

# 8

## Myanmar Technical and Vocational Education Training System and Policy Reform

Cho Tin Tun Kirkpatrick

### 1 Introduction

The government of the Republic of the Union of Myanmar, the people, academia, officials from other countries, many international non-governmental organizations (INGOs), and non-governmental organizations (NGOs) such as the UN, UNESCO, and the ILO have addressed the importance of Technical Vocational Education and Training (TVET) in Myanmar in creating skilled labour that corresponds to the current trend in economic growth. Government officials have agreed that Myanmar's education has been moving in the right direction, but there have been some impediments to the implementation of policies, rules, and regulations. All have agreed that improvements are still needed in the implementation of policies for the TVET system to be sustainable. During an interview in 2015, TVET specialist Robyn Jackson at UNESCO Myanmar agreed that the pressing issue for the expansion of

---

C.T.T. Kirkpatrick (✉)

Nova Southeastern University, Fort Lauderdale, FL, USA

TVET in the country is the lack of coordinated response to and regulation of skills development. There is no overarching policy or clear direction for TVET, and the current legislation is either very outdated or covers only part of TVET, as in the Employment and Skills Development (ESD) Law. Establishing a policy and legislation framework is urgently needed, as are the supporting governance, coordination, and information systems.

Many policy reforms have been under way since the previous government, U Thein Sein's administration (2012–2016), came into power. Specifically in the education sector, modifications and implementations of rules and regulations affecting the Myanmar economy in the direction of attaining ASEAN Economic Community (AEC) goals have been placed into effect. Beginning with a Comprehensive Education Sector Review (CESR) in 2012, the National Education Law 2014 was established. The Technical and Vocational Education Council for the implementation and enforcement of policy framework, TVET Task Force for quality assurance (QA), National Skills Standard Authority (NSSA), National Skill Development Authority (NSDA), and National Qualifications Framework (NQF) are a few additional authorities established under the reform to support the Myanmar TVET system. CESR and the National Education Law 2014 are noteworthy because they are the foundation of TVET reform and the draft law.

Rest of the chapter is written as follows. Section 2 carries a comprehensive review of the education sector. Section 3 discusses the TVET and human resource development (HRD; HDI). Section 4 analyses the TVET. Section 5 presents the policy recommendations, whereas conclusions are briefed in Sect. 6.

## 2 Comprehensive Education Sector Review

CESR, established in 2012 with three project phases, has a vision to develop an education system that promotes a learning society capable of facing the challenges of the knowledge age and that helps to build a modern developed nation through education. Establishment of CESR in 2012 is followed by the formation of Education Promotion Implementation Committee (EPIC) in 2013 by President U Thein Sein. Working

together, the aim of CESR is to develop recommendations for reform of the education system where EPIC is to draft policies for the implementation of educational reform, with a key focus to develop an overarching framework for education—the National Education Law. Initiated in 2014, implementation of Myanmar education reform will continue with a five-year realization timeline (2015–2020).

The review is to help ensure that there is a full and comprehensive understanding of the current status of education in Myanmar, regarding access and quality across the sub-sectors, as well as current strengths and gaps in policy, capacity, management systems, financing, and partnership (CESR 2014). Phase 1 of CESR, Rapid Assessment (Volume 1), addressed these concerns and system-wide policy issues for education sector reform. This phase also provides a foundational analysis for the second phase of CESR, the In-Depth Analysis. Phase 2 begins with an analysis of educational system and good practices in Myanmar and other countries. Issues like the role of education in peace building, increasing education access for all groups in society, enhancing quality education, and relevance of curriculum are addressed. The key feature in phase 2 of CESR is the recommendation for improving management, planning, and monitoring specific to the TVET system. Phase 2 (2012–2014) will support phase 3 of CESR, the implementation of priority reforms, and the assessment of realistic policy options to form the basis of a cost-effective strategic education sector plan. Project plan for phase 3 will take a ‘2+5’ format with a two-year plan from 2014 to 2016, followed by a five-year plan from 2016 to 2021 to fit the government planning cycles. These, in turn, have the potential to address the challenges and greatly accelerate progress towards the realization of Myanmar’s education and socio-economic goals (CESR 2014). The Multi-Donor Education Fund (MDEF) has been established to accelerate CESR progress towards achieving the Millennium Development Goals on basic education in Myanmar. Phase 1 development partners contributing to MDEF are ADB, Aus Aid, Denmark, DFID (UKAid), the European Union, GIZ, JICA, Norwegian Embassy, UNESCO, UNICEF, and the World Bank.

## 2.1 The National Education Law

The Myanmar TVET system has been identified as supply driven, developed without consultation and partnership with industry partners. In order to compete in the growing ASEAN economic market, Myanmar is in need of linking its TVET system with local and regional employment needs. The National Education Law (2014, Parliamentary Law No. 41) was created under the administration of U. Thein Sein in September 2014 with a transition period of five years. Aspects of law related to the TVET system are noted below:

- By definition, technical and vocational education falls under formal education (Chapter 1. (j). National Education Law).
- In the implementation of a system of national education, the government will use (a) formal education, (b) non-formal education, and (c) personal education and make connections between them (Chapter 5.11. System of National Education).
- TVET has been divided into the following (Chapter 5.21. System of National Education):
  - (a) Basic-level technical and vocational education that can be attended by those who have completed primary school.
  - (b) Middle-level technical and vocational education that can be attended by those who have completed middle school.
  - (c) Diploma-level technical and vocational education that can be attended by those who have completed high school.
  - (d) Non-formal education and vocational education for improving ability regardless of educational level, gender, or age, offered in schools opened by government or private organizations that meet the criterion.
- Qualification requirements for TVET teachers will be spelled out in separate education by-laws (Chapter 9.51. Teachers).
- MoE and other relevant ministries shall work in improving teachers' qualifications and to provide them international experience (Chapter 9.52. Teachers).

- (a) At every level of education there shall be a programme of QA.
- (b) In the assessment of educational quality and standards, there shall be a programme of internal quality assessment and external quality assessment.
- (c) The Commission shall establish the standards and methods of evaluation in order to ensure quality (Chapter 10.54. Quality Assessment and Quality Assurance).

The CESR consents that TVET institutions in Myanmar are deficient. According to CESR, the three main concerns in TVET have been (i) access, (ii) quality and relevance, and (iii) management. The coordination between skills development and the changing job market; relevant curriculum; inadequate infrastructure; recruitment, training, and retention of quality vocational teachers; QA; entry criteria for TVET training; and confidence in the qualification are also affecting the success of the Myanmar TVET system and should be addressed in policymaking. The main emphasis in the TVET reform in Myanmar essentially needs to be on the development of policies to produce skilled labour that is competent with AEC. Thus, after in-depth literature review and content analysis, the discussion section of this study provides an overview of the TVET draft law and provides options for further improvement of the Myanmar TVET system.

### **3 Technical and Vocational Education Training and Human Resource Development**

Technical and Vocational Education Training (VET) has been globally accepted to improve HRD, especially in developing countries. As the economy of ASEAN countries continues to flourish and grow stronger, development focused on human resources rather than depleting natural resources is recommended to maintain a sustainable economy. At the Conference on Development Policy Options with special reference to Education and Health in Myanmar 2012, Vijay Nambiar,

Under-Secretary-General and Special Advisor to the UN Secretary-General, stated that sustainability is politically feasible, economically beneficial, socially viable, and environmentally necessary.

Myanmar is ranked 148 out of 188 countries and territories on the Human Development Index (HDI) in 2014. This represents a value of 0.536 (UNDP, Human Development Report 2015). According to the same report, the country had an HDI value of 0.334 in 1980; since then, Myanmar has been maintaining an average annual increase at about 1.40 per cent. This trend symbolizes a fast-growing economy where HRD, which provides multiplier effect in stimulating the economy, is necessary.

The Myanmar TVET system began in the colonial period with an intention of closing the skilled labour gap by training skilled workers for specific labour market. The training system was successful and well acknowledged by the local labour market for about two to three decades (Tin Htoo Naing 2016). However, due to political transformation over a long period, the TVET system of Myanmar was forgotten until the recent policy reformation. The vision and mission of the Ministry of Education of Myanmar is to promote a ‘learning society capable of facing the challenges of the knowledge age’ and helping to build ‘a modern developed nation through education’. As the country transforms its economy into industrialized economy, a supply-driven TVET system becomes necessary.

TVET in the Myanmar education system is in many different forms including the government, NGOs, INGOs, private institutions, and developmental agencies at both bilateral and multilateral levels. The system has already experienced several changes through different Myanmar governments. Previously, the Ministry of Science and Technology (MoST), now part of the Ministry of Education (Science and Technology), was the main regulatory body of TVET. The Ministry of Labor, Immigration, and Population, formerly known as the Ministry of Labor, Employment, Social Security (MoLESS), has also been a significant part of the vocational education system through ESD Law enacted in late 2013.

UNESCO recognized that quality technical and vocational training plays an important role in tackling youth unemployment. According to the 2014 Myanmar Housing and Population Census, young people

represent 28 per cent of total population.<sup>1</sup> Myanmar has a constant youth unemployment rate with 9.4 per cent in 1991 and 9.5 per cent in 2014 (World Bank Data 2014, ILO). This unemployment rate is considered high compared to a few ASEAN countries that share similar geographic location and economic growth: 6.3 per cent for Vietnam in 2014, 3.9 per cent for Thailand, 3.4 per cent for Laos (Laos PDR), and the lowest rate of 0.9 per cent for Cambodia.

UNESCO-UNEVOC has recognized that young people lack basic foundational skills, resulting in difficulty in finding a decent job or becoming self-employed. In OECD countries, unemployment among young people, who have not completed secondary school, is nearly twice as high as among those with tertiary degrees (Scarpetta and Sonnet 2012). A mismatch in skills affecting the unemployment rate especially for the youth has been observed in many developing countries by organizations such as UNESCO and the ILO. A smooth transition from education-to-work has been an ultimate goal in closing this employment gap.

As a result of changes in the Myanmar education system over the past few decades, the country is in a unique position transitioning its youth from education-to-work. Myanmar youth who are educated within international standards are overly educated and qualified for local employment. This population typically migrates overseas for further education or employment, creating a brain drain situation. Meanwhile, the underqualified youth remain skill-less and add to increasing youth unemployment rates.

UNESCO plays an active role in providing advice and technical assistance to the Myanmar government. The organization is a coordinating point for TVET aid, engaging with other government agencies and prospective, current donors, development partners, and, most importantly, the private sector. The PepsiCo, UNESCO, and the Myanmar Ministry of Education signed a public-private vocational training partnership in 2014. It is the first public-private partnership (PPP) for TVET in Myanmar. The programme offers industry-responsive vocational training courses targeted to enhance youth employability. The programme has successfully launched a second phase in August 2015 aiming to provide industry-focused programmes to improve the skill-sets of graduates

**Table 8.1** Youth unemployment rate (percentage of total labour force aged 15–24) in the EU, Latin America, and ASEAN Countries (modelled ILO estimate)

Region	Countries	Youth unemployment rate in 1991	Youth unemployment rate in 2014
<b>EU Countries</b>	<b>Germany</b>	<b>5.5</b>	<b>7.6</b>
	Austria	3.7	9.2
	Netherlands	11.1	11.1
	Czech Republic	4.8	16.7
	United Kingdom	14	16.7
	EU Area	18.2	27.6
	France	19.2	23.9
	Poland	25.2	24
	Slovak Rep.	19.8	31.1
	Spain	29.8	57.9
	<b>Latin America</b>	<b>United States</b>	<b>5.5</b>
Brazil		14.2	15.2
Mexico		5.3	9.9
Chile		17.9	16.4
Argentina		12.2	21.3
Colombia		23.1	18.9
Venezuela, RB		17.5	17.1
Costa Rica		11.6	19.2
Honduras		7.8	6.9
World		13	14
Brunei Darussalam		12.3	11.1
<b>ASEAN</b>	<b>Vietnam</b>	<b>5</b>	<b>6.3</b>
	Thailand	6.7	3.9
	Indonesia	17.6	21.8
	Singapore	7.3	9.6
	The Philippines	17.3	16.4
	Malaysia	9.1	6.7
	Laos (Lao PDR)	4.8	3.4
	<b>Myanmar</b>	<b>9.4</b>	<b>9.5</b>
	Cambodia	1.2	0.9
Brunei Darussalam	12.3	11.1	

Source: World Bank Data, International Labor Organization, Key Indicators of the Labor Market database

entering the local workforce. Further, the Strengthening Business Skills for Youth Employment in Myanmar programme is another initiative to bridge the youth unemployment gap through TVET. Table 8.1 presents youth unemployment rate in three regions of the world.



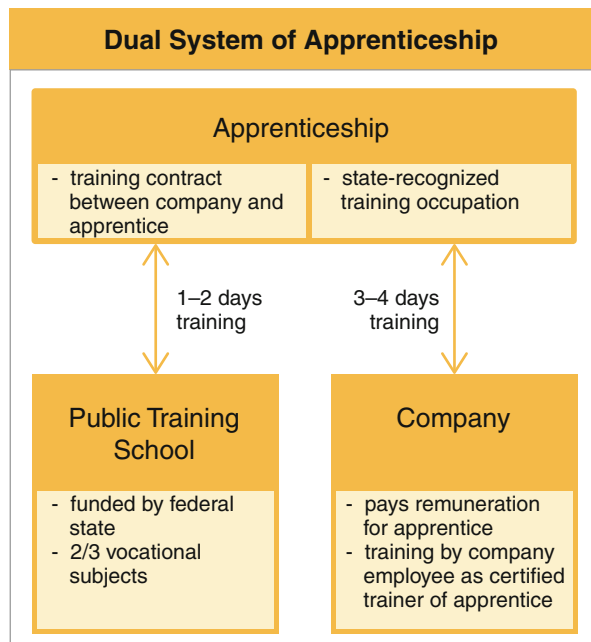
## 4 Technical Vocational Education Training

Three education models have been analysed to offer TVET policy options to the Myanmar government (Milio et al. 2014; Ministry of Education (MoE) 2017; Ministry of Education (MoE) – Draft Law 2016). The German model also known as the dual apprenticeship has been selected due to its success. The US model was chosen because of its linkage between secondary and post-secondary vocational programmes for better transition from school to careers. Another reason to choose the US model is that the strategic goals for vocational education in fiscal year (FY) 2011–2014 focus on lifelong learning opportunities for youth and adults with access, quality, and completion of TVET education as the most important factors. Lastly, the Vietnam model has been selected due to its similarities with Myanmar with a belief that analysis of the Vietnam TVET system will allow Myanmar to position its reform in the right direction. Other TVET models such as Thailand, Cambodia, and Laos LDR were considered but not chosen.

### 4.1 The German Model

The Vocational Education Training (VET) is a fundamental part of education and training system incorporated into German economy. It is well known as a ‘dual system’ because training takes place both in public training schools and in the partnership organizations and businesses. The strong partnership with social partners such as the Federal Government, Federal States, industry employers, and Chamber of Commerce/German Confederation of Skilled Craft has provided major success. This demand-driven system has been recognized domestically and internationally due to its proven success. According to data from the Federal Statistical Office 2013, the workforce in Germany by Level of Professional Education (2012, in percentage of total workforce) indicates that the majority of the country’s workforce has received high qualifications through the dual VET system.<sup>2</sup> The in-house training provided by the German companies transforms apprentices into customized specialists at low net costs (German Trade & Investment 2014). The German Federal Ministry of Education and Research outlines VET regulatory framework as follows:

The Federal Government acts as a recognition body for trainings, sets requirements for training and examinations, and sets training regulations. The Federal State, which issues curricula for part-time vocational schools, is also responsible for financing teaching staff and supervision of chamber activities. Under the industry, employers are responsible for creating and updating training occupations, nominating experts for training regulations, and negotiating provision in collective agreements such as remuneration. Lastly, the Chamber of Industry and Commerce/German Confederation of Skilled Crafts advises stakeholders in training, supervises training in the company, verifies the aptitude of companies and training instructors, registers training contracts, and administers examinations (Germany Trade & Invest 2014). Funding is provided through the Federal State. Figure 8.1 indicates workings of dual VET system in Germany.



**Fig. 8.1** Dual system of apprenticeship (Source: Germany Trade & Invest, DIHK, Federal Ministry of Education and Research, IAB, Federal Statistical Office 2013)

## 4.2 The US Model

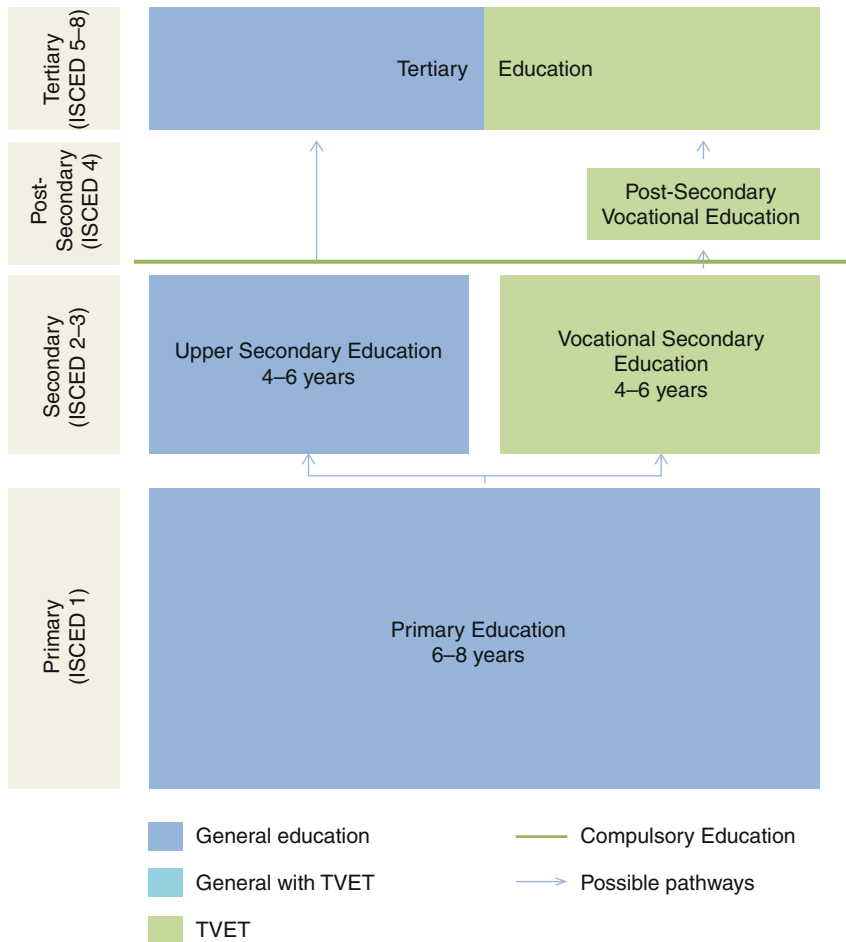
TVET is commonly recognized as Career Technical Education (CTE) in the United States. The federal TVET mission is to promote education about work, for work, or education through work (UNESCO-UNEVOC World TVET Database USA 2014). Access, quality, and completion have been the strategic goals as in Strategic Plan FY 2011–2014.<sup>3</sup>

Each of the 50 states in the country is individually responsible for customization of CTE through student learning and creation of a demand-driven system. Administered by the Federal Department of Labor, the Office of Apprenticeship and the Job Corporations govern government-supported skill training outside the education system. Funding is handed at all three levels of government: (i) Federal, (ii) State, and (iii) Local. Office of Vocational and Adult Education is a unit under the US Department of Education that is responsible for implementation of federal TVET legislation.

TVET teachers in the United States hold at least a bachelor's degree in the subject area with some industrial experience or professional certification to further support their teaching credentials and career. According to the Bureau of Labor Statistics' Occupational Outlook Handbook for Career and Technical Education Teachers, some competencies required for TVET teachers include communication skills, creativity, instructional skills, organizational skills, and patience.

The United States does not have an NQF. However, QA for the American CTE programmes is at the federal, state, national, and regional level. Accrediting agencies, professional and academic disciplinary associations also have influence in assessing the quality of CTE programmes. TVET system in the United States takes place as formal, non-formal, and informal systems. Figure 8.2 provides an overview.

The formal TVET system is associated with the National Career Cluster and has an enrolment of 12.5 million with most students in the programme over 18 years of age, who have completed grade 12 or K12 (World TVET Database, United States of America 2014). American high school graduates are given the choice of entering into a technical or vocational institution, two-year community or junior college for an



**Fig. 8.2** Overview of US CTE (Source: UNESCO-UNEVOC (2014). Scheme compiled by UNESCO-UNEVOC from U.S. Department of Education (2011))

associate degree, or four-year college or university for a baccalaureate degree. The associate degree programme is typically for two years, and is transferrable and serves as a foundation for the two more years of baccalaureate degree. Others are in the form of (i) Tech-Prep, which applies vocational and technical courses; (ii) Career Pathways (CPs), which prepares students for several different occupations; (iii) federal programmes

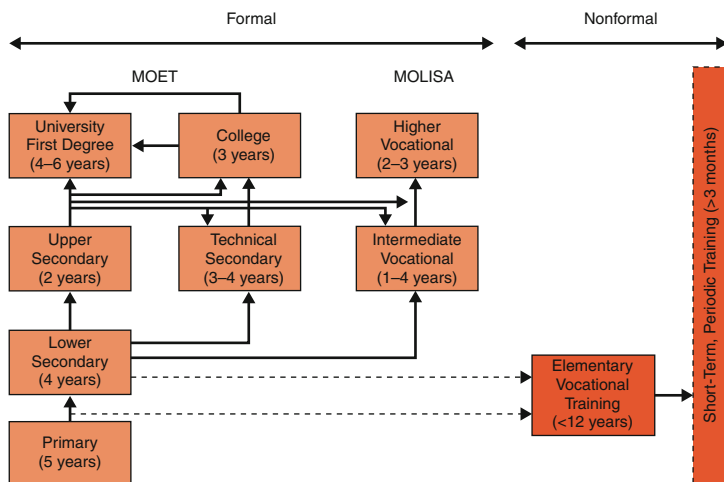
such as The Job Corps that targets the at-risk youth; and (iv) The Job Accommodation Network, which targets youth with disabilities.

The non-formal and informal TVET systems are Apprenticeship Programmes. This business-based system targets candidates with industrial experience and is typically offered as an employer-owned or employer-operated facilities or trade schools. The community and technical colleges are the major part of the Apprenticeship Programmes. The American Talent Development, formerly known as the American Society for Training and Development, is another organization developing the knowledge and skills of employees and the workforce in a competitive labour market.

### 4.3 The Vietnam Model

Vietnam's TVET system has two parts, public and private system. There are multiple agencies administering the system with various organizations taking ownership of the public training institutions.<sup>4</sup> The central ministries and organizations, central government, local government, and the State manage vocational trainings at the college level, intermediate level, and elementary level. The dual structure for TVET has institutions under the Ministry of Labor-Invalids and Social Affairs (MOLISA) and the Ministry of Education and Training (MOET). Under the MOLISA, elementary vocational training is delivered partly through vocational training centres, intermediate through vocational secondary schools, and higher via vocational colleges. Short-term vocational training, technical secondary schools, and technical (professional) colleges function under MOET (Asian Development Bank 2014). The four levels under these two organizations are (i) bachelor's degree, (ii) college level, (iii) secondary level, and (iv) elementary level. Further under these two organizations, the Vietnam TVET system is divided into formal and non-formal training (short- and long-term). The main difference between technical secondary and vocational secondary schools is in structure of curriculum; the first offers 40 per cent practice and 60 per cent theory, while the latter offers 70 per cent practice and 30 per cent theory. Further, graduates from technical secondary school are able to enrol for colleges and universities, whereas vocational secondary school students cannot. Figure 8.3

## Structure of the Technical and Vocational Education and Training System



MOET = Ministry of Education and Training; MOLISA = Ministry of Labour–Invalids and Social Affairs.  
Source: Ministry of Labour–Invalids and Social Affairs (MOLISA).

**Fig. 8.3** Structure of TVET in Vietnam (Source: Asian Development Bank (ADB), Manila (ADB 2014))

represents the structure of TVET in Vietnam (World TVET Database – Country Profile: Vietnam 2014).

The Vietnam TVET system has a multilevel, multi-track training system that offers flexibility. Lower-level training is provided by higher-level institutions; college, secondary, and elementary-level trainings are provided by universities; intermediate-level vocational training and frequently, elementary trainings are provided by colleges; and more elementary-level courses are offered by vocational secondary schools. Specialization of skills is also provided by many institutes in sectors such as agriculture (forestry, fisheries, and horticulture), transport, construction, and industry. Training period varies from 3 to 12 months in the elementary and two to four years in the secondary colleges.

Private TVET system has been established in Vietnam since the late 1990s, which gained more popularity in the recent years. Rules and regulations for private training centres are flexible with a degree of control. In order to maintain quality standards in the TVET system, this sector follows an identical registration and screening process as well as curricula

framework. Each institution determines its own tuition fees. There is also no requirement for a set number or percentage of scholarships for needy students. The Vietnam government is in favour of growth in this sector. According to the draft TVET Strategy 2020, private training provision is expected to increase from 20 per cent of enrollees in technical secondary schools to 40 per cent by 2020 (ADB 2014).

Public institutions and training centres receive funding and infrastructure through the government, and individual private investors sustain the private system. The government has increased funding of education and training by 20 per cent, 6.4 per cent of GDP in 2011, which is in accordance with other middle-income countries (ADB 2014). As per the Vocational Training Law, educators teaching theory at the intermediate or college level require a bachelor's degree and instructors in practical subject must have at least a college diploma, or be an artisan in the subject area. According to the General Directorate of Vocational Training (GDVT), in 2011, 21 per cent of TVET teachers specialized in theory, 33 per cent in practical subjects, and 46 per cent in both with a trend shifting towards 50–50.

QA and system accreditation is under internal and external assessment. A number of different systems from Australia, the Republic of Korea, the United Kingdom, and Germany are being implemented to enhance the Vietnam government's efforts in implementation and policy reformation. Additionally, there is Vocational and Technical Project by ADB, the Nordic Development Fund, the French Development Agency, and Japan International Corporation Agency (JICA). There is no national examination for assessment and certification for TVET at this period; however, GDVT is introducing a National Occupational Testing. The National Skills Standards and Certification promotes quality and relevance of the country's TVET system.

#### **4.4 The Myanmar Model**

TVET mission of Myanmar aligns with the nation's goals towards the development of nation-building knowledge and the training of technicians, skilled workers, and proficient individuals with practical knowledge

so that they can contribute to state and nation-building endeavours (UNESCO-UNEVOC World TVET Database, Myanmar 2014). Since 1998 education reforms, Myanmar TVET strategies have been focused on socio-economic development: decentralization of ministries, promoting lifelong learning, skills development for employability, and creation of a credit system. In a way, the Myanmar TVET system is similar to that of Vietnam's and the US model (see Fig. 8.4).

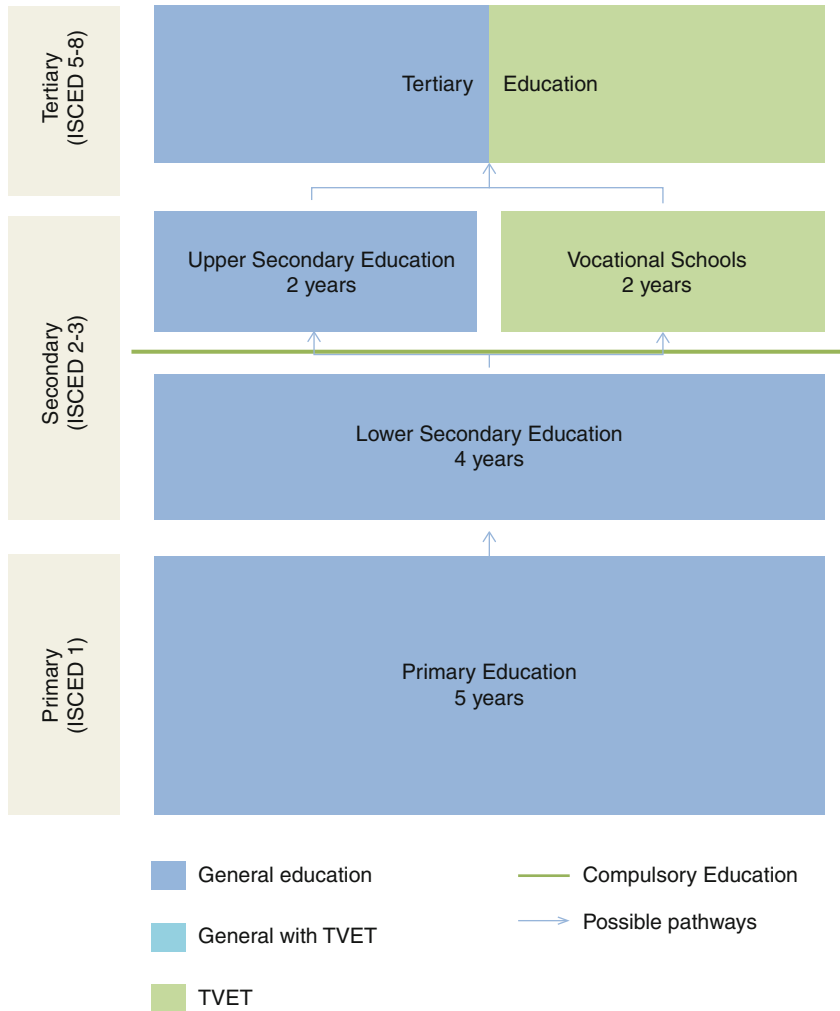
The Myanmar TVET system comprises formal and non-formal or informal systems. The formal education system has been under reformation in the direction to meet international standards. The length of basic education system has been increased to five years of primary education and six years of secondary schooling. Bridging the gap between the worlds of school and work has been the primary focus. It aims to reduce unemployment rates by creating skilled labour.

Vocational subjects and trainings are offered through vocational schools, technical high schools, or agricultural high schools. Trade schools are shorter with flexible evening schedules to accommodate working individuals. Post-secondary TVET courses are offered in the field of mechanics and electronics through the Ministry of Industry. Completion of the programme allows students to complete a Basic Education High School Examination that permits further studies into Government Technical Institutes (GTIs), State Agricultural Institutes, or Commercial Schools. In developing skilled labour, graduates of secondary schools are encouraged to enrol in a technical college or university. These institutions offer an associate degree under the GTI after two years, a bachelor of technology (B.Tech) after four years, and a bachelor of engineering after five years.

The non-formal or informal TVET system in Myanmar is underdeveloped and underdocumented. Programmes sponsored by NGOs are targeted to sub-population groups in developing specific skills for employment. The Myanmar Educational Research Bureau has been in charge of the sector although a reform has been under way.

Under the different political systems and policy regimes, especially at the present, the Myanmar government has been in favour of promoting many different TVET institutions and training centres. The structure of the Myanmar TVET system is centralized in management and financing,





**Fig. 8.4** Myanmar’s TVET (Source: UNESCO-UNEVOC-TVET database, Myanmar. Scheme compiled by UNESCO-UNEVOC from UNESCO-IBE (2011))

but appeared to have a decentralized structure at the same time. Budget for TVET institutions comes almost exclusively from their respective ministries, and no delegation of authority to the state or region level is practised (DWT for East and South-East Asia and the Pacific 2014). The

current funding for education in Myanmar has been inherited from the previous government under U Thein Sein's administration (March 2011–March 2016). During that period, state spending on education had observed a positive shift from 0.7 per cent of GDP in FY 2011–2012 to 2.1 per cent in FY 2013–2014. This spending is still below the 3.6 ASEAN average. The state allocated education budget from the previous government will be in effect until school year 2016–2017. Quick budget solutions such as increasing short-term spending in education have been considered by the National League for Democracy.

TVET sponsored by NGOs, INGOs, and developmental agencies at both the bilateral and multilateral levels is funded by UNESCO, the Japan International Cooperation Agency, the Australian Aid Agency, the British Council, and the United Kingdom Department for International Development. Clearly, the private education sector is funded by investors and sustained through high tuition fees. Individual investors provide capital, land, salary for teaching staff, and other resources including classroom expenditures. Myanmar has seen growth in private institutions beginning 2012. PPP in vocational education has been highly encouraged to produce skilled labour force to complement Myanmar's economic growth.

## 5 Policy Recommendations

Myanmar is currently facing several challenges in the TVET sector reformation. Some of these are:

- (i) Access: Majority of Myanmar population that is about 70 per cent of the population lives in the rural areas with no access to any educational facilities. This complex nature of geographic, which spreads over 33 townships and diverse population that uses more than 100 languages, is difficult to reach to meet the goals of Education for All (EFA). Additionally, some discrimination against ethnic minorities exists in the education system limiting access. With a history of community-based schools getting closed by the government, minorities are forced to go to state-run schools that do not

teach in native tongue hindering access to education and thereby increasing dropout rates. Under TVET, entry criteria for selection to enter formal education are rigid. Requirements such as high examination results and appropriate age prevent most Myanmar youth from gaining access to TVET training.

- (ii) **Relevance and Quality:** TVET system in Myanmar has been determined as demand driven instead of supply focused. Lack of coordination between skills development and the job market has left many youth in the country unemployed. Since training is not relevant to the skills needed of the community or region, lifelong learning and sustainable TVET education system does not exist. Therefore, there is no quality in the Myanmar TVET system.

Pedagogy of teachers complicates this problem. Many teachers for TVET are not well trained in subject area with little or no industrial experience and skills. Additionally, there is still a shortage of teachers for the Myanmar TVET system.

- (iii) **Management:** Myanmar has a fragmented TVET system. It is complex with many ministries taking responsibilities for different fields, which lack central body for control. MoST was mainly responsible for activities of TVET; however, as of early 2016, this ministry has been placed under MoE. With the changes in the Myanmar government, execution of policies is a major concern. Existence of overarching policies is quite limited. There have been major delays in implementation of rules during the period where no time should be wasted, especially in TVET to produce skilful labour for closing the education-to-employment gap.
- (iv) **Infrastructure and equipment:** The challenge on infrastructure and equipment of TVET system is rather forthright. There are no up-to-date training facilities; equipment available is out of order or not sufficient; up-to-date technology to stay competitive for on-the-job-training is unavailable; and there is inadequate school infrastructure (overcrowding of facilities).
- (v) **Other factors:** Myanmar learning culture represents a rote learning system. Traditionally, students memorize materials provided by classroom teachers in order to pass standardized exams. Basic

education has been considered valuable with the view that vocational schooling is less worthy. There has been lack of trust on vocational certifications with a view of institutions being ‘certification factories’. Non-existence of nationally recognized or regulated set of qualifications for TVET makes it harder to obtain high enrolment. Students’ attitudes are not engaged in learning where high dropout rates exist in the Government Technical High Schools, Government Technical College, and GTI.

Under the new government in July 2016, a 14-chapter draft policy for the Myanmar TVET system was prepared to provide proper guidance. This draft policy option tries to solve challenges faced by the TVET system.

## 5.1 Access

Chapter 3 of the draft TVET policy states the basic law and regulations with the promise of EFA and the right to education. The responsibility of curriculum development has been assigned to individual regions in order for it to be relevant and demand driven. Transfer system within technical and vocational learning is encouraged along with establishment of more TVET institutions and training centres.

## 5.2 Relevance and Quality

Chapter 2 of the draft TVET policy states the goals where one is to have curriculum development by region to suit the needs of labour market. Chapter 3 reinstates the support for lifelong learning experience, skills development, and international education standards in vocational education and training. Chapter 8 focuses on curriculum and offers for instructions to be up-to-date with the industry trends. It aims to create experts in industry who possess creativity and critical thinking. Addressing specifically to teacher quality and responsibilities, chapter 9 of the draft states basic qualification needed to become a teacher. The law also requires continuing education in order to maintain expertise in the subject area.

### **5.3 Management**

The management of TVET is under MoE (Science and Technology) with other ministries taking charge as appropriate. MoE functions as the central body in the implementation and execution of policies. Chapter 4 provides regulations and guidance for formation of new, resignation of existing TVET institutions and training centres. The responsibility of QA standards for the development of education and training centres and the certification of training programmes has solely been put on ‘an appropriate ministry in charge’. Chapter 5 designates formations of council, duties, and responsibilities with the specifics of support in research, enforcement of rules for QA, and disbursement of funds through appropriate bodies.

### **5.4 Infrastructure and Equipment**

The need for an up-to-date equipment as well as adequate infrastructure to provide quality TVET system has been recognized. To this date, Myanmar still lacks proper system and planning.

### **5.5 Other Factors**

The interchangeable system encouraged under the draft policy of TVET system may offer more prestige to TVET education. Additionally, the fact that the draft policy of TVET system has strict regulations in forming new institutions, inspection of existing ones, and clearer rules on fines when requirements are not met has hopes that the certificate factory situation will become non-existent.

### **5.6 Further Suggestions**

Policies implemented for the Myanmar TVET system should be specific. Beginning with the authority responsible for TVET, it should venture into involvement of the private sector and budget planning. Since the

draft policy is to be the new TVET policy, it should offer more support. Additional studies may be needed to further examine and evaluate the best policies for Myanmar.

## 6 Conclusion

This analysis is mainly focused on the TVET system of Myanmar, policy reform, challenges, and further improvements that could be made. As a latecomer in the system, countries with better TVET structures such as Germany, the United States, and Vietnam can be taken as an example to ensure success during reform. The government of Myanmar has been heading in the right direction with implementation and creation of policies. Many policies, such as CESR in 2012 and National Education Law of 2014, have been the foundation of Myanmar TVET system reform. The draft TVET policy implemented in 2016 is the right direction and it must be put in effect immediately. The draft policy will attend to many challenges such as access, relevance and quality, management, infrastructure and equipment, and other factors. Lastly, additional studies have been suggested to further examine and evaluate the best TVET policies for Myanmar.

## Notes

1. Young people include adolescents (aged 10–19) and youth (aged 15–24). See more at: <http://myanmar.unfpa.org/topics/young-people-3#sthash.8Ji6LCrU.dpuf>
2. About 54 per cent of Germany workers are skilled craftsmen (apprentices from dual education); University graduates and unskilled comprised 18 per cent; and graduates from vocational colleges and technicians (master craftsmen) comprised 10 per cent of the total workforce in 2012.
3. (i) Access: improve the affordability of and access to college and workforce training; (ii) Quality: foster institutional quality, accountability, and transparency to ensure that post-secondary education credentials represent effective preparation for students to excel in a global society and a changing

economy; (iii) Completion: increase degree and certificate completion and job replacement rates in high-need and high-skilled areas (UNESCO-UNEVOC, World TVET Database USA 2014).

4. (i) MOLISA; (ii) MOET; (iii) various line ministries, including Industry and Trade; Agricultural and Rural Development, Transport; Construction; Defense; Health; Culture; Sports and Tourism; (iv) Vietnam Labor Federation; (v) Vietnam Women's Union; (vi) Cooperatives Alliance; (vii) State-owned enterprises; and (viii) Provincial, city, and district governments (Asian Development Bank 2014).

## References

- Asian Development Bank (ADB). (2014). *Improving Lives Throughout Asia and the Pacific*. Annual Report. Retrieved from <https://www.adb.org/sites/default/files/institutional-document/158032/adb-annual-report-2014.pdf>. Accessed 16 Jan 2017.
- Comprehensive Education Sector Review (CESR). (2014). <http://www.cesrmm.org/index.php/en/>. Accessed 16 Jan 2017.
- Federal Ministry of Education and Research, IAB, Federal Statistical Office. (2013). *Vocational training "Made in Germany" Germany's dual system of Vocational Education and Training (VET) (2014). Germany trade and invest.* [https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/BLG/blg--most-wanted--dualvocational-training-in-germany-pdf.pdf?v=4](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/BLG/blg--most-wanted--dualvocational-training-in-germany-pdf.pdf?v=4). Accessed 16 Jan 2017.
- Germany Trade & Invest. (2014). *Vocational Training "Made in Germany": Germany's Dual System of Vocational Education and Training (VET)*. [https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/BLG/blg--most-wanted--dual-vocational-training-in-germany-pdf.pdf?v=4](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/BLG/blg--most-wanted--dual-vocational-training-in-germany-pdf.pdf?v=4). Accessed 16 Jan 2017.
- Human Development Reports. (2015). *United Nations Development Program*. <http://hdr.undp.org/en/countries/profiles/MMR>. Accessed 16 Jan 2017.
- Milio, S., Garnizova, E., & Shkreli, A. (2014). *Assessment Study of Technical and Vocational Education and Training (TVET) in Myanmar*. DWT for East and South-East Asia and the Pacific. Bangkok: ILO.
- Ministry of Education (MoE). (2017). <http://www.moe.gov.mm/en/>. Accessed 16 Jan 2017.

- Ministry of Education (MoE) – Draft Law. (2016). <http://www.moe.gov.mm/en/?q=draftlaw>. Accessed 16 Jan 2017.
- Naing, T. H. (2016). *Strengthening TVET School-Industry Relation*. Yangon: Center for Economy, Environment and Society – CEES Myanmar.
- PepsiCo, UNESCO and the Myanmar Ministry of Education Pioneer Public-Private Vocational Training Partnership in Myanmar. (2014). <http://www.pepsico.com/live/pressrelease/pepsico-unesco-and-the-myanmar-ministry-of-education-pioneer-public-private-vocational-training-partnership-in-myanmar>. Accessed 16 Jan 2017.
- Scarpetta, S., & Sonnet, A. (2012). Investing in Skills to Foster Youth Employability – What Are the Key Policy Challenges? *Intereconomics* 2012. doi: 10.1007/s10272-012-0402-2. Retrieved from <https://www.oecd.org/els/emp/49567835.pdf>. Accessed 16 Jan 2017.
- UNESCO-IBE. (2011). *World Data on Education VII Ed. 2010/2011*. Geneva: UNESCO IBE.
- UNESCO-UNEVOC. (2014). *World TVET Database*. Bonn.
- U.S. Department of Education. (2011). *Digest of Education Statistics*. Washington, DC: National Center for Education Statistics.
- World Bank. (2014). *Youth Unemployment Rate*. Washington, DC. <http://data.worldbank.org/indicator/SL.UEM.1524.ZS> Accessed 30 Dec 2016.
- World TVET Database – Country Profile: Vietnam. (2014). <http://www.unevoc.unesco.org/go.php?q=World+TVET+Database&ct=USA>. Accessed 16 Jan 2017.
- World TVET Database – Myanmar. (2014). [http://www.unevoc.unesco.org/wtdb/worldtvetdatabase\\_mmr\\_en.pdf](http://www.unevoc.unesco.org/wtdb/worldtvetdatabase_mmr_en.pdf)
- World TVET Database – USA. (2014). <http://www.unevoc.unesco.org/go.php?q=World+TVET+Database&ct=USA>. Accessed 16 Jan 2017.