce could be considered underemployed, working less than 44 hours a week (Tanaka et al., 2015).

Table 3: Labour Force Participation Rate and Unemployment Rate by Age in 2019

Age Group	Labour Force Participation Rate		Unemployment Rate	
	Myanmar	OECD average	Myanmar	OECD average
Total (15–64 years)	60.4	72.8	0.5	5.6
Youth (15–24 years)	45.3	48.1	1.5	11.8
Adults (25–64 years)	63.9	78.4	0.3	4.7

Source: own table based on ILO (2021a; 2021b).

Table 4: Labour Force Participation Rate and Unemployment Rate by Educational Attainment in 2019 (Persons Aged 25 to 64)

Education Level	Labour Force Participation Rate		Unemployment Rate	
	Myanmar	OECD average	Myanmar	OECD average
Less than upper secondary education	65.00	65.00	0.28	9.30
Upper secondary education	63.00	80.80	0.18	3.80
Tertiary education	70.50	89.00	0.80	5.40

Source: own table based on ILO (2021c; 2021d) and OECD (2021b; 2021c).

1.2.2 The Youth Labour Index for Low Income Countries

Dimensions and indicators of the YLILI

Transition <ul style="list-style-type: none">- Share of youth not in education, employment, or training (NEET rate)- Relative unemployment ratio- Youth skills mismatch rate
Working conditions <ul style="list-style-type: none">- Youth working poverty rate- Youth time-related underemployment rate- Share of youth in informal employment- Youth Vulnerable employment rate- Share of youth in elementary occupations- Share of youth in agriculture, fishery, or forestry
Education <ul style="list-style-type: none">- Share of youth with no secondary education- Youth illiteracy rate- Harmonized test scores
Source: (Kudrzycki et al., 2020)

Building on KOF Youth Labour Market Index (Renold et al., 2014), which primarily relies on high-income country data, Kudrzycki et al. (2020) proposed an **index for low income countries**. This index, which is the first to combine indicators specifically tailored to the realities of low-income countries, provides an assessment of individual countries' progress in addressing the needs of young workers. The YLILI helps to make a complex and multidimensional phenomenon more tractable by generating country-specific rankings that allow for comparisons across countries.

To construct the index, **12 youth-specific labour market indicators** were selected from three broad dimensions that best reflect the situation of the youth in the labour market: transition from education to the labour market, working conditions in the labour market, and educational background. The indicators were obtained from three reputable compilers of international data: the ILO, UNESCO and the Demographic and Health Surveys. The index score is calculated as the arithmetic mean of the three dimensions and is scaled to vary from 0 (dysfunctional youth labour market) to 100 (functioning youth labour market).

The transition dimension reflects the **quantity of employment** for youth and encompasses (1) the share of youth not in employment, education or training (NEET), which captures the share of inactive youth, (2) the relative unemployment ratio, which measure the degree to which unemployment affects young people more than adults and (3) the skills mismatch rate, which show whether unemployment disproportionately affects those with high or low education.

The working condition dimension captures the **quality of employment** and contains six indicators. The youth working poverty rate measures the proportion of working youth in poverty. The youth underemployment rate measures the share of employed youths who are willing to increase their workload. The informal employment rate captures the share of young people employed without contracts and/or social security. The vulnerable employment rate measures the share of own account workers and contributing family workers. The share of workers in elementary occupations measures the proportion of young workers in low-skilled basic tasks, which may require great physical effort and can carry a high risk of injury. Finally, the share of workers in agriculture complements the previous indicator, as jobs in agriculture are generally low-paid and labour-intensive.

Finally, the education dimension captures the **skill level of youth** and comprises (1) the proportion of youth with no secondary education, (2) the proportion of illiterate youth and (3) a measure of schooling quality in the form of harmonized test scores.

1.2.3 The YLILI for Myanmar

Myanmar achieved a YLILI-score of 66.65 out of 100, reaching 18th within the 48 ranked countries. Up to 82 countries were taken into account, but some had not enough data to be ranked. Myanmar ranked 18th in the transition ranking, which is in line with its overall score. In terms of working conditions, Myanmar is 28th. Problems relating to Myanmar's working condition or the labour market in general will be also discussed in later chapters of this factbook. Despite various problems with its education system, the country ranks 15th in the education ranking (Kudrzycki et al., 2020).

1.3 Myanmar's Political System

Understanding the basics of a country's political system and the political goals with respect to its education system are crucial points for understanding the education system in a broader sense. Therefore, Section 1.3.1 begins by presenting Myanmar's political system in general. Section 1.3.2 then focuses on the politics and goals of the education system.

1.3.1 Overview of Myanmar's Political System

The Republic of the Union of Myanmar achieved independence from the United Kingdom on 4 January 1948. While there were various attempts to establish democratic institutions, conflicts with ethnic or religious minorities and opposition to the military junta's influence led to repeated invalidation of elections and military takeovers. While the National League for Democracy (NLD) of Aung San Suu Kyi was able to win a majority of public votes in the country's 2020 election, the outcome was not recognised by the military junta, and the military again seized power in February 2021 (Croissant, 2016). The COVID-19 pandemic and the political situation in Myanmar led to the implementation of stay-at-home orders, curfews and bans on public gatherings (FDFA, 2021).

Prior to recent developments, Myanmar's political system consisted of a bicameral legislative authority—the Assembly of the Union (*Pyidaungsu Hluttaw*)—with a smaller House of Nationalities (*Amyotha Hluttaw*) with 224 seats and a larger House of Representatives (*Pyithu Hluttaw*) with 440 seats. It is notable that only three quarters of the seats were assigned by popular vote. The military regime appointed the remaining one fourth of the seats while also running for seats in the election with their Union Solidarity and Development Party (Encyclopaedia Britannica, 2021b; Croissant, 2016).

The World Bank's Worldwide Governance Indicators cover six different dimensions of governance. The countries' performance is ranked by their achieved percentile rank (0 to 100) among all countries. In all six dimensions, Myanmar ranks in the bottom 30th percentile. Myanmar was able to improve its performance in 2019 in voice and accountability (23.65), government effectiveness (11.54), regulatory quality (21.63), rule of law (12.98) and control of corruption (28.85). While there were positive developments in all five of these dimensions, the dimension of political stability and absence of violence/terrorism (11.43) remained constant. Myanmar also achieved a lower ranking in all indicators compared to the East Asia and the Pacific region (World Bank, 2020c).

The COVID-19 pandemic affected *The Economist's* 2020 Democracy Index, with the global average score reaching an all-time low. However, Myanmar experienced one of the greatest downgrades driven by mass voter suppression rather than restrictions resulting from public health concerns. Myanmar lost 13 positions in the global ranking compared to the previous year. Myanmar ranks 135th of 167 countries and is therefore positioned in the midfield of authoritarian countries. While there were improvements, especially after 2014, the score has stagnated over the last few years. Disenfranchisement of ethnic and religious minorities by the military and the NLD remains a problem (Economist, 2021).

In terms of corruption, Myanmar was able to make significant improvements between 2012 and 2020. The country was able to improve by 13 positions on Transparency International's Corruption Perception Index. However, with a score of 28, it still remains behind the regional average and is positioned 137th out of 180 countries (Transparency International, 2021).

1.3.2 Politics and Goals of the Education System

Myanmar's education system underwent a reorganisation in 2015 with the integration of the Department of Vocational Education and Training into the Ministry of Education (MOE). The responsibility for education lies mainly in the competence of national agencies. The TVET system is split at the policy level between the MOE and the Ministry of Labour, Immigration and Population (MOLIP) but remains highly fragmented with various other entities and ministries involved. With various ministries running their own TVET programmes and a decentralisation process with the involvement of private sector actors underway, the educational landscape of Myanmar is still undergoing changes (UNESCO-UNEVOC, 2018).

While there are various challenges in terms of organisation, financing and quality of education, the political situation has a tremendous impact on the education system as a whole. While the previous government announced a strategic plan on national education for the term from 2016 to 2021, it remains unclear to what extent its goals were achieved. While the military has reopened the schools, there are reports of intimidation and violence towards students and teachers. Ethnic conflicts have lasted decades, and recent developments unravelled the slight improvements made by the NLD government. The fact that Myanmar is the main language used in the education system is a major reason for the lower levels of education among and high exclusion of ethnic minorities. Internet outages and the already poor availability thereof in rural communities is hindering the process of "normalisation" due to the obstacles of online lectures as a result of the COVID-19 pandemic (San, 2021).

Myanmar's education system is highly centralised, and its success therefore depends on the political developments in the time to come. Whether the military regime will continue the path of the previous government remains unclear, but there are indications that this will not be the case. After the coups of 1962 and 1988, universities were closed to prevent protests and disturbances by students. This led to a backlog of students waiting to enter higher education and created an even greater lack of skilled workers (Encyclopaedia Britannica, 2021a).

2. Formal System of Education

2.1 Formal System of Education

The current political situation can be viewed as the major political challenge for Myanmar's formal system of education. Formal education is a state competence; however, especially in rural areas, community-based education, which is often fully independent from the government, plays an important role. Despite the democratic advances in the years prior to 2021, information about Myanmar's system of education is scarce. The formal state-run system is centralised and coordinated by the MOE. However, education in Myanmar is highly informal and decentralised, especially in rural and border areas. Community- or non-governmental organisations (NGO)-organised education programs cater directly to the needs of the local community and the labour market (Loong & Rinehart, 2019; UNESCO, 2010).

In the last decade, Myanmar has committed to improving and renewing its education system. The new Constitution of the Republic of Myanmar from 2008 built the foundation by providing the necessary legal framework. It grants the right of every citizen to education. Furthermore, it makes primary education free and compulsory. It also provides the government and policymakers with a mandate to implement a modern education system. As a first step in 2014, the National Education Law (NEL) was implemented and amended in 2015. The NEL focuses on strengthening the quality, effectiveness and efficiency of Myanmar's education system. Decentralisation of formal education and the expansion of basic education to kindergarten plus 12 years can be viewed as the two most prominent pillars of these reforms (MOE, 2016). Myanmar committed to investing in its education system and increased funding from 2011 to 2017 from 0.79 to 2.17% of the country's GDP (Chao, 2018).

Figure 2: ISCED Mapping

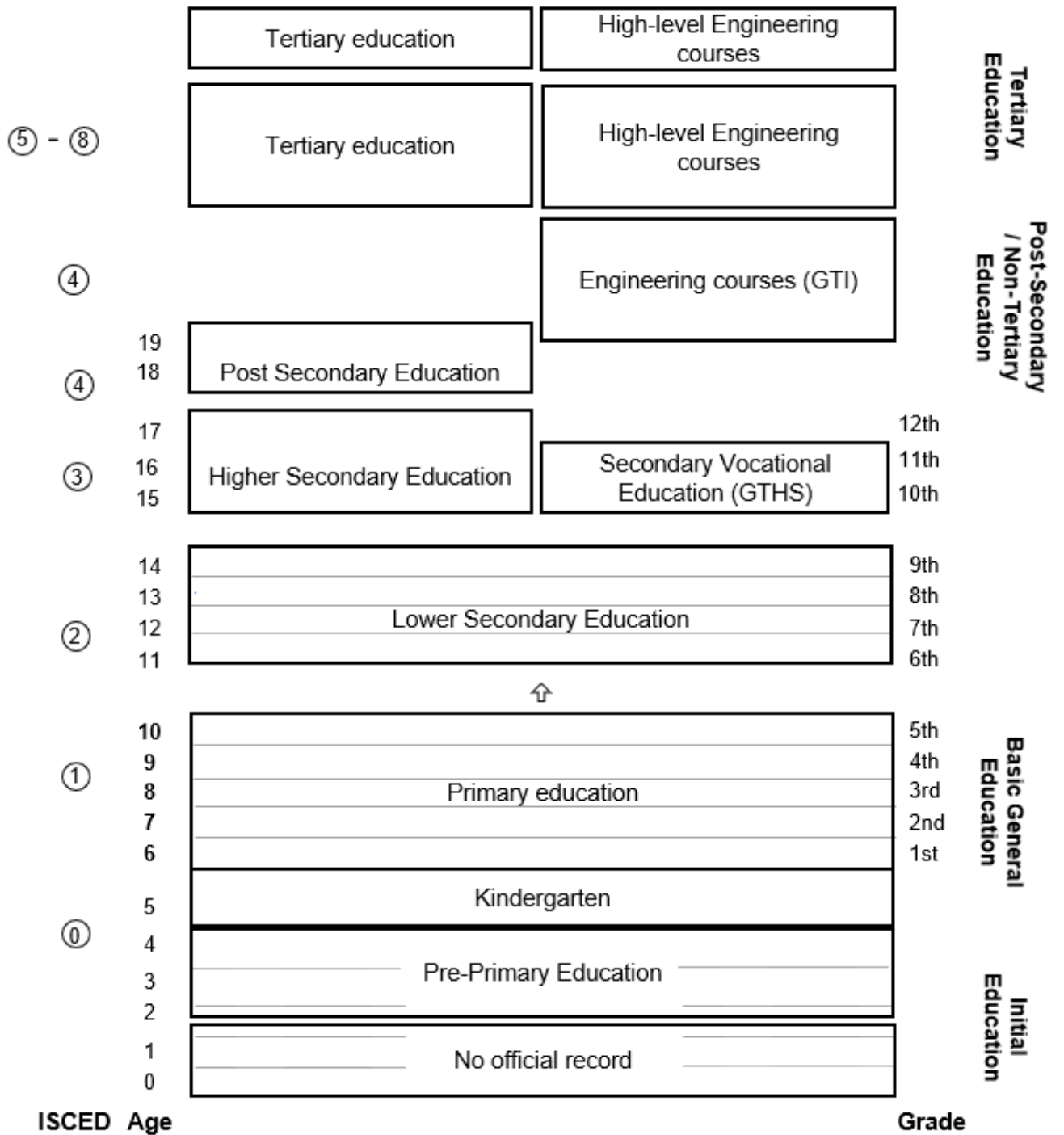


Table 5: Net Enrolment Rate and Gross Enrolment Rate

Education Level	ISCED 2011	Net Enrolment Rate	Gross Enrolment Rate
Primary education	1	98.1%	112.3%
Secondary education	2–3	-	68.4%
<i>Lower secondary education</i>	2	79.0%	75.6%
<i>Upper secondary education</i>	3	57.3%	54.4%
<i>Percentage enrolled in vocational secondary education</i>	2–3	0.7%	-
Post Secondary non tertiary education	4	-	-
Tertiary education	5–8	-	13.5%

Source: (UNESCO-UNEVOC, 2018), (World Bank, 2021).

Table 5 shows the gross enrolment rate (GER)⁸ and net enrolment rate (NER)⁹ by education level for 2014. The presented numbers are from years between 2012 and 2016. Because only a few data points are available and often only for single years, the table has to be interpreted very cautiously and only provides some overall orientation. The NER 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 of that age group. 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. For example, for the primary education level, the NER indicates how many students of 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 within the official age range to attend primary education.¹⁰

Limitations: The GER can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late entrants and grade repetition. In this case, a rigorous interpretation of GER requires additional information to assess the extent of repetition and late entrants.

While Table 5 shows especially high NER and GER figures at the primary level, it is important to note that those numbers are mostly single data points which do not enable a continuing interpretation of trends and developments. Furthermore, these official numbers seem not to be consistent with other observations in terms of dropout rates and attendance of pupils. More realistic estimation and reasoning about why those numbers should be used with caution can be found in Section 2.3. However, a NER of approximately 0.7% can be viewed as an indication that vocational education in particular is highly informal and not solely organised by the government.

2.2 Pre-Primary Education

Myanmar's Department of Social Welfare (DSW) has been operating various social welfare services and forms of pre primary education since 1953. While it is traditional for families to care for their children themselves, the demand for child welfare services is rising due to socioeconomic factors. Preschools have been opened for children aged two to five years. While there are public services run by the state, preschools are also run by nongovernmental and private-sector organisations. Leading ministries for early childhood care are the MOE and the Ministry of Social Welfare, Relief and Resettlement. Most

⁸ The UNESCO Institute for Statistics defines the gross enrolment rate 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.”

⁹ The UNESCO Institute for Statistics defines the net enrolment rate 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.”

¹⁰ A gross enrollment rate 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., having to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age range for primary education is actually enrolled.

services are located in urban areas around the country's major cities (AFEO, 2018; DSW, 2021a; MOE, 2016). According to a survey, in 2015, only 20% of children between the ages of three and five years were attending a form of organised early childhood education (UNICEF, 2021a). In 2006, nearly half (49.6%) of the attending children were girls. There are differences in enrolment rates by region, which can vary from 3% in Kayin state to 32% in Kachin. Socioeconomic factors and how rural an area is are major influences. Children from wealthy families are five times more likely to attend a form of pre primary education in comparison to the most disadvantaged families (UNESCO, 2010).

Early childhood care and education and preschool education are intended to nurture children physically, socially, mentally and spiritually. The DSW gives priority to poor children; children from remote, border and mountainous areas; children with disabilities; children from mobile families; and orphans. The average class size is approximately 30 children with two teachers for each class (UNESCO, 2010).

The country's basic education used to start with a year of kindergarten. While kindergarten education is normally considered part of pre primary education, Myanmar's education system organised its primary education in two cycles, with kindergarten being a dedicated part of primary education. The kindergarten curriculum directly reflected this fact, with kindergarten being closer to international grade 1 than actual kindergarten-level education (AFEO, 2018; MOE, 2016).

With the reform of the formal education system based on the New Education Law of 2014, this changed, and Myanmar now has one year of kindergarten which is separated from primary education and is no longer considered similar to international grade 1. The changes were introduced in the 2017/2018 academic year. The admission age for kindergarten is five years (not younger than four years and eight months at the beginning of the school year; AFEO, 2018).

2.3 Primary and Lower Secondary Education

By the beginning of the 2017/2018 academic year, Myanmar had introduced a revised structure extending primary education by an additional grade to five years and one year of kindergarten (Oxford Business Group, 2017). Those five years are compulsory and similar to the previous system's basic education with one year of kindergarten and four years of primary school (AFEO, 2018).

The actual form of a school may vary depending on the local community, especially in remote areas. While there are schools supported and supervised by the MOE, small rural communities in low-income areas are encouraged to initiate their own schools. The ministry promises them that the schools will gradually be converted into state-run schools, but the schools currently finance themselves mainly via fees, relying on the students' families. These schools limit the access to education for children of poorer and less privileged families. This gap is partially closed by monastic schools. In 2005/2006, the Department of Religious Affairs registered 1,174 such primary schools. Strengths of this form of education include the free access, the often excellent local language instruction (which is important in the case of minorities) and the fact that they widely offer free room and board. Monastic schools organise themselves and are not dependent on the state (UNESCO, 2010). Monastic schools are an alternative to state-run schools; nevertheless, they are not competitors in the field of education. They offer basic education catering to local needs. This often occurs in places without other education options. With the introduction of free basic education, school fees were abandoned. The importance of free education through monasteries for poorer societies therefore became less important. Nevertheless, these schools still play an important part in providing basic education in Myanmar.

While primary school attendance is compulsory, only 81% of children aged six to ten attended school in 2014. Reasons for this may vary. Fees are a primary cause of students dropping out (UNICEF, 2021a). This stands in clear contrast to NEL (2014) and its amendment (2015), which grants every citizen the right to free, compulsory education at the primary level (MOE, 2016). Limited quality and relevance of the offered education as well as socioeconomic factors are other reasons for students dropping out. While only children over the age of 14 are officially allowed to work, a family's economic hardship may force younger children to give up school and contribute to the family income (ILO, 2017; UNICEF, 2021a). Only 60% of children entering a primary school actually finish the cycle. Understaffed schools,

a lack of classrooms and limited or outdated working materials affect the quality of the education and influence the dropout rate, with pupils in rural areas being affected the most (UNESCO, 2020).

To counteract the high dropout rates, Myanmar completely replaced end-of-term and end-of-year examinations in the first two years of primary education. Pupils' maturity is tested with chapter-end tests and assessment of daily exercises. Promotion to a higher grade is mostly based on linguistic and mathematical skills. In grade 1, additional competences like social skills, attendance, further tests and participation in school activities are taken into promotion considerations. The curriculum of lower cycle primary education includes English language, Myanmar language and mathematics at the core, with general nature and social studies as supplementary contents. In grades 3 and 4, the three core subjects are complemented with basic science and social studies (including geography, history, morals and civics and life skills; UNESCO, 2010). At the end of primary education in grade 5, students must pass an examination of the core subjects (AFEO, 2018).

Secondary education comprises two cycles. Lower secondary education covers the four years from grades 6 to 9. By the end of the 1990s, a weekly lesson timetable included the following topics: Myanmar language, English language, mathematics, geography, history, general science, moral education, physical education, aesthetic education and participation in school activities. In contrast to primary education, up to eight chapter-end tests decide a student's promotion. Together with the chapter end-tests, a final Basic Education Middle School Examination at the end of the academic year decides promotion to higher/upper secondary education. This final examination covers all subjects taught including an assessment of the participation in school and community activities (UNESCO, 2010).

2.4 Upper Secondary Education

With the reform beginning with the 2017/2018 academic year, an additional 12th grade was introduced. The upper secondary level therefore includes grades 10, 11 and 12. This reform is a harmonisation to an internationally frequently used 12-year education system. Students entering high school are normally approximately 15 years of age in grade 10 (Oxford Business Group, 2017).

Upper secondary education introduces elective subjects in combination with the three core subjects of Myanmar language, English language and mathematics (UNESCO, 2010). The elective subjects are separated into two majors with geography, history and economics for arts students and chemistry, physics and biology for science students (AFEO, 2018). While technical and vocational education and training (TVET) is also part of upper secondary education, there is more in-depth analysis of this part of formal education in the third chapter.

At the end of their upper secondary education, students have to pass their Basic Education High School Examination (matriculation) at least three weeks before their university entrance examination (matriculation examination) occurs (UNESCO, 2010).

TVET can also be a part of upper secondary education. This topic is analysed in depth in Chapter 3.

2.5 Postsecondary and Higher Education

The higher education system in Myanmar is organised under the management of the MOE. The institutions are often controlled by ministries which control the economic sectors in which students would normally be employed after graduation. Despite historical high centralisation and little independence for individual higher education institutions, up to 13 different ministries were involved. The NEL of 2014 defines independence and self-administration (institutional autonomy) as key pillars for future development. Despite the prevailing centralised structure, there are two universities of distance

education which have 14 and 128 branches, respectively, in different regions of Myanmar to increase accessibility of higher education in addition to traditional institutions (Chao, 2018).

Students were granted access to higher education through their marks in the national matriculation examinations prior to 2018. Otherwise, students were limited to participating in distance education programs. New admission processes were implemented as a pilot program at 11 different universities at the beginning of the 2018/2019 academic year. The aim of the new process is to give the universities authority in the selection process which they did not previously have (Chao, 2018; Phu, 2018).

Despite the fact that with the increase in funding for education, government expenditure for higher education has also increased, its share in total educational expenditure decreased from 19.12 to 11.28%. This might be based on the recent initiative to offer free basic education, which has led to a higher demand for funds for primary education. Salaries are the largest part of these expenditures, constituting 78% of total higher education expenses. Similar to other levels of education, private institutions offer programmes in higher education. Nevertheless, there are no officially recognised private institutes for higher education (Chao, 2018).

A majority of students in Myanmar study either arts and humanities (37.45%) or natural science, journalism and information (31.40%; UNESCO, 2021). Except in engineering, manufacturing and construction with a share of 40.48% female students, there is a gender imbalance in Myanmar's higher education system. Arts and humanities has the highest share of female students among all fields of study at 66.14% (Chao, 2018).

2.6 Continuing Education (Adult Education)

There is only very limited information available regarding continuing education in Myanmar. Despite the lack of official state-run continuing education programs, there seem to be various community-based or NGO-run programs. Such programs often cater to the needs of the local communities like reintegration training programmes for people returning from other regional countries (UNESCO-UNEVOC, 2021). With the socioeconomic reality presented in previous chapters, the limited offers for adult education can be partially explained, particularly by the large share of employees in the primary sector and many people being underemployed.

2.7 Teacher Education

Teacher training in Myanmar happens at education colleges. The MOE estimated that in the academic year 2005/2006, 97.7% of all primary teachers were certified. It is estimated that slightly fewer secondary teachers were certified to national standards with a rate of 93.8%. Students have to successfully complete a one-year program to be awarded a Certificate of Education which enables them to teach at the primary school level as a primary assistant teacher. A second year of education is needed for a student to receive the Diploma in Teacher Education. This diploma certifies the student to teach at the lower secondary level. If teachers have at least one year of experience at the primary school level, they can be promoted to junior assistant teachers. For students with a bachelor's degree in any field besides education, a one-year education competency training course is needed in addition to the field experience requirements to be able to become a primary assistant teacher or junior assistant teacher. At the postgraduate level, it is possible to receive a diploma in teaching for a one-year course. Furthermore, two-year master's degree programmes and doctoral degree programmes are offered (UNESCO 2010).

In-service training programmes are offered in addition to teacher education for aspiring teachers. Such programmes aim at reducing the share of teachers without teaching qualifications. These programmes include college- and township-based teacher training as well as distance education programmes. In six

months in the first two programmes, primary and secondary school teachers learn developmental and psychological aspects of children, theories of learning, lesson preparation, teaching methodologies, development and proper usage of teaching aids, assessment and evaluation techniques, remedial measures for slow learners and teaching pedagogy. Teachers can be awarded their certificate or diploma after they pass a final examination (UNESCO 2010).

Diploma holders can apply at the country's two institutes of education for further training. A one-year programme leads to the award of a Bachelor of Education degree, which is followed by a two year master's degree in education. Applicants for the master's degree have to take an entry examination. Teachers with a Bachelor of Education degree are certified to teach at the upper secondary level (ISCED level 3), while postgraduates are certified to teach at the postsecondary level (ISCED level 4; UNESCO 2010).

3. The System of Vocational and Professional Education and Training

With the democratic transition and the path out of economic isolation in the last decade, Myanmar also underwent economic growth. One of the greatest challenges for further development is the education of the workforce. Only approximately 2% of the working-age population was able to obtain any sort of training during their lifetime. It is critical that human capital be strengthened and further develop its potential. (ILO, 2018). A further development of Myanmar's economy and a shift away from the primary sector is only possible if the country is able to provide skilled workers to the labour market. In the short term, this means mainly higher costs and further investment in education. The benefits of human capital investment will only appear eventually if investment in TVET is sustainable and long term.

Myanmar separates its vocational and professional education and training (VPET) system into formal and non-formal programmes. The MOE is responsible for formal skill development while the MOLIP organises the non formal programmes (UNESCO-UNEVOC, 2018). Non Formal programmes are not part of the national formal education system. While they can still be organised by state entities, they are often shorter than formal programmes and could also be considered as forms of skill development which are sometimes not considered part of vocational education and training (VET). It is important to note that non formal programmes are still fully recognised by the state, and graduates may receive official certificates even if those are organised by private education providers. In contrast, informal education programmes are privately run and not officially recognised.

There are 480 public training institutions and an estimated 800 to 1,000 private training providers offering TVET at various levels (SEA-VET, 2021). Public training institutions cover the whole range from drop-out students at the basic education level to tertiary education (UNESCO-UNEVOC, 2018). Public training institutions are affiliated with various ministries which finance them. Private training institutions may have various backgrounds. They can be locally based and funded community centres providing education from locals for locals. Other possibilities are internationally organised and funded programmes from NGOs, government-run development programmes or other players involved in international development initiatives. All institutions have in common that they independently make decisions about their curriculum without a national framework to coordinate vocational education.

3.1 Vocational Education and Training (VET; Upper Secondary Education Level)

The formal VET system in Myanmar begins after the completion of grade 9.. Students can then attend a government technical high school (GTHS). They attend a two-year programme which has similarities to general high school, especially in terms of general subjects, and three complementary technical subjects. Students graduate with a formal certificate enabling them to either continue their education at technical institutes at the post secondary non tertiary level or a government technical institute (GTI) or join the workforce (UNESCO-UNEVOC, 2018; SEA-VET, 2021). Nevertheless, if students cannot attend a GTI, they can also take the matriculation examinations to attend universities and colleges like high school students (Bai & Wu, 2019).

Students attend specialised and general subject courses for 15 hours per week (an annual total of 600 hours). The general subjects or public courses are Myanmar language, English language, mathematics, physics and chemistry. The GTHS-specific specialised courses are architectural engineering, electrical technology, electronic technology, automotive repair technology, mechanical processing technology, refrigeration and air conditioning technology, metal processing technology and information technology. The general subjects are compulsory for all students. Students complete their curriculum with a certain specialised course depending on their interest or future career plans (Bai & Wu, 2019).

General subjects are studied for two hours each as theory classes with either one hour of tutoring for Myanmar, English and mathematics or one hour of practice classes for physics and chemistry. The specialised courses are based on three to five hours of theory classes and up to 12 hours of practice classes at the school's workshop. In the case of electrical technology students, there is also one hour of tutoring similar to the language and mathematics classes. Students who finish the GTHS can either directly enter the workforce or continue their education at a GTI. After finishing their courses, students receive a certificate (Bai & Wu, 2019).

The 36 GTHSs in Myanmar are only a fraction of the VET possibilities (Garnizova & Milio, 2014). Far more common are non formal TVET programmes from private institutions or through public-private partnerships (UNESCO-UNEVOC, 2018). Non Formal TVET can take various forms but is not part of Myanmar's formal education and curriculum. The difference from informal education is that non formal education can be organised by the state and is, if privately organised, recognised by the state as an official education programme. An important provider for non formal vocational education is the Center for Vocational Training (CVT) in Myanmar. CVT is a Swiss association which is registered as an NGO in Myanmar. Founded in 2002, the CVT introduced the Swiss and German method of dual vocational education to Myanmar. Compared to formal government education, the CVT collaborates with companies, enabling on-the-job training in addition to scholarly education (CVT, 2021a). The NGO offers five different apprenticeships: business and communication, electrician training, future technician training, hospitality professional training and metal technician training. Like at the GTHSs, students study general subjects and specific job-related subjects. The on-the-job training enables additional job-related training which might be difficult to teach in a classroom environment. Furthermore, companies pay the students during their training, which is not the case at GTHSs. Students work five days per week at their companies and spend a sixth day at school. Similar to the Swiss system, there are annual two-week practical training courses. Students graduate with a "certificate of professional capacity" which is well known and recognised in Myanmar (CVT, 2021b; UNESCO-UNEVOC, 2018).

In addition to non formal education, Myanmar has various informal training providers. The need for informal training possibilities mostly arises due to inefficiencies in state-run facilities, insufficient capacities or a general lack of training for certain trades. From companies to registered or unregistered NGOs, there is a wide bandwidth from basic training courses for school drop-outs to reintegration training programmes, work-based learning in small workshops and in-company training for specific tasks (SEA-VET, 2021; Garnizova & Milio, 2014; UNESCO-UNEVOC, 2018).

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

Students can continue their education at a GTI after they have finished their secondary education at the GTHS. It is also possible for normal high school students to enter a GTI. GTHS students have to reach a certain average score while high school students have to sit and pass a college entrance examination. Similar to GTHSs, a GTI's purpose is to prepare students for the labour market. There are approximately 22 different GTIs around the country. In addition to three-year academic courses, these institutes offer short-term training. Bai and Wu (2019) identify 13 different short-term courses in construction, electric and electronic training as well as business and IT subjects.

The GTI three-year academic courses usually offer civil engineering, electronic engineering, electric engineering, mechanical engineering and information technology as majors. The first year comprises one of these subjects as a major and the general and public courses already introduced at the GTHSs. For the second year, only English and mathematics are taught in addition to the major course. Students finishing GTI can either enter the labour market or continue their studies at a polytechnic university, which they can also attend via distance learning (Bai & Wu, 2019). It is reported that approximately 40 to 50% of the curriculum is practical (Garnizova & Milio, 2014). Each semester includes a theory examination counting for 30 to 40% of the total score (Bai & Wu, 2019).

3.3 Regulatory and Institutional Framework of the VPET System

In the case of Myanmar, there is little difference in organisational structure between VET and professional education and training (PET). Therefore, the following sections do not draw a distinction between the two and instead analyse the TVET system as a whole.

3.3.1 Central Elements of TVET Legislation

The current TVET legislation is based on the Constitution of the Republic of the Union of Myanmar from 2008. Articles 28 and 366 build the foundation with the implementation of free and compulsory basic education, the right to education and the mandate to implement a modern education system. The NEL from 2015 and the NEL Amendment from 2015 build on this foundation. In terms of TVET, these laws further clarify the access to education and categorise it into four levels (SEA-VET, 2021).

- **Basic level of education:** The basic level of TVET covers education after the successful completion of primary school.
- **Middle level of education:** After completion of lower secondary education, students can enter the middle level.
- **Diploma level:** The diploma level is the last part of the formal TVET system and can be accessed after successfully finishing higher secondary education.
- **Non Formal education:** The non formal TVET builds the fourth pillar of TVET. It covers all government programmes which are not part of formal TVET and officially recognised, private education programmes.

The TVET part of the MOE is regulated under the much older Technical, Agricultural and Vocational Education Law No. 4 of 1974. The main objectives cover the national need for skilled workers in the transition to a more industrialised economy, the need for sophisticated domestic agricultural production and an education in line with the political nationalist agenda. Because there were only two amendments in 1983 and 1989, respectively, a new bill was drafted prior to the 2015 national elections. While the political situation at the time was in favour of a new TVET law, this law was not put forward until the summer of 2021 (SEA-VET, 2021). This law is important because the MOE is the single most important ministry in terms of TVET. The Employment and Skills Development Law (ESDL) completes the central elements of legislation. Even though it was promulgated in 2007, the ESDL is still waiting to be fully implemented. It intends to regulate skill development for workers already in the workforce or for those who are about to enter it. The new law is expected to resolve the issue of the lack of harmonisation

between the ESDL and the TVET law of 1974 and clarify open questions and uncertainties (SEA-VET, 2021).

The recent changes to the education system with the implementation of the NEL, the incomplete establishment of the ESDL and the recent political turmoil are further discussed alongside deeper analysis of the current state of the TVET legislation in Chapter 4.

3.3.2 Key Actors

Government

While up to 15 different ministries are involved in technical and vocational training, the MOE and the MOLIP are the responsible actors at the policy level. Every ministry organises its own specific training (UNESCO-UNEVOC, 2021). Since 2015, the Department of Technical and Vocational Education and Training has been the responsible department within the MOE which oversees the 36 GTHSs and 22 GTIs. These schools and institutes provide the country's formal vocational education (SEA-VET, 2021).

Representation and Advisory Bodies

There are reports that up to 80% of business owners did not know about the country's TVET system. Furthermore, less than 1% of businesses interviewed by the German Institute for Development Evaluation stated that they have worked with a TVET institution (DEval, 2016). While domestic companies seem to have little influence on the TVET system, there are international advisory bodies. These bodies can be one-time, temporary contracts with NGOs or foreign development government agencies or be part of long-term projects like the later-mentioned industrial training centres (ITCs).

Education and Training Providers

The limited influence of formal TVET on the country's education system leads to additional private institutions which are of importance. Myanmar's MOE cooperates with various international partners not only in teaching but also as consultants for reforms and policy discussions.

A. Industrial Training Centres

In addition to the institutes run by the MOE, the Ministry of Industry (MOI) is the second most important ministry in terms of TVET. The MOI runs six ITCs supported by different international partners (UNESCO-UNEVOC, 2018). The involved countries are Germany, China, South Korea and India. They offer one-year non academic courses in agricultural fields and in the heavy industry. The mainly practical courses (70% of the curriculum) aim to provide trainees with the skills needed for them to be a part of national, agricultural or industrial development (Bai & Wu, 2019).

B. Centre for Vocational Training

As previously mentioned, the CVT is a Switzerland-oriented organisation founded in 2002. Experts from Switzerland assist and consult with the local staff in their free time. The CVT provides three different types of training programmes. The first aims at people who either cannot attend secondary school or have dropped out of it. The Education for Youth programme offers them an opportunity to develop the skills necessary for their entry into the labour force. The second type of training, VET, has already been covered by previous subchapters. The Continuing Education Program completes the CVT's programme. It offers courses for in-company trainers to provide them with skills and expertise. Second, it certifies teachers in vocational education, and finally, it offers a programme to assist young entrepreneurs in Myanmar.

C. Singapore-Myanmar Vocational Training Institute

The Singapore-Myanmar Vocational Training Institute was founded in 2016 as a cooperative programme between the two governments. Myanmar provides the equipment and facilities for the institute while it is managed by an educational institution from Singapore. The Singapore-Myanmar

Vocational Training Institute offers 10 six-month training projects. The 10 projects are courses in electrical technology, electronics, general welding, mechatronics, building fixtures and equipment, residential air-conditioning, retail operations, restaurant operations, housekeeping operations and front office operations (Bai & Wu, 2019). All programmes consist of four modules. In the case of the electrical technology course, the modules are electrical principles, electrical installations, electronics principles and applications and electrical appliances and special installations (SMVT, 2021).

3.4 Educational Finance of the VPET System

In 2019, Myanmar spent 10.3% of the country's total expenditures on education. This sum is distributed across all ministries involved in education. The MOE, which is the most important ministry in terms of education, received an estimated share of 8.42% of the 2019/2020 budget. The MOE's budget shows steady growth in funds from 5.3% in 2014/2015 up to the recent 8.4%. These values also correlate with nominal and real value growth in funding over those six periods. The majority of this budget is used for basic education. The department within the MOE that is mainly responsible for TVET accounts for only 6.8% of the ministry's budget. The current expenditure for TVET is estimated to be 1.6% of the education budget and 20% of the capital expenditure for education. While the TVET systems only receive a small fraction of the total education budget, they are one of the strongest growing departments within the MOE (MOE, 2020).

With the NEL in 2014, free basic education was introduced. Previously, approximately 60% of the education budget was paid by private households. This rate is steadily decreasing due to higher funding. Foreign aid and grant receipts constitute up to 5% of the MOE's funding, with the Asian Development Bank (ADB), Switzerland and Germany being the major donors. With the NEL, Myanmar aims to eventually reach a budget allocation of 20% for its education system, which it intends to reach by small annual increases. A national target of 20% would be comparable to high-tier regional countries like Thailand, Singapore, Indonesia and Malaysia (MOE, 2020).

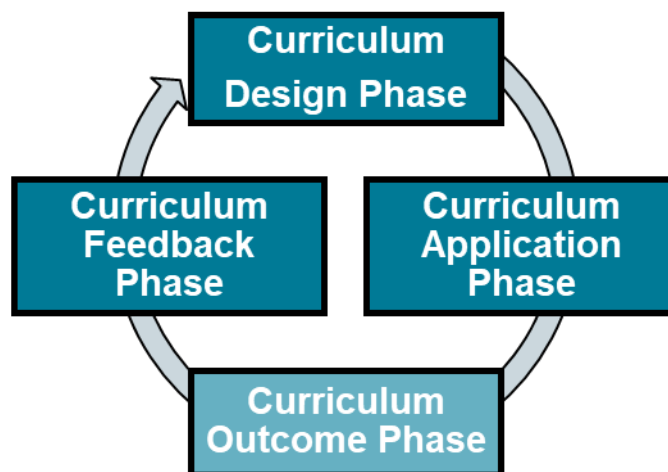
The funds used for pay, allowance and honoraria of staff is approximately 75% of current expenditures. This is not only true for TVET but also for basic education. The remaining 25% have to cover the remaining costs like facilities and teaching materials. This leads to constraints within the financial possibilities and adversely affects the quality of education (MOE, 2020; UNESCO-UNEVOC, 2018).

Additional financing for TVET is foreseen by the ESDL of 2013. A specific workers' skill development fund shall be funded by employers from industry and service sectors. On a monthly basis, the payments would be between 0.5 and 2% of workers' wages or salaries (UNESCO-UNEVOC, 2018).

3.5 Curriculum Development

Curriculum is a central element for the functioning of a VPET system because it defines the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with curriculum design, curriculum application and curriculum feedback phases. This theoretical concept is called the curriculum value chain and is depicted in Figure 6 (for more details, see Renold et al. 2015; Rageth & Renold, 2019).

Figure 3: Curriculum Value Chain



Source: Renold et al. (2015) and Rageth and Renold (2019).

In the curriculum design phase, the relevant actors decide upon VET curriculum content and qualification standards. Therefore, the discussion in Section 3.5.1 focuses on the degree and amount of stakeholder participation concerning curriculum design in Myanmar. The curriculum application phase revolves around the implementation of the curriculum because learning environments differ substantially across countries, especially with respect to the prevalence of workplace learning. Specifically, the curriculum application phase addresses where learning occurs 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. Section 3.5.3 focuses on the curriculum feedback phase. This evaluation process is important because it may render a more refined curriculum design than was initially possible.

3.5.1 Curriculum Design Phase

The design phase is crucial for the whole curriculum process. To ensure that the 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 content of the curricula.

Information about Myanmar's curriculum is extremely scarce. In particular, the processes after the introduction of the new education law remain very unclear. All of the up to 15 involved ministries have their own curriculum. Ministries planned to introduce competency-based curricula. For example, Singapore Polytechnic International was training people in designing such curricula. Prior to the latest reorganisations of the education system in 2014 and 2015, industry stakeholders had no influence in the design phase (Garnizova & Milio, 2014). Past implementations of training programmes did not lead to a reevaluation or update of existing curricula (SEA-VET, 2021). It was planned that a board of national accreditation and a quality assurance committee will accredit all future curricula and a national curriculum committee will then approve them (SEA-VET, 2021).

Myanmar's former government tried to implement stronger management of their TVET system. The National Education Strategic Plan saw this as a major strategy involving better monitoring, data collection and analysis as well as further research into the demands and skills needed in the labour market and from other stakeholders. Additional establishment of public-private partnerships was intended to strengthen the connections among the stakeholders. The strategy was planned to be implemented by the end of 2021 (MOE, 2016). It remains questionable whether the current military regime will continue with the same vision and how much of the implementation was completed prior to 2021.

3.5.2 Curriculum Feedback Phase

The curriculum feedback phase addresses the questions of whether and how educational outcomes are analysed. Based on this, the curriculum could be reworked and improved.

Myanmar just fully implemented its new education system prior to the COVID-19 pandemic. Because the curriculum had never changed, there was no need for a feedback phase for formal TVET. It is expected that with a new law, a national curriculum committee will be established which will also be in charge of quality controls. Without a new ratified law, it remains unclear whether and to what extent other stakeholders will be taken into account. For the time being, the responsible ministries for each part of TVET are fully in charge of their curriculum, its design, possible changes and the eventual feedback phase (SEA-VET, 2021). Whether external stakeholders will be involved relies solely on the individual ministry, but in many cases, such involvement is unlikely.

3.6 Supplying Personnel for the VPET System (Teacher Education)

Informal and nonformal systems employ various kinds of teachers. From fully local teachers to internationally trained teachers and even foreign teaching staff, there are different requirements and educational paths for teachers. Despite the organisation at the ministry level of state-run education, there are no standardised frameworks or teacher training programmes. As with curricula, all involved ministries have their own systems and training programmes.

For the more formal education, teachers can be classified into three different groups. TVET schools under the MOI employ technical TVET teachers. They require an engineering degree like a bachelor's degree or master's degree or a TVET certificate and an additional six months of work experience in their specific occupation (Euler, 2018).

The second and third groups are teachers under the MOE. Integrated TVET teachers require at least a bachelor's degree and training at a technical promotion training centre (Baelin). Finally, TVET instructors need a GTI or ITC/GTHS diploma with additional training courses at a technical promotion training centre (Baelin). Furthermore, the MOE is the leading ministry to provide additional teacher training. It offers short-term training courses of four to ten weeks that cover competencies in mechanical, electrical, civil or electronic subjects. There are also various courses for teachers of GTI and GTHS schools such as pedagogic and learning methods and technical skill-based training (Euler, 2018; SEA-VET, 2021).

The German Society for International Collaboration (GIZ), an external service provider for international collaboration in terms of sustainable development, is an example of external training of teaching and training personnel. Because there are no domestic training programmes for school managers, GIZ previously offered a programme to train and support school managers and middle management personnel within ministries. Because there are no standards or regulations for in-company training, GIZ also collaborated with the Union of Myanmar Federation of Chambers of Commerce and Industry to create pilot training courses in accordance with the ASEAN standard for such trainers (SEA-VET, 2021).

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

4.1 Major Reforms

Myanmar's history of education is closely connected to its political system. The temporary discontinuation of higher education in the 1990s is an example of the political importance of education for an authoritarian regime. Major education reforms like the New Education Law in Myanmar are strongly dependent on the national government and its direct interests. Challenges and reforms are therefore strongly connected in Myanmar. After the new constitution of 2008 and the country's economic opening process, new education laws were needed to support the change.

After its independence in 1948, Myanmar had one of the highest levels of education in the region. With the civil unrest and as a result of underinvestment, the level of education declined. While the formal system relied on a quantity of certificates and diplomas and not on the quality of its programmes, the gap between the courses offered and the industry's demand widened (Garnizova & Milio, 2014).

The introduction of free and compulsory basic education with the New Education Law had an impact on formal TVET in terms of basic education being a requirement to enter formal TVET (UNESCO-UNEVOC, 2021; Bai & Wu, 2019). This has the potential of increasing accessibility to the TVET system.

Besides the first steps of a new legal framework, which have been described in various chapters of this factbook, the introduction of a national qualifications framework had an impact on the TVET system and will probably have an even greater impact in the future. Myanmar's National Skills Qualification Framework is based on the ASEAN Qualifications Reference Network. Of the eight levels, four are thought to be of relevance to TVET. While the framework was introduced in 2015, official approval is still pending (UNESCO-UNEVOC, 2021). The levels are intended to describe the skills, knowledge and ability of a worker with a certain certificate (SEA-VET, 2021). Once fully in place, they would partially co-ordinate and harmonise the skill levels between the various ministries involved in relation to their education programmes, enabling a comparison between different curricula and better understanding for employers about a potential employee's educational background. If a person finishes training with a specific occupational competency standard, a national certificate shall be awarded. This framework would especially be important for the non formal system with its high number of involved stakeholders (UNESCO-UNEVOC, 2018).

Table 6: Myanmar's National Qualifications Framework with Relevance for Technical and Vocational Education and Training

Level/Job Level	Basic Education	TVET
4		Certificate 4/supervisor
3	High school	Certificate 3/advanced skilled worker
2	Middle school	Certificate 2/skilled worker
1	Primary school	Certificate 1/semi skilled worker

Source: own table based on (UNESCO-UNEVOC, 2021).

Furthermore, the National Education Strategic Plan 2016–21 verbalised three strategies with regards to TVET (MOE, 2016, S. 44 f). All three touch on various points of the major challenges in the next chapter. The strategies are as follows:

- “Expanding access to TVET for various target groups including disadvantaged populations and people with disabilities”: Myanmar relies on an increasing amount of skilled labour to continue its path of economic growth. Expanded access enables talents to enter education and later the workforce that otherwise would have been excluded from the system.
- “Strengthening the quality and relevance of TVET”: If the education provided has no relevance for the industry, the value of a TVET programme remains minor. It is important that the curriculum meets local needs and graduates achieve the desired levels of education.
- “Strengthening TVET management”: The previous two points can only be achieved if all involved actors work together. Stronger TVET management enables coordination among the various stakeholders and might improve the relevance of the country’s TVET system.

All strategies are to be implemented by the end of 2021. Whether this goal can be achieved remains highly questionable. Since the current government has terminated the internet presence of many of its ministries, the actual state of the National Education Strategic Plan cannot be verified.

4.2 Major Challenges

Major challenges in Myanmar’s TVET or VPET can be divided in two categories: first, challenges in relation to the education system as a whole and its financing, organisation, relevance and general structure, and second, the systemic challenges related to the national political turmoil.

Prior to 2021, the most urgent challenges were the following (ADB, 2013; Bai & Wu, 2019; MOE, 2016; Garnizova & Milio, 2014):

A. Accessibility: Currently, only relatively few students have access to formal TVET. Especially in rural areas, education is only provided by a few ministries, mainly the Ministry of Agriculture. A wide range of courses is only available for students in large cities. To meet the labour market’s need for skilled labour, capacity increases are vital.

B. Enhancing quality: Ensuring sustainable, high-quality education is critical to expand the access to TVET and improve its relevance in the national context. Regularly updated curricula and teaching materials are needed to continue improving TVET. Additionally, institutional standards that apply across the various ministries involved are lacking.

C. Low efficiency: Reported opening hours from 9:00 AM to 3:30 PM at state-run TVET institutions further limit the capacities of the system. This point closely relates to the issue of funding limitations described below.

D. Demand-driven education: TVET can assist the country in its economic development and has the potential to positively influence youth unemployment. It is therefore crucial that education caters to the needs of the local industry and other involved stakeholders. If it is of little benefit for companies to employ graduates, the system will continue its shadowy existence among various locally and internationally organised educational institutions.

E. Funding: Scarce financial possibilities with salaries representing the largest factor in the budget hinder further development. Outdated materials and infrastructure paired with limited investment possibilities stand in contrast to the pursued quality improvements. This is especially true for state-run, non formal TVET.

F. Integration into the workforce: Students only attend practical lessons at their own school. Even though students may learn crucial skills related to their future field of work, actual work experience is not part of the curriculum.

G. Co-ordination: Myanmar is in need of national coordination of its TVET system. Cohesive legislation and a national framework for TVET as a whole is still lacking. The decentralised nature of TVET can lead to confusion among stakeholders, reducing the impact of formal TVET.

The current political situation remains tense with unclear implications for the national education system. COVID-19 pandemic responses can hardly be separated from political restrictions on education. There have been reports of military personnel occupying schools and committing acts of violence against and suspending thousands of teachers (UNICEF, 2021b). In addition, many student deaths are among the at least 780 deaths caused by the security forces, with other students and teachers being searched or detained for charges of incitement (Reuters, 2021). In the future, political stability will be crucial to ensure continuing and sustainable development of the education system.

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Appendix I: Overview of the VPET system

VET pathway enrolment share out of all upper secondary (%) (2016)	0.7% (UNESCO-UNEVOC, 2018)
Program enrolment share out of all VET pathway (%)	n/a
Number of curricula/qualifications	15 different ministries involved with their own curricula (UNESCO-UNEVOC, 2018)
Ø Share of time spent in workplace (vs. classroom)	n/a
Work contract (Yes/No)	No
Ø Share of vocation-specific content (vs. general) in classroom education	n/a
Classroom/workplace sequencing (Alternating, Sequentially)	n/a
Frequency of workplace learning (Annually, Semi-annually, quarterly, monthly, weekly)	n/a
Program duration (Years)	GTHS 2 years and GTI 3 years, with various non-formal programmes from a couple of weeks up to 3 years.
Involved Actors	The two main ministries responsible for formal TVET in Myanmar are the MOE and MOI with 13 different ministries organising programmes in their specific sectors.
Reform Years	New Education Law in 2014 with an amendment in 2015
Reforms Summary	Ongoing reform with introduction of free basic education as basis for TVET.

(UNESCO-UNEVOC, 2018; Bai & Wu, 2019; MOE, 2016)

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