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Partnerships for Skilling ASEAN's Workforce

Business and industry collaboration in technical and vocational education and training in Cambodia, Lao PDR, Myanmar, the Philippines, Thailand and Viet Nam

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List of abbreviations

ACE	ASEAN Confederation of Employers	GMAC	Garment Manufacturing Association of Cambodia
ADB	Asian Development Bank	GoM	Government of Myanmar
AFD	Agence Française de Développement	GNI	Gross National Income
AHRDA	Automotive Human Resource Development Academy, Thailand	GTI	Government Technical Institutes, Myanmar
AMS	ASEAN Member States	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Technical Cooperation)
ASEAN	Association of Southeast Asian Nations	GTDEE	German-Thai Dual Excellence Education
ASEAN-BAC	ASEAN Business Advisory Council	GTHS	Government Technical High Schools, Myanmar
BMO	Business Membership Organisation	GSP	Generalized System of Preferences
BPO	Business Process Outsourcing	HCVT	Ho Chi Minh College of Vocational Technology, Vietnam
BMZ	German Federal Ministry for Economic Cooperation and Development (translated)	ILO	International Labour Organisation
CAMFEBA	Cambodian Federation of Employers and Business Associations	IRC	Industry Reference Committee
CAT	Competency Assessment Tools	IVET	Integrated Vocational Education and Training
CATC	Civil Aviation Training Center	IT	Information Technology
CBET	Competency Based Education and Training	ITI	Industrial Training Institute, Cambodia
CDRI	Central Drug Research Institute	ITC	Industrial Training Centres, Myanmar
CGTI	Cambodia Garment Training Institute	IVEB	Institute of Vocational Education Bangkok
CoEs	Centres of Excellence	KfW	Kreditanstalt für Wiederaufbau
CPSC	Colombo Plan Staff College	KOICA	Korea International Cooperation Agency
CSR	Corporate Social Responsibility	KVIS	Kamnoetvidya Science Academy, Thailand
C-VET	Continuing Vocational Education and Training	JICA	Japan International Cooperation Agency
DCT	Dual Cooperative Training, Lao PDR	JMASVTI	Japan-Myanmar Aung San Vocational Training Institute, Myanmar
DCoHT	Dong Nai College of High Technology, Vietnam	LFA	Lao Furniture Association
DFAT	Department of Foreign Affairs and Trade, Australia	LGTC	Lao German Technical College
DOLE	Department of Labour and Employment, The Philippines	LIRC	Logistics Industry Reference Committee, Vietnam
DSD	Department of Skills Development, Thailand	LNCCI	Lao National Chamber of Commerce and Industry
DTS	Dual Training System	MEAP	Mitsubishi Electric Asia Pte Ltd
DVT	Dual Vocational Training, Thailand	MGMA	Myanmar Garment Manufacturers Association
DGTVET	Directorate General of Technical and Vocational Education and Training	MLVT	Ministry of Labour and Vocational Training, Cambodia
DVET	Directorate Vocational Education and Training, Vietnam	MOE	Ministry of Education (across countries)
ECOP	Employers' Confederation of the Philippines	MOES	Ministry of Education and Sports, Lao PDR
ECOT	Employers' Confederation of Thailand	MOLIP	Ministry of Labour Immigration and Population, Myanmar
EEC	Eastern Economic Corridor, Thailand	MOLISA	Ministry of Labour, Invalids and Social Affairs, Vietnam
EMS	Excellent Model Schools, Thailand	MOLSW	Ministry of Labour and Social Welfare, Lao PDR
FDI	Foreign Direct Investment	MOT	Ministry of Tourism, Cambodia
GDP	Gross Domestic Product	MoUs	Memorandums of Understanding
		MPI	Ministry of Planning and Investment, Laos
		MSMEs	Micro, Small and Medium Enterprises
		NBVTC	National Board of Vocational Training Coordination, Thailand
		NEP	National Employment Policy (Cambodia)
		NGO	Non-governmental Organisation

NIVET	National Institute for Vocational Education and Training, Vietnam	TESD	Technical Education and Skills Development
NTB	National Training Board, Cambodia	TESDA	Technical Education and Skills Development Authority, Philippines
NTF	National Training Fund	TFI	Thai Federation of Industries
NTTI	National Technical Training Institute, Cambodia	TIBFI	Tourism Industry Board Foundation Inc., Philippines
NSSA	National Skills Standards Authority, Myanmar	TIPC	Tripartite Industrial Peace Council
NQF	National Qualifications Framework	TQI	Thai-German Institute (TGI)
NPIC	National Polytechnic Institute, Cambodia	TPQI	Thailand Professional Qualification Institute, Thailand
NSO	National Statistical Office of Thailand	TTTI	TVET Teacher Training Institute, Myanmar
NTC	National Training Council, Lao PDR	TR	Training Regulations
NTC-PO	NTC – Permanent Office, Lao PDR	TVET	Technical Vocational Education and Training
NTESDP	National Technical Education and Skills Development Plan, Philippines	TWGs	Trade Working Groups
OECD	Organisation for Economic Co-operation and Development	UNDP	United Nations Development Programme
OJT	On-the-Job	UNESCO	United Nations Educational, Scientific and Cultural Organisation
OVEC	Office of the Vocational Education Commission, Thailand	UNIDO	United Nations Industrial Development Organization
PAQTVET	Philippines Australia Quality in TVET Project	UMFCCI	The Union of Myanmar Federation of Chambers of Commerce and Industry
PBVT	Provincial Board of Vocational Training Coordination, Thailand	VCCI	Vietnam Chamber of Commerce and Industry
PCA	Philippine Constructors Association	VEDI	Vocational Education Development Institute, Laos
PCCI	Philippines Chamber of Commerce and Industry	VELA	Vocational Education in Laos
PONC-TVET & SD	Permanent Office of the National Council for TVET and Skill Development	VEC	Vocational Education Commission, Thailand
PME	Peace Myanmar Electric	VLA	Vietnam Logistics Association
PPP	Public-private Partnership	VTC	Vocational Training Centres
PSD	Private Sector Development	VWSA	Vietnam Water Supply and Sewerage Association
PSE	Pour un Sourire d'Enfant, Cambodia	WBL	Work-based Learning
PTIT	Petroleum Institute of Thailand	WIL	Work-integrated Learning
PTQF	Philippine TVET Qualifications Framework		
PwC	PricewaterhouseCoopers		
QF	Qualification Framework		
RECOTVET	Regional Cooperation Programme to Improve the Quality and Labour Market Orientation of Technical and Vocational Education and Training		
SDC	Swiss Agency for Development and Cooperation		
SDF	Skills Development Fund		
SEAMEO	Southeast Asian Ministers of Education Organisation		
SIT	Supervised Industry Training		
SITE	School of Industrial Training and Education, Myanmar		
SCG	Siam Cement Group		
SMEs	Small and Medium-sized Enterprises		
SMVTI	Singapore-Myanmar Vocational Training Institute		
SSC	Sector Skills Committee		
STED	Skills for Trade and Economic Diversification		
TCC	Thai Chamber of Commerce		

Foreword

The Association of Southeast Asian Nations (ASEAN) is one of the largest economic communities in the world experiencing stable growth since 2000. The lack of adequately skilled workers is a crucial bottleneck for sustained growth, particularly in view of advances in manufacturing technology and automation. Technical and vocational education and training (TVET) is recognised as an important element in strategies to close prevailing skills gaps and reduce youth unemployment. Correspondingly, TVET ranks high on the agenda of ASEAN member states (AMS). In practice, however, the school-based TVET systems of AMS rarely meet expectations of business and industry with respect to practical competencies of TVET graduates.

The potential of engaging business and industry representatives in the planning and delivery of TVET has been widely recognized by AMS. However, several challenges persist for business and industry to meaningfully participate in TVET: Legal and policy frameworks often do not encourage a strong role of the private sector in TVET, coordination mechanisms facilitating a systematic public-private dialogue are not in place, and on the side of business and industry itself, individual as well as organisational capacities are lacking.

These are some of the concerns raised and discussed in policy dialogues focusing on TVET in the region, including those convened by the Regional Cooperation Programme to Improve the Quality and Labour Market Orientation of TVET (RECOTVET). RECOTVET is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). The objective of the programme is to strengthen the human resources, institutional capacities and know-how for harmonised and labour market oriented TVET systems in the ASEAN region.

In 2018, RECOTVET in cooperation with the ASEAN Secretariat, initiated a regional learning process among AMS to identify challenges and solutions to strengthening business and industry cooperation in TVET. The process was kicked off at the 7th Regional Policy Dialogue on “Business and industry cooperation in TVET – Towards a better practice for ASEAN”¹ at which both public sector representatives (senior education and labour officials from relevant ministries of AMS) and private sector representatives affirmed their willingness to institutionalize a cooperation mechanism for TVET.

As a concrete step, a regional working group of TVET champions from business and industry was launched. Over the course of one year, this regional working group developed a policy document, called Future ASEAN Agenda for TVET², that outlines 45 specific, action-oriented recommendations (categorized into 9 focus areas) for strengthening the contributions of business and industry in TVET. The Future ASEAN Agenda for TVET was presented and discussed with public sector representatives at the 9th Regional Policy Dialogue “Business and industry cooperation in TVET – Advancing ASEAN’s Future Agenda for TVET”³ in 2019. It has been well-received by the public and private sector in ASEAN and is also highly regarded by international experts.

To inspire and recognize the involvement of companies in human capital development activities, RECOTVET also initiated a collaboration with the ASEAN Business Advisory Council (ASEAN-BAC) to add a new category to the prestigious annual ASEAN Business Awards, called Skills Development Award. The award, which was first launched in 2019, highlights the role human capital plays in the growth of companies and the economy of the region as a whole. It recognises outstanding companies that have demonstrated a significant contribution to human capital development, especially in the current context of technological disruption.

Finally, RECOTVET commissioned NIRAS-IP Consult to conduct this study with the objective to provide an in-depth analysis of the current state of affairs of business and industry cooperation in AMS and identify opportunities and challenges in moving the cooperation to the next level.

A systematic mapping of existing efforts by AMS to strengthen business and industry cooperation in TVET has been lacking so far. RECOTVET developed the framework for the study to fill this gap. It is our hope that the detailed descriptions of the status quo in each country, the comparative analysis of countries, as well as the recommendations and guiding questions derived from the analysis, will further contribute to the regional learning process among AMS that has been initiated by RECOTVET in 2018. We also hope that the study will support policy makers and other stakeholders in the region in identifying the most suitable measures to further strengthen business and industry cooperation in TVET in their countries.

RECOTVET, July 2019

1 The summary record of the 7th Regional Policy Dialogue can be found at https://sea-vet.net/images/seb/events/appendix_file/111/201807177th-rpdsummary-record.pdf

2 The Future ASEAN Agenda for TVET can be found at https://sea-vet.net/images/seb/e-library/doc_file/490/future-asean-agenda-for-tvet.pdf

3 The summary record of the 9th Regional Policy Dialogue can be found at https://sea-vet.net/images/seb/events/appendix_file/457/9th-rpdsummary-record.pdf



Executive Summary

There is general agreement among stakeholders in the ASEAN region that business and industry collaboration is important to ensure that TVET provides the skills needed to conduct companies' business operations. From policy development to practical training – business and industry have an important role to play. The underlying factors that constitute successful cooperation are, however, less clear. How can collaboration go beyond the signing of memorandums of understanding (MOUs) to become long-term partnerships that lead to improved employability of learners? What are the policy measures that can facilitate business and industry engagement in shaping policies and improving the overall relevance of training? What good practices can be shared among ASEAN Member States (AMS) and beyond?

RECOTVET commissioned this study to help answer these questions by shedding light on ongoing practices in AMS, facilitate policy learning among countries and contribute to building a knowledge base on developments in business and industry collaboration in TVET in ASEAN.

What differentiates this study from others is its focus on providing a detailed description of the status quo of business and industry collaboration in TVET in six AMS, namely Cambodia, Lao PDR, Myanmar, the Philippines, Thailand and Viet Nam, and a comparative analysis of these countries according to different dimensions. The report also entails practical examples and concludes with a set of recommendations and guiding questions to help policy makers in their efforts to further strengthen business and industry collaboration in TVET.

The study is based on desk research involving a systematic review of literature, country visits to all six AMS to interview relevant

stakeholders⁴ and a write up and review phase totalling eight and a half months (Dec 2018 – mid-July 2019). The results are laid out in four main chapters, following an introduction (chapter 1) and detailed description of the methodology (chapter 2): The literature review can be found in chapter 3, countries profiles in chapter 4, the comparative analysis in chapter 5, and recommendations in chapter 6.

The literature review (chapter 3) reveals a number of topics and approaches generally taken when researching business and industry cooperation in TVET. The types of collaborations are often analytically clustered into different dimensions ranging from degrees and modalities of cooperation⁵ or types of companies⁶ that engage in collaborations to means of company involvement, such as through work-based learning. The topic is further viewed from the economic perspective and often discussed in view of policies, governance and financing mechanisms that involve business and industry investment in skills training. The topic is also often addressed from a thematic perspective whereby the role of business and industry is considered in the context of quality assurance or leadership or from a country perspective where it is discussed in country studies focusing on TVET. Business and industry collaboration in TVET is equally pertinent for ASEAN integration and often examined in the context of migration of skilled workers in the region.

The country profiles (chapter 4) provide concise descriptive country mappings, which for the first time systematically document the status quo of business and industry collaboration in TVET, including an outline of relevant laws, policies and stakeholders in each country. A detailed description of relevant stakeholders can also be found in Appendix 2.

⁴ Including national stakeholders, business membership organisations (BMOs), development partners and training providers

⁵ Ranging from simple information sharing on one end to contractual responsibility on the other

⁶ Ownership type, size, economic stability, origin, technology, sector, staff recruitment

The study finds that all six countries have ongoing initiatives that engage business and industry at different levels of the TVET systems. At policy level, there are efforts to engage companies and business membership organisations (BMOs) in shaping policies through cross-ministerial dialogue platforms (Thailand) or in occupational standard development (Myanmar). The prevailing mode of collaboration at school-level between companies and training providers remains work-based learning (WBL), which ranges from short job placements or internships to regulated apprenticeship schemes. All six countries have some form of dual training that covers parts of the formal TVET system.

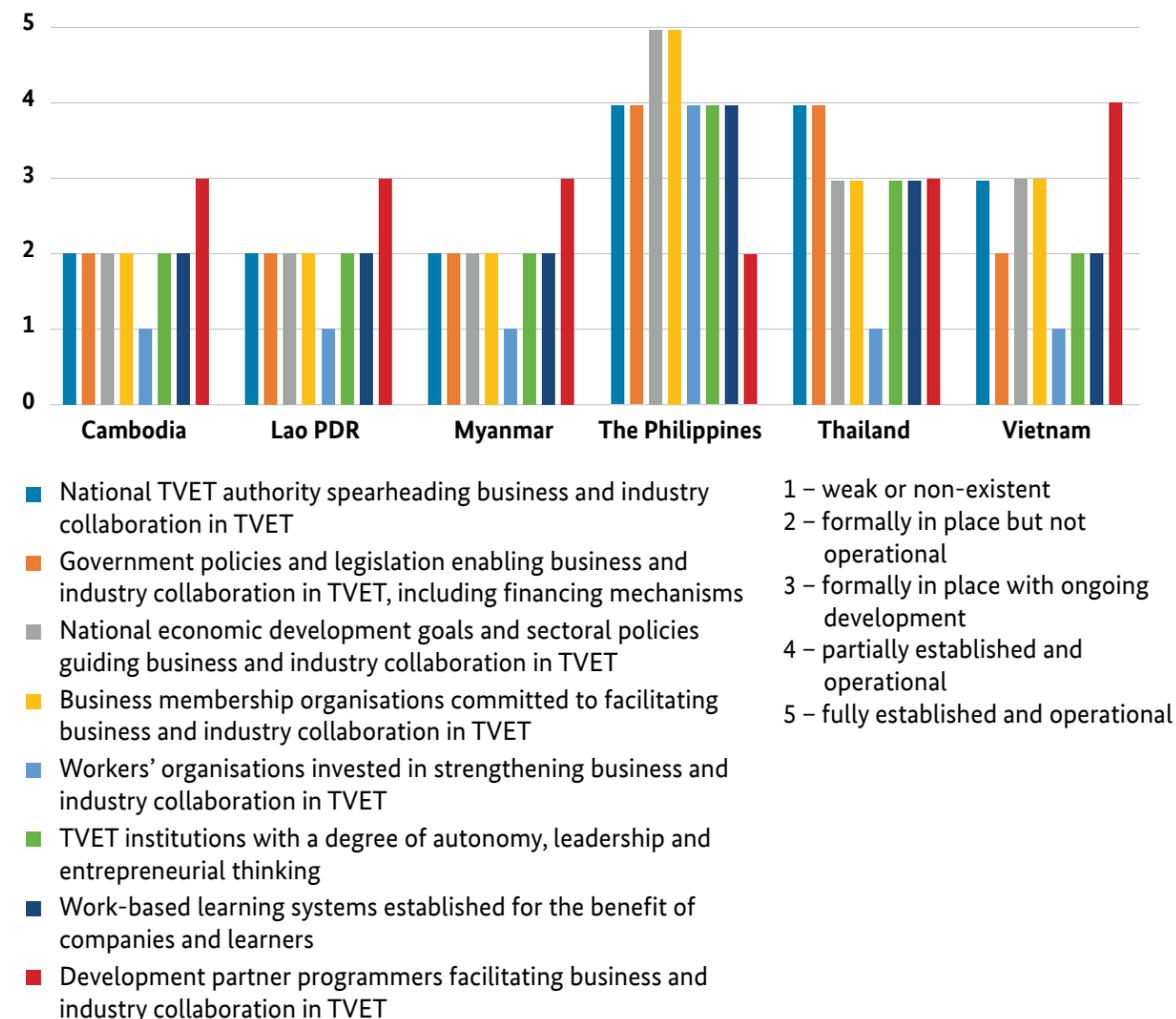
Overall, however, collaborations remain ad hoc rather than systematic with larger, often international companies, leading the way in setting up training initiatives with the involvement of TVET providers or by supporting their existing training programmes through scholarships, equipment sponsorship or instructor training. Small and Medium Enterprises (SMEs), which make up the vast majority of enterprises and partly operate in the informal sector in ASEAN, are less engaged in TVET due to limited financial and human resources and a reluctance to lose newly trained employees often due to weak employment regulations. It is also important to acknowledge the role of bilateral donors, such as Germany or Switzerland, in financing and facilitating employer engagement. Multilateral organisations, such as the ILO and ADB, have an equal stake in ensuring that companies have their say in skill development initiatives in the region.

To advance the thinking on collaborations, the study identifies eight dimensions that are considered important for establishing a

context in which companies can engage in TVET. These dimensions are not exclusive but are some of the fundamentals necessary for establishing mutually beneficial collaborations:

1. National TVET authority spearheading business and industry collaboration in TVET
2. Government policies and legislation enabling business and industry collaboration in TVET, including financing mechanisms
3. National economic development goals and sectoral policies guiding business and industry collaboration in TVET
4. Business membership organisations committed to facilitating business and industry collaboration in TVET
5. Workers' organisations invested in strengthening business and industry collaboration in TVET
6. TVET institutions with a degree of autonomy, leadership and entrepreneurial thinking
7. Work-based learning systems established for the benefit of companies and learners
8. Development partner programmes facilitating business and industry collaboration in TVET

The results of the comparative analysis (chapter 5) highlight that there is still a lot of room for improving business and industry collaboration in TVET across all eight dimensions. The classification aims at facilitating dialogue about possible priority areas for the further development of business and industry collaboration in TVET in each of the six AMS:



Recommendations (chapter 6) resulting from the analysis and reflecting the eight dimensions are proposed as food for thought for policy makers and practitioners in ASEAN to start up, revive or strengthen ongoing collaborations. The recommendations include guiding questions for policy makers and other stakeholders who want to strengthen business and industry collaboration in TVET:

• **Streamline policies, legislation and governance in TVET**

The first recommendation is to streamline policies, legislation and governance in TVET in a way that is consistent, enabling and non-contradictory. This lengthy and often difficult process should be led by a national TVET authority with a strategic vision on engaging corporate partners.

• **Establish financing mechanisms that stimulate business and industry collaboration in TVET**

Establishing financing mechanisms, such as tax levies and funds, that are transparent and not perceived as an additional tax burden by business and industry is challenging. Nevertheless, it is recommended that funds and levies are (re-) designed with the involvement of business and industry and a clear objective. Where national financing mechanisms are not feasible, sectoral financing mechanisms should be considered. These should be piloted and later integrated in national skills development financing mechanisms.

- **Establish sector-based approaches to business and industry collaboration in TVET**

It is further recommended that sector-based approaches, for example the establishment of national sector skills committees (SSCs) are pursued. The establishment of SSCs should be prioritised in bilateral cooperation at a sectoral level, if possible. Sectors in line with national economic development goals should be made a priority to align efforts and available funds.

- **Enable customised work-based learning models**

WBL is a model recognised by all six countries as a mechanism for improving the relevance of skills training. It is recommended that the implementation of WBL remains flexible to accommodate the nature of business and industry, which is made up of predominantly micro and small enterprises in the region. It is proposed that trials with customised models of WBL are considered as pilot projects before scaling up.

- **Strengthen leadership and increase autonomy of TVET institutions for successful business and industry collaboration in TVET**

Policy vision, leadership and capacity for innovation at an institutional level is instrumental for long-lasting collaborations. It is recommended that public TVET institutions are provided with sufficient autonomy and capacity to build successful collaborations with the business sector. The introduction of competitive financing for public TVET institutions, whereby parts of financing allocations is contingent on established business and industry collaborations, should be considered. Capacity building in leadership and partnership development remain important areas of support for the TVET sector.

- **Harness development partner support to strengthen business and industry collaboration in TVET**

Finally, it is recommended that donor coordination mechanisms are put in place, or if they already exist, that they take up the topic of business and industry collaboration in TVET in a strategic way. The roles and programmes of development partners need to be transparent and exit and (financial) sustainability strategies need to be in place at the onset of programmes to enable corporate partners to further invest and maintain collaborations.

1 Introduction



Southeast Asia remains an economically dynamic region with great human potential to advance the development of the Association of Southeast Asian Nations (ASEAN). According to the OECD, the overall growth in the region remains stable despite diverging trends among countries (OECD, 2018). Overall, the region's GDP has more than quadrupled from US\$ 577 billion in 1999 to US\$ 2,551 billion in 2016 (PwC, 2018), turning ASEAN into the sixth-largest economy in the world. As an economic powerhouse with a single market and production base along with free flow of goods, services and capital that drives the ten ASEAN Member States (AMS), ASEAN has a vision to harmonise its rules and regulations. This is an ongoing process that also includes efforts to increase the mobility of skilled labour.

In this context, education and training are considered key mechanisms for ensuring countries tap into their human capital. Therefore, TVET remains an important part of the education sector for many ASEAN countries. This is evident in the ASEAN Work Plan on Education (2016–2020), which includes a specific sub-goal on the development of TVET and lifelong learning (Sub-Goal 4). Equally, the Southeast Asian Ministers of Education Organisation (SEAMEO, 2018) identifies TVET as one of its seven priority areas for educational development between 2015 and 2035 (Priority 4). Some AMS also recognise TVET as an important driver in their national education policies.

Along with efforts to harmonise, it is important to recognise the diversity of the countries in the region. The different geographic locations, population sizes, economic circumstances and political developments are all reflected in the current status of TVET systems in AMS. The neglect of education and training during the military junta rule in Myanmar between 1962 and 2011 cannot be compared to the Philippines'

history of continuous TVET policy development. Equally, the capacity to invest in TVET cannot be compared between the small, landlocked Lao PDR and its large and economically vibrant neighbour Thailand. Despite the diversity, what all the countries in the region have in common is the desire to improve the quality and relevance of their TVET systems. There is a recognition at all levels that the training provided by public TVET providers lags behind the innovation and technological advances in the business sector and that business and industry involvement in TVET is imperative to ensuring that TVET can respond to labour market demands in terms of skills needs.

There are ongoing efforts to collaborate with the business and industry sector in strengthening skills training in the region. Collaborations range in depth from one-off engagements to long-standing partnerships. They focus on different aspects of TVET ranging from national policy, standards and curriculum development to training delivery or assessments and testing. Collaborations take place where joint objectives meet complementary capacities. National authorities can establish agreements with BMOs, or training providers can work directly with companies.

GIZ has launched this study through its RECOTVET⁷ programme in an effort to better understand the extent of business and industry cooperation in TVET in ASEAN and to examine the factors underlying successful collaboration. The topic itself is not new. Business and industry involvement is a well-acknowledged factor that can increase the quality and relevance of TVET. It is an issue that is regularly debated in TVET circles and addressed in research on different aspects of TVET. It is well understood that there is no one-size-fits-all solution for successful cooperation. The policy measures necessary for establishing conditions that enable

cooperation to flourish are, however, less well-understood. The developments and ongoing initiatives in business and industry cooperation in TVET in AMS are also not yet comprehensively captured in any similar report.

With its mandate to strengthen human resources, institutional capacities and knowhow for harmonised TVET systems in the ASEAN region, the RECOTVET programme is therefore well positioned to launch a regional report that helps shed light on the factors and policy measures critical

for developing successful cooperation with business and industry. RECOTVET has commissioned this report to respond to this interest and provide an analysis of latest developments in six AMS. Based on these developments, a comparative analysis of the strengths and weaknesses in business and industry cooperation in TVET in the six countries is presented. It is hoped that this report will provide valuable input to ongoing policy dialogues, support policy learning among AMS and ultimately lead to better informed decision-making in TVET.

7 The Regional Cooperation Programme to Improve the Quality and Labour Market Orientation of TVET (RECOTVET) is commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ)

2

Methodology



This study focuses on business and industry collaboration in TVET in ASEAN. It aims at providing a comparative analysis of the current state of affairs of business and industry involvement in TVET in AMS and identifying factors underlying successful collaborations. The comparative analysis focuses on six AMS – Cambodia, Lao PDR, Myanmar, the Philippines, Thailand and Viet Nam – with a short country profile of each country that elaborates on the status of business and industry cooperation in TVET in more detail.

The primary target audience for this study are national authorities in charge of TVET in AMS. The findings are to inform TVET policy-making processes and more specifically help create enabling conditions for business and industry cooperation in TVET through experience sharing in the region. The secondary target audience are the ASEAN Secretariat, business membership organisations (BMOs) and other stakeholders with an interest in supporting business and industry collaboration in TVET in AMS. Business and industry engagement in TVET is a pertinent issue for a wide range of TVET stakeholders and the report is expected to provide relevant information for everyone.

The report is based on a qualitative research approach, which was conducted in three phases, namely:

1. **Desk research** (Dec 2018 – Jan 2019) which involved a systematic review of literature on the topic of business and industry collaboration in TVET in AMS. This phase formed the basis for mapping the status quo of collaboration between TVET providers and business and industry in the

six countries. The desk research focused on all types of resources ranging from publications and journal articles to online articles and information available on the websites of the main resource partners.⁸ Besides mapping existing literature, this phase also involved identifying key informants for the planned country visits.

2. **Country visits** (Feb 2019 – March 2019) to the six AMS which were conducted to validate initial findings of the desk research and identify any additional practices included in this study. The country visits allowed for a more in-depth understanding of the situation through interviews and discussions with selected key informants and helped identify relevant practices in business and industry collaboration in TVET in the six countries. The interviews with key informants followed an interview guide (see Appendix 4) that was developed prior to the visits to ensure systematic collection of information. The key informants included individuals representing national TVET authorities, development partners, training providers, companies, unions and BMOs involved or interested in strengthening collaboration with training providers (Table 1).
3. **Analysis, write-up and review** (April 2019 – June 2019) which was the last phase of the study focused on consolidating the findings and conclusions based on the desk research and country visits. The two main consultants (René Lenssen and Barbara Trzmiel) developed the first draft, which was peer reviewed by a third consultant (Carmela Torres). The final report was finalised after integrating feedback and suggestions from RECOTVET.

	TVET Authority/ Agency/Board/ Council/ Ministry	BMO (chambers and associations), companies and unions	Development partners	Training providers (public and private)
Cambodia	3	5	2	3
Lao PDR	3	5	3	5
Myanmar	1	2	3	9
Philippines	1	4	2	2
Thailand	2	4	1	3
Viet Nam	1	2	3	3
Total	11	22	14	25

Table 1: Key informants per category – Overview

This study adopts a wider definition of TVET, which includes skills development at all levels, including non-formal and informal training. According to UNESCO (2015), TVET “is understood as comprising education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods. TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development which may lead to qualifications”. This study has intentionally adopted a wider understanding of TVET albeit data is mostly available for formal TVET in most countries.

In this study, business refers to “an organization or economic system where goods and services are exchanged for one another or for money. Every business requires some form of investment and enough customers to whom its output can be sold on a consistent basis in order to make a profit. Businesses can be privately owned, not-for-profit or state-owned”.⁹ In this study,

different types of businesses are considered along with different types of organisations representing their interests. These organisations are referred to as business membership organisations (BMO).

This study is an effort to provide an overview of ongoing developments in business and industry collaboration in TVET in AMS and to contribute to a better understanding of factors underlying successful cooperation. Given this ambitious task, there are some limitations to the study, which include a tight timeline of seven months to complete a regional analysis of six countries, the inevitable focus on the formal rather than informal TVET system and collaborations with public, rather than private, training providers. This focus has developed as a result of national TVET authorities facilitating the contacts to public TVET institutions. Private TVET providers, however, are also considered in this report. Despite these limitations, the report provides a comprehensive, up-to-date mapping and regional overview of business and industry collaboration in TVET in AMS.

⁸ Resource partners are the relevant partners, in most cases regional or international organisations with an interest and experience in TVET, instrumental in providing guidance and relevant input for this assignment. Examples include UNESCO-UNEVOC, SEAMEO VOCTECH, etc.

⁹ <http://www.businessdictionary.com/definition/business.html>

3 Literature Review



This section reviews the existing literature on business and industry collaboration in TVET from an ASEAN (non-country specific) perspective. A number of notable studies that discuss the topic from a broader perspective (global or other regions) or deal with a broader scope, including business and industry collaboration in TVET only as a sub-topic, are also reviewed. So is literature that addresses specific thematic areas, such as work-based learning or standard development. The literature review focuses on literature published from 2013 onwards and resources available in English.

It appears that academic literature, published in books or scientific journals, focusing on the topic of business and industry collaboration in TVET in ASEAN countries is rather limited. Most of the accessible academic literature deals with individual countries or sectors and is often presented through case studies. Furthermore, the available literature often focuses on countries with a more advanced, institutionalised system of business and industry collaboration in TVET, which is not always the case in developing countries.

The majority of the accessible literature on the topic consists of project progress reports, thematic or evaluation studies, project documents and policy papers which are published or commissioned by government bodies, industry organisations, international development or national and international policy and research organisations with a specific interest in TVET and skills development. These studies are often less academic in nature and serve a specific, often project-related, purpose. Moreover, the topic of business and industry collaboration in TVET is generally very dynamic with latest developments captured in sources such as

websites, newsletters, blogs and conference or workshop proceedings.

Given the nature of the available literature, there is currently no comprehensive analysis of business and industry collaboration in TVET in ASEAN countries. This literature review therefore is the first step to identify the main topics which emerge from the available literature and provide a basis for analysing the state of affairs in business and industry collaborations in AMS. The following section presents the emerging topics and the related studies in more detail.

3.1. Dimensions of business and industry collaboration in TVET

Various studies try to classify the dimensions, topics and activities relevant to business and industry collaboration in TVET. These studies take a macro (global or regional) view and are often based on findings from country reports.

A recent study (European Commission, 2017) distinguishes three dimensions of cooperation, namely, TVET process,¹⁰ topic¹¹ and level¹² of cooperation. The categories are based on findings from country studies¹³ focusing on experiences in Europe. The report concludes with a number of recommendations recognising the potential of business and industry collaboration in TVET and the need for governance systems to remain flexible to different types of cooperation with the industry.

Euler (2018) makes the distinction between school-based training and work-based training and provides an overview of typical forms of collaboration in each of the two systems, which is summarised in Table 2.

Collaborations in School-based Training	Collaborations in Work-based Training
<ul style="list-style-type: none"> • Implementation of company-based training, supplementing school-based learning; • Examinations and certifications; • Qualifications of teaching and training staff; • Provision of equipment and teaching materials; • Industry represented in the governance of TVET and as ambassadors of TVET; • Curriculum development; and • Participation in financing. 	<ul style="list-style-type: none"> • Implementation of school-based learning, supplementing work-based training; • Development and implementation of training standards; and • Development and implementation of examinations and certifications; • Development of apprenticeship and internship systems.

Table 2: Possible areas of collaboration with a focus on schools or workplaces¹⁴

Another study (GIZ, 2018) provides a classification which relates to the different degrees of cooperation that are relevant for TVET system development:

- *Coordination* usually focuses on information sharing, while each party performs its own activities
- *Cooperation* focuses on sharing of information and resources for joint activities
- *Collaboration* not only focuses on sharing of information and resources but goes a step further by synchronising strategies
- *Partnership* is generally based on a contractual relationship, with legal contracts such as a Memorandum of Understanding (MoU)

The same study proposes to differentiate necessary processes for cooperation in four dimensions:

1. Implementation approach;¹⁵
2. Coordination mechanism;
3. Regulatory framework; and
4. Labour market information and database system.

The study further discusses existing approaches in analysing success factors and

challenges. It differentiates between levels of challenges for business and industry collaboration in TVET, such as in strategy development, interaction/communication, and due to institutional barriers.

Another analytical paper (Vi, 2016) discusses success factors, compares these in developed and developing countries in Europe and Asia and proposes models for cooperation. It further distinguishes between the macro-level, which is mainly about the role and the ability of national TVET authorities to initiate stakeholder engagement, and the micro-level, which looks at the actual business and industry collaborations in TVET.

A comparative analysis (EPF, 2018) arrives at similar conclusions but also provides recommendations, such as increasing permeability between VET and higher education institutions, which in fact means that there should be more transition from TVET to higher education. In addition, the study looks at factors within various countries, including economic and demographic developments, the role of SMEs and the policies affecting private sector engagement at large.

¹⁰ The TVET process includes curriculum development, TVET delivery and feedback loops.
¹¹ Topic includes matching supply and demand, work-based learning, digital skills, innovation, mobility, entrepreneurial skills, social inclusion and raising awareness.
¹² Level is broken down into global, EU, national, sectoral, local/regional and individual (one business, one provider).
¹³ Austria, Denmark, Finland, Germany, Italy, Latvia/Lithuania, the Netherlands, Serbia, Slovakia, Czech Republic, the UK, Spain.

¹⁴ Source: A DC dVET-study (Euler, 2018) defines areas of engagement for school-based training systems and work-based training systems.
¹⁵ For example, institutional approach, direct approach to industry, and inter-line ministry coordination approach

The characteristics of companies (or a sector or industry) also determine the opportunities for business and industry collaboration in TVET (Maurer, 2015; SDC, 2013). For example, micro and small companies are less likely

to engage in TVET while companies with high technological intensity are more likely to engage in collaborations. It is possible to differentiate between companies in the context of TVET as illustrated in Table 3.

Characteristics	Dimensions
Ownership	Private vs. Public
Size (depending on number of staff)	Micro, Small, Medium, Large
Economic Stability	Robust vs. fragile
Origin	Domestic vs. Foreign
Technology, equipment, intensity	High, medium, low
Sectors	For example: Agriculture, Crafts/Industry, Services, Knowledge Economy
Sectoral Development Intensity	Dynamic-progressive, static, regressive
Staff recruitment	Local, regional, national, international

Table 3: Company characteristics and dimensions of cooperation¹⁶

3.2. Economic development and the role of business and industry collaboration in TVET

When looking at company engagement in skills development, the link to economic development and labour market demands is prevailing. Various studies about the ASEAN region address the skills needs of AMS. These studies take into account the transformation of the economies, the advent of Industry 4.0 and the fact that TVET in the ASEAN region remains mainly school-based, resulting in low job-readiness and delayed transition from school to the labour market.

The future of work and skills development is addressed in several studies and most of these studies focus on the relevance of “required adaptation” and “what has to be done”, although fewer authors are specific on the “how”. A collection of studies by the ILO (Sakamoto and Sung, 2018) states that a future skills strategy needs to address not only “what skills” and “who gets access to training” but

also whether and how these skills are having an impact on creating better employment and business outcomes, which requires greater appreciation of the demand side of skills and addressing skills issues in the context of, or in conjunction with, the evolving context of work and the strategies that a society forges in response to the changes and disruptions.

In an ADB study (Ra, Chin & Liu, 2015), the key global trends shaping skills demand and supply are described and connected with the potential skills mismatch in Asia. The study describes the gaps in access to education and training and gaps in quality and relevance. It also connects these gaps with the potential costs of skills mismatches. A country level technical assessment by ADB (2013) analyses the mismatch between the skills supply and demand of the labour force in Laos and provides recommendations on policy tools.

There are also a number of country-level studies that focus on the economic aspects of skills shortages and mismatches. For example, a recent study on Indonesia highlights the

need to enhance productivity through quality jobs, which it states requires improvements in education and training (Ginting, Manning & Taniguchi, 2018). There are also a number of studies focusing, for example, on the gaps emerging from the schooling system in Cambodia (Madhur, 2014), ways to identify the skills gaps in sectors such as the garment industry (Kingdom of the Netherlands, 2018) or the automotive industry in Viet Nam (JICA, 2016). More specifically, there a number of national skills analyses, such as the one conducted by the National Employment Agency in Cambodia (NEA, 2015; 2016).

In a policy paper by JICA (2014), the general skills mismatches in Viet Nam are addressed and tripartite partnerships are proposed as solutions. A recent World Bank study presents the scenarios for Viet Nam’s future jobs and the impact on cooperation with industry (Cunningham & Pimhidzai, 2018). The changing nature of work is also presented in the World Bank Development Report 2019 (World Bank, 2019). A study by the ILO (Bernhardt, 2017) that provides the perspectives of food processing and garment manufacturing companies recommends that the government provides incentives and supports business-driven training initiatives as a way to increase labour productivity in Myanmar.

A case study of how companies in AMS prepare for Industry 4.0 is the example of Bosch Rexroth in Viet Nam (Rexroth, 2019). A study from the ASEAN Integration Monitoring Directorate summarises all national initiatives and plans on preparing for the fourth industrial revolution. The study concludes that the readiness for Industry 4.0 in AMS varies, yet addressing skills needs is one of the main areas of attention across all countries (ASEAN, 2019). A joint OECD/RECOTVET Regional Policy Dialogue on TVET also addressed the preparedness for the next production revolution (OECD/RECOTVET, 2017).

3.3. Policy and financing frameworks for improved business and industry collaboration in TVET

Skills development policies are enablers of business and industry collaboration in TVET. However, the nature of such policies and instruments differ in high income countries and low to middle income countries. A UNIDO study (Albaladejo & Weiss, 2017) argues that in low- and middle-income countries skills development policies need to be better aligned with economic, industrial, technological and social development policies and strategies. More specifically, the study stresses the need to address the informal sector, youth employment and vulnerable groups. Policy makers need to consider the following factors:

- the complexity of the industrial skills needs,
- the quality of formal education systems,
- short-term versus long-term goals,
- the cumulative and sequential process of skills creation,
- matching supply and demand,
- alignment of skills policies to the broader economic/social agenda, and
- the prevention of coordination failures.

Financing arrangements are another aspect addressed in relation to business and industry collaboration in TVET. Most ASEAN countries have legislation and policies in place for financing TVET and many of those have provisions (or plans) for co-financing by business and industry. However, even if these instruments are in place, they are in many cases not implemented or enforced. Many TVET funds or skills development funds are financed by governments and/or development partners. A recent UNESCO study provides an overview of the modalities of skills development financing worldwide, including case studies from low- and middle-income countries worldwide (UNESCO, 2018).

16 Source: Maurer, M. (2015). The role of the private sector in vocational skills development. Zürich: SDC

An ADB policy paper (ADB, 2018) provides an overview for Cambodia and other countries. An overview of TVET financing in the East Asia and Pacific region is published by the Korea-World Bank Partnership Facility (Palmer, 2016).

The ADB, in a macro-level policy study on human capital development in South Asia (ADB, 2017b), makes policy recommendations for strengthening business and industry collaboration in TVET, which can be achieved by improving secondary and tertiary education outcomes to match changing skills demands, improving quality of training through more favourable environments for skills development and the introduction of more sustainable financing mechanisms to improve skills development systems.

3.4. Business and industry collaboration in TVET from a thematic perspective

Some literature deals with business and industry collaboration in TVET from a thematic perspective.

One of the specific topics addressed in the existing literature is leadership, which in the context of business and industry collaboration in TVET often implies partnership management. A collaboration involves various stakeholders with differing interests and potential benefits. The studies stress that it is important that all stakeholders possess the required level of leadership and management skills, entrepreneurial and innovative thinking, which is required for partnership management. Partnership management is an essential skill, and partners need to be aware of the benefits to be motivated to initiate collaborative projects. Benefits and interests are different for the various partners, such as government, industry, TVET institutions and students (GIZ Guideline, 2016).

Quality assurance is another topic for which business and industry collaboration is of relevance. This is, for example, described in a recent UNESCO study (UNESCO, 2017) on quality assurance in TVET. Some modes for engagement of industry mentioned in this study include:

- supporting development of sector or local policies;
- improving training provision at a firm or sectoral level;
- supporting financing mechanisms;
- joining the boards and management bodies of TVET-providing institutions;
- helping to identify occupational and skills standards to serve as the basis for education and training standards;
- participating in pilots, initiatives and innovation.

Quality assurance and improvement of TVET relevance are often presented as a key motivation as well as a result of business and industry collaboration. Several case studies are presented by GIZ, for example those resulting from the GIZ TVET Reform Programme in Vietnam (GIZ, 2018). A UNESCO report from the Asia-Pacific establishes key principles for improved quality and relevance of TVET (UNESCO, 2016). One of the principles focuses on stakeholder involvement, including industry groups and sector bodies and employer and employee associations.

3.5. Business and industry collaboration as a cross-cutting topic in country level TVET analysis

There are a number of studies that provide a country level analysis of TVET systems in the ASEAN region, including aspects of business and industry collaboration.

An assessment of TVET in Myanmar (Milio, 2014) provides a comprehensive overview of

the country context and the TVET governance structure. It analyses industry involvement at different levels starting with business engagement in policy making and curricula design to training delivery, apprenticeships and teacher training. As part of the same working paper series, ILO (2015) provides a more detailed analysis of industry leadership in human resource development in Myanmar. A working paper by Gennrich (2014) provides the key developments in employer involvement as part of an annual review of trends in the Lao TVET sector. The UNESCO (2013) looks at public-private partnerships,

including the role of employers in TVET policy-making and implementation in Laos.

Cross-country comparative analysis of business and industry collaboration in TVET can be found, for instance, between Singapore, the US and Thailand (Amornvuthivorn, 2016). The ILO (2016), comparing TVET developments in Lao PDR, Mongolia, the Philippines, Thailand and Viet Nam, provides a comprehensive overview of industry-based training, apprenticeship practices and business involvement in governance in these countries.

Perspectives on business and industry collaboration in TVET – Indonesia

The Ministry of Education and Culture has embarked on revitalising TVET through a policy entitled TVET Revitalisation SMK.¹⁷ TVET Revitalisation SMK makes explicit mention of a TVET model that is driven by industry and focuses on the development of public-private partnerships to enhance the quality of TVET. Specifically, the development of demand driven TVET programmes on the basis of the “Link and Match Industry Vocational Program” is encouraged. Reportedly, there were 178 partnerships between 135 schools and 15 different industries¹⁸ by 2018. Under the Ministry of Industries, other skills initiatives are formulated in relation to the National Industry Development Master Plan 2015–2035.

In this context, the GIZ report entitled Quo Vadis (2018) presents a number of best practices in business and industry collaboration in TVET from Indonesia. These include the Toyota Technical Education Program and the initiative by Sahabat Pendidikan Alfamart, an Indonesian chain of supermarkets, which are both driven by the companies' need for higher quality human resources. The report also provides proposals for developing and strengthening collaborations and gives examples of different types of best practices from Indonesia such as internships or apprenticeships (based on the German model), joint production facilities and alumni activities to maintain TVET and industry linkages.

The study argues that there are three main approaches to facilitate business and industry collaboration in TVET, namely the (1) institutional approach through industry and professional associations normally found in countries that have implemented the dual system, (2) the direct approach of industry which often takes place on a small-scale and is most commonly found in Indonesia and (3) the coordinated approach whereby national TVET authorities facilitate the collaboration of business and industry in TVET. The study also discusses who should lead collaborations and concludes that this is still an unfinished debate in Indonesia. It describes the regulatory framework and provides the insight that not all regulations are adequately aligned for effective business and industry collaboration.

Indonesia is working with development partners on improving business and industry collaboration in TVET. These include the ILO, who supports a project¹⁹ on apprenticeships. The key national partners in the project are the Ministry of Manpower, Indonesia Employers Association (Apindo), trade union confederations, sectoral business associations and industrial estates.

3.6. Business and industry collaboration in TVET in the context of public-private partnerships

The legal and business environment of public-private partnerships (PPP) varies across AMS. This also has an impact on business and industry collaboration in TVET.

In most cases, PPP-related legislation and policy frameworks are targeting major infrastructural projects or new models of financing in certain sectors, such as health. Guidelines for PPPs in South East Asia are described in a publication by ERIA (Zen & Regan, 2014). PPPs between public TVET institutes and industry are normally of a smaller scale, often in the form of pilot projects (e.g., CDRI, 2018; Abalena, 2009; Dakchyata, 2018).

South Asian experiences with PPPs in education and training are recorded in an ADB study. The study distinguishes types and trends in partnerships and also introduces the concept of “maturity” in PPPs for education and training. It also addresses various financing policies and arrangements from the perspectives of the government and the private sector. The recommendations for an enabling framework include necessary reforms at policy level and within the political economy, public financial management (fiscal risks and value for money), access to long-term finance, an enabling environment and the institutional capacity to design, deliver, monitor and evaluate (ADB, 2017c).

Non-institutional approaches to PPPs towards youth employment programmes in low- and middle-income countries are described by the RAND Corporation (Glick, Huang & Mejia, 2015) and also look at skills training, entrepreneurship promotion, employment services and wage

and employment subsidies. The study also makes the case that public intervention in skills development programmes is caused by perceived market failure and equity concerns while private sector engagement is driven by government failure. The study finds that most of the successful partnerships are driven by multinational companies. It also concludes that for entrepreneurship and the informal economy alternative forms of collaboration are required, which include micro-financing mechanisms and the engagement of NGOs.

3.7. Business and industry collaboration in TVET for work-based learning

Many studies are addressing the introduction, implementation and experiences of work-based learning (WBL) in lower- and middle-income countries.

Often these models are based on or inspired by models common in Germany, Switzerland and Austria. The development partners from these countries at times consider their dual vocational training systems as an “export product” (Euler, 2018b). Euler makes the case that there are limitations to “exporting”. The study provides an elaborate analysis of the various components of the dual system that need to be in place and describes the contextual differences in “exporting” and “importing” countries. Many of these are related to the history, the culture, the economic and political context and the fact that countries which have a more institutionalised or “advanced” system of dual vocational training took a long time to achieve the current stage of development.

A study on WBL in the context of development cooperation (Jaeger, 2016) presents a number of scenarios and approaches to piloting the system in lower- and middle-income countries as show in Table 4. It is argued

that understanding the existence, purpose and context of WBL in developing countries

is important for developing successful interventions.

Existence, purpose and context of WBL	Comments on applications and critical success factors
WBL as professional induction programmes	Mainly focusing on soft skills rather than technical skills
The existence of “pioneer firms” (innovative companies)	Innovative companies with the vision, need, and financial capacity to invest in dual training
The existence of industry associations and clusters	They will share the recognition that skills development and dual training is a common concern
The existence of innovative training institutions	These are experimenting with cooperative and company-based training
Traditional apprenticeships which exist in the informal sector	It is noted that these should be accompanied by more classroom training (especially in developing countries in Asia and Africa)
Dual TVET as a part of a national TVET policy	It is noted that being part of a national TVET policy is a good start but cannot function well if the private sector is not on board.

Table 4: Different approaches to piloting WBL (Adapted from Jaeger, 2016)

A comparable analysis (Strahm et al., 2017) is provided from the Swiss perspective and describes success factors and challenges of exporting the Swiss dual system. The study compares the education policies and the economic performance of countries and regions and warns that success can only be achieved by a long-term commitment on behalf of all partners and by accepting that nation- or sector-wide implementation cannot be achieved with a short-term perspective.

A number of guidelines and handbooks on how to put business and industry collaboration in TVET into practice, including through various forms of WBL, have been published, especially by or in cooperation with GIZ in a number of countries, including GIZ Guideline (2016), Down to Earth (2017), as well as a guide focusing on private companies (DEG, 2018).

The literature shows that even now little is known about the responsibilities and the financial models of WBL. For example, a research presenting a cost-benefit analysis of the dual training in the Philippines (Mada, Almeda & Albis, 2016) shows that such models are highly nationally contextualised and need to be aligned with other financing mechanisms, policies and taxation laws. Other studies show that apprenticeships in low- and middle-income countries are sometimes not based on an equitable model and can lead to diversion of labour legislation or exploitation of apprentices as “cheap labour” (Lythe, 2017).

3.8. Business and industry collaboration in TVET from a regional perspective

The topic of business and industry collaboration in TVET is also relevant in

17 An SMK (Sekolah Menengah Kejuruan) is a vocational high school in Indonesia.
 18 <https://psmk.kemdikbud.go.id/konten/4064/apresiasi-smk-link-and-match-industri-unggulan-dan-kompeten>
 19 Piloting National Apprenticeship Programme in Indonesia (2017–2019)

a regional context as ASEAN has a large regional labour mobility. A number of sectors/industries have developed regional common competency standards, for example in tourism, construction, garments/textiles and welding. The development of these standards is often driven by a regional confederation of employers or the industry. The ILO is one of the multilateral drivers of the development of these standards and has documented them for the construction sector (e.g., ILO, 2015; 2016). Australia is the main driver of regional competency standards for the tourism sector (ASEAN, 2014).

The issue of regional and international labour mobility also has implications on the motivations of industry to invest in partnerships. For example, Thailand, Singapore and Malaysia are net receivers with 6.5 million migrants in 2015. Cambodia, Lao PDR and Myanmar are the main

out-migration countries within ASEAN (Testaverde et al., 2017). However, labour migration/mobility goes beyond intra-ASEAN. For example, it is estimated that in 2015 1.8 million workers (land-based, i.e., excluding seafarers) from the Philippines were abroad, of whom 64% were in the Middle East (Asis, 2017).

Regional policy initiatives are also described in the literature, for example, the creation of an ASEAN TVET Development Council (TESDA, 2018), which is also to include industry representatives from the ASEAN Business Advisory Council and the ASEAN Confederation of Employers, as well as representatives from governments and workers' unions. The ASEAN Confederation of Employers (ACE) developed a Framework for Skills Development, called Manila Declaration, during its regional conference in April 2018 and plans to follow it up with implementation in the AMS. (ACE, 2018).

4 Country Profiles



4.1 Cambodia



4.1.1. General context

Cambodia has attained the status of a lower middle-income country with a GNI per capita reaching US\$ 1,230 in 2017 and a population of 16 million (2017). It has sustained an average growth rate of 7.7% between 1995 and 2017, the sixth fastest-growing economy in the world. GDP growth in 2018 and growth projections until 2021 remain stable at around 6.8%. Poverty continues to fall in Cambodia, albeit more slowly than in the past. According to official estimates, the poverty rate in 2014 was 13.5% compared to 47.8% in 2007. About 90% of the poor live in the countryside. Around 4.5 million people remain near-poor, vulnerable to falling back into poverty when exposed to economic and other external shocks. Despite

these positive developments, Cambodia still faces a number of development challenges, including the need for good quality public services, improved business environment, better land administration and natural resources management (World Bank, 2019a).

The main sectors of the economy are tourism, agriculture, national resources, garments and construction. In terms of industrial sectors, garment production, construction and food and beverage processing are the main contributors to the GDP. In 2017, 26.71% of the employed in Cambodia were active in the agricultural sector, 27.02% in industry and 46.28% in the service sector. This represents a remarkable change from 2007 to 2017 as shown in Table 5.

Sector	Employment (2007)	Employment (2017)	Contribution to GDP (2007)	Contribution to GDP (2017)
Agriculture	70.88%	26.71%	29.7%	23.38%
Industry	9.59%	27.02%	24.94%	30.88%
Services	19.53%	46.28%	38.51%	39.67%

Table 5: Employment and contribution to GDP (2007 vs. 2017) per sector²⁰

20 https://www.indexmundi.com/cambodia/gdp_composition_by_sector.html

4.1.2. Brief introduction to TVET

TVET in Cambodia includes all forms of learning with a major technical or vocational component. This comprises formal technical or vocational education, whether in school, college, university or work setting, formal training programmes, less formal and more informal learning while working, and other forms of learning which may be self-directed or involve peer learning. However, the main forms of TVET are formal TVET delivered by public TVET institutions, non-formal TVET, which includes any form of training offered by private providers, NGOs but also provincial training centres, Vocational Training Centres (VTC), and in-company training programmes offered by or in combination with business and industry (SEA-VET, n.d.)

The TVET National Policy (2017–2025) is the roadmap for developing an effective system for skills development in Cambodia. Based on the policy, the Ministry of Labour and Vocational Training (MLVT) and its Directorate General of Technical and Vocational Education and Training (DGTVET) are currently developing, updating and implementing the TVET system at all levels. The TVET National Policy identifies a list of challenges in the Cambodian TVET system including the desire to foster public-private partnerships (PPP).

The key elements of the TVET National Policy are:

- To improve TVET quality to meet national and international demands;
- To increase equitable access to TVET for Cambodia's "employment" generation (the population between 18-65 years of age);
- To promote PPPs and aggregate resources from stakeholders to support the sustainable development of the TVET system; and
- To improve the governance of the TVET system.

In addition, the National Employment Policy, NEP, (2015–2025) and its Action Plan are relevant in the TVET context. NEP aims to improve the dignity and livelihood of the Cambodian people through decent and productive employment. It was launched in line with Cambodia's Industrial Development Policy (2015–2025). Its goal 2 in particular focuses on enhancing skills and human resource development and its objective 2.3 on improving the relevance of education and TVET to labour market needs. Objective 2.3 emphasizes the establishment of mechanisms through which employers can contribute to better job-relevant skills. The NEP Policy outlines specific measures aimed at business and industry:

- Develop sector-based approaches in education and TVET for higher level skills in priority sectors;
- Strengthen and promote connections between education and TVET providers with business and industry sectors to reduce skills gaps;
- Encourage work-based learning, promote internships and apprenticeships;
- Promote and encourage business and industry to play an active role in providing inputs to policy formulation, skills development, training delivery and financing training.

In terms of governance, DGTVET is the main authority in charge of TVET in Cambodia. However, the National Training Board (NTB) is the decision-making body of the TVET sector in Cambodia. It approves policies, sets programme objectives and establishes measurable goals. The members of NTB consist of representatives from different ministries as well as from business and industry, employees, training providers, international organisations and non-government organisations. NTB, which consists of representatives from 14 ministries and training institutions, is responsible for policy direction and coordination. NTB has a coordinating function and assumes

the leadership role in linking national training programmes to the needs of the economy guided by the National Strategic Development Plan (NSDP). DGTVET acts as the Secretariat to NTB but needs strengthening to carry out its secretariat functions. According to findings from interviews, NTB has been relatively weak in the past but has regained momentum. Other relevant government players in the TVET system include the National Employment Agency (also under MLVT) and the Ministry of Economy and Finance, which is in charge of the two funding mechanisms to supplement the block funding for TVET institutions by DGTVET.

Cambodia has commenced financing skills training through a new mechanism – the Skills Development Fund (SDF). Until very recently, the Voucher Skills Training Program (VSTP) was the only mechanism in place to finance the TVET system. The programme is implemented by the government and provides direct financing to eligible TVET providers. The new funding mechanism, SDF has disbursed its first funds in 2019 for selected projects on the basis of a competitive application process. However, for now SDF is also mainly funded by the government and managed by the Ministry of Economy and Finance. The VSTP and SDF may eventually be integrated.

4.1.3. Developments in business and industry collaboration in TVET

Collaborations between the TVET system and business and industry are not yet formalised in legislation, although NEP emphasizes the need for more effective partnerships. Nevertheless, the ongoing ADB-funded project,²¹ which aims at strengthening the TVET system, consists of various pilots of business and industry collaboration within the TVET system at

national, sectoral and institutional levels. The activities include standards framework development, curriculum design and competency assessment in courses such as ICT, construction, electrics, machinery and welding. In addition, MLVT cooperates with business and industry on:

- Policy development (e.g., NEP and TVET National Policy);
- Providing internships and job opportunities to graduates;
- Development of standard training packages (competency standard, competency-based curriculum and competency assessment package);
- Providing tools and equipment to TVET schools;
- Providing information about skills needs.

Sector Skills Councils (SSCs) have been established for the purpose of linking business and industry with TVET in Cambodia. SSCs are the interlocutors between industry and TVET. However, at the moment there is no comprehensive system or coverage of SSCs across sectors and industries although four SSCs were in place by February 2019 in the following sectors: construction, mechanics, electrics and electronics. Some of the SSCs in place have developed occupational standards and curricula, which are submitted for approval by MLVT and subsequently for adoption within the national TVET system. Prior to the establishment of SSCs, ILO supported a number of Industry Advisory Groups, which can be seen as its predecessors and are now being integrated into the system of SSCs. More specifically, the ADB project (through output 3) aims at achieving an increased involvement of employers in TVET delivery. The following are the foreseen outputs of the project:

- Sub-output 3.1: Strengthening internship programmes

- Sub-output 3.2: Establishment of Sector Skills Councils (SSCs)
- Sub-output 3.3: Establishment of Centres of Excellence (COEs)

TVET institutions are making progress in implementing business and industry collaboration in TVET. In many cases the initiatives take the form of agreements between TVET institutions and large (and often foreign) companies where the industry partners invest in dedicated infrastructure in the TVET institution, provide internships and are provided with access to graduates for recruitment/employment. The TVET institutions tailor training programmes where possible to the needs of the industry partners. Some examples include the partnerships between the Industrial Training Institute (ITI) in Phnom Penh with ARM Cambodia (Ford) in the automotive sector, Tasaki (Thailand) and the China-ASEAN Innovation Centre, or the National Polytechnic Institute of Cambodia (NPIC), which has agreements in place with Samsung (electronics), Hyundai (automotive) and Chip Mong Insee (cement).

The Cambodian Federation of Employers and Business Associations (CAMFEBA) is an overarching body representing and safeguarding the rights and interests of employers in term of labour issues and plays an important role in the current TVET reform processes. It has established a TVET subcommittee to support TVET reform activities and to represent the interests and commitments of employers towards TVET. A recent development is that CAMFEBA has committed to (technically) supporting SSCs. This has been agreed in an MoU between CAMFEBA and DGTVET.

There are some examples of business and industry-driven initiatives in engaging the TVET sector. One of them is the Garment Manufacturers Association of Cambodia (GMAC), an employers' organisation catering to the apparel industry. GMAC launched the Cambodia Garments Training Institute (CGTI)

in 2017, which aims at training medium- and higher-skilled workers in the garment industry through diploma programmes and a range of short courses. Employers can send their staff for training on the condition that they employ them and pay at least the minimum wage. The centre was initially thought to be a joint venture between GMAC and DGVET, but in the view of GMAC, the negotiations went too slow and ultimately GMAC decided to take full responsibility of the centre, including financial responsibility. The CGTI is financed by the members of GMAC through a mechanism comparable to an internal "training levy", and it also received a commercial loan from "Agence Française de Développement" (AFD). According to GMAC, CGTI is now financially sustainable. Although the joint venture with DGVET did not materialise, the centre and its qualifications are fully recognised by DGVET. The CGTI is currently fully industry-driven.

There are furthermore developments in business and industry collaboration in TVET in the tourism sector. The tourism sector is the largest contributor to Cambodia's GDP in the service sector and, together with the agriculture and garment sectors, the main driver of Cambodia's economy. The Ministry of Tourism (MOT) has a relatively unique approach to skills development as it has established the Department for Training for the Tourism Sector. The Department coordinates and initiates activities that are often the mandate of SSCs or other industrial bodies. As stated by MOT, Cambodia needs to create 1,000,000 more jobs by 2020 if it wants to achieve the growth projections in the tourism sector. Furthermore, the Ministry aims at training 50,000 additional skilled workers (the current capacity is around 2,000 per year) and setting up two national tourism training schools (one in Phnom Penh and one in Siem Reap). Discussions with AFD on the latter are currently in the final stages. Furthermore, MOT wants to support more business and industry cooperation for tourism and hospitality training and has set up a dedicated task force.

21 ADB. Technical and Vocational Education and Training Sector Development Program

In addition to the Ministry, a number of other initiatives exist in the tourism sector. For example, various employer and industry organisations such as the Cambodia Restaurants Association and the Cambodia Hotel Association are implementing small-scale apprenticeship programmes. Also, many private TVET providers, development partners or NGOs have implemented initiatives that are worth mentioning. One of them is the “Letonle” school,²² also supported by SwissContact, which takes 60 apprentices per year. Don Bosco Hotel School²³ in Sihanoukville and Pour un Sourire d’Enfant (PSE) are other such initiatives. Private tourism and hospitality schools also operate in Cambodia,²⁴ applying various forms of industry-based or cooperative training.

In terms of practical training, internships are the predominant modality of business and industry collaboration in TVET in Cambodia. An ILO study (Lythe, 2017) provides a situational analysis of TVET internships (institution-based) and apprenticeships (industry-based) in Cambodia. The study identified the complexities and issues in Cambodia, also in relation to, for example, labour laws, the nature of certain industries and societal issues. The study also makes various recommendations pertaining to the protection of apprentices against exploitation by their employers. The study

found evidence that in 2017, some 90 industry-based apprenticeship programmes were operational in and around Phnom Penh, although the study also assumed that more were actually in place. Examples can be found mainly in the tourism and hospitality sector, for example PSE Cambodia,²⁵ which runs four schools in Cambodia. The PSE centre is fully recognised by MLVT as a training provider and is currently also the only tourism and hospitality apprenticeship training assessment centre accredited by MOT. In terms of the legal set-up, the apprenticeship regulation is nested in the Labour Law (1997). Furthermore, MLVT has issued a “Prakas” (proclamation) on apprenticeships in 2015.

Cambodia is on the path of modernising its TVET system and is showing some unique examples of good practice. The Cambodian TVET system is still in the process of modernisation and strengthening. A major overhaul supported by the ADB is laying the foundations for a modernised TVET system. In addition, Cambodia is showing many good examples of business and industry collaboration in the public TVET system. Further, private institutions and NGOs are implementing projects that can be replicated. The garment sector shows an example of good practice of a BMO taking the lead in skills development.

22 <http://letonle.org/>

23 <http://donboscosihanoukville.org/>

24 For example, <http://acac.edu.kh/>

25 <https://www.pse.ngo/high-quality-vocational-training-prepare-everyone-working-life>



4.2.1. General context

Lao PDR relies on a resource-based economy, mainly mining, hydropower and forestry. In the past years, its growth rates have ranged between 7 to 8% annually. In the years 2014–15, GDP growth was recorded at 7.7% (MPI, 2016). Most of the growth takes place in the natural resource sector, which has not been accompanied with a significant increase in labour demand. The main employment-generating sectors include agriculture, construction, manufacturing (garment, furniture) and services (hospitality and tourism). In 2016, almost 70% of the working people were engaged in agriculture, and the rate is expected to decrease to 63.3% in 2020. The other main sectors include manufacturing (7%) and services (23%), which are expected to gradually increase by 2020 to 12.7% and 23.7% respectively (MPI, 2016). According to the ADB (2017a), the economy is slowly diversifying into retail and wholesale services, tourism, and construction but the country’s large untapped hydropower potential and mineral endowments are expected to continue underpinning economic growth in Lao PDR in the near future.

In terms of the business landscape, the vast majority of companies in Laos are family-

run micro, small and medium enterprises (MSMEs). Production of these MSMEs is focused on the domestic market with local ownership being the most common. Foreign ownership is more frequent of larger companies, but these make up a fraction of Lao’s business sector. Most companies sell their products in the domestic market as only a small number are able to meet international quality standards, identify key information about foreign export markets and meet necessary productivity levels. Small and medium-sized companies in Lao PDR are major employers, but their productivity is relatively low. Data on the number of micro-sized firms and companies operating in the informal sector is not available. According to a World Bank enterprise survey, 13% of the interviewed small, medium and large companies pointed to inadequately trained workers as one of the main constraints to a conducive business environment. However, only 7% of firms offered formal training to their workers in 2016, which is a significant decline from 29% of companies in 2012 (World Bank, 2016). Lao PDR has, therefore, significant opportunities to strengthen its business sector in order to increase its productivity and investment in human resource development.

4.2.2. Brief introduction to TVET

To understand the potential for business and industry collaboration in TVET, it is important to consider that the formal TVET sector in Laos is relatively small. In 2017–2018, there were 46 public and 67 private training providers in the 17 provinces of Laos. With just over 700,000 students enrolled at tertiary education (UIS),²⁶ the number of students in the TVET sector remains comparably small. Table 6 below shows the number of students enrolled in TVET between 2011 and 2018 in both public and private TVET institutions. There is no

data freely available on the non-formal and informal TVET sectors.

The two main ministries in charge of TVET in Laos are the Ministry of Education and Sports (MOES) and the Ministry of Labor and Social Welfare (MOLSW). The TVET Department under MOES is mandated to supervise, support and promote formal TVET. There are 23 TVET institutions registered under MOES, while 11 training institutes at a national level, including four private centres, fall under MOLSW.²⁸ There are training institutions under 11 other ministries and public organisations.²⁹

Level	Academic years						
	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17*	2017–18
Certificate	1,358	2,129	3,114	3,193	1,674	782	2,490
Diploma	9,187	7,644	10,061	13,169	16,575	19,568	21,661
High diploma	23,910	23,047	30,905	33,916	42,045	39,885	38,499
Total	34,455	32,820	46,080	50,278	60,294	60,235	62,650

Table 6: Enrolment figures per level, 2011–2018²⁷

26 <http://uis.unesco.org/country/LA>

27 Sources: TVET-EMIS 2011–2018. *The 2016–17 data are from TVET-EMIS for public TVET institutions under the supervision of MOES, while data for private TVET institutions are from MOES-EMIS.

28 These include 10 Labour Skills Development Centres and the Lao-Korea Skills Development Institute. The TVET system comprises of three levels including certificate level (I to III), diploma (IV) and higher or advanced diploma (V). The centres provide training at levels I-III, while the Institute provides training at levels IV-V.

29 Apart from MoES and MOLSW, there are 11 ministries as well as other organisations providing TVET including Ministry of Public Health with one University of Health Science and one school for nurses; Ministry of Finance with three training institutes; Ministry of Agriculture and Forestry with five specialised training institutes; Ministry of Information and Culture with five training institutes; Ministry of Justice with five training institutes; Bank of Lao with one training institute; Lao Women's Union with three training centres; Lao Revolutionary Youth Federation with 10 training centres. Source: ADB-MoES 2010.

The TVET sector is guided by the following policies and development plans:

Policy	Brief overview
8th National Socio-Economic Development Plan (2016–2020)	The 8th National Socio-Economic Development Plan places high priority on the development of education as a pillar of society, supporting human resource development, and regards people as decisive elements in development. It specifies a target focusing on developing the workforce in the areas of “building/construction, car mechanics, electrical engineering, civil engineering, mining engineering, geographical engineering, etc.,” and on creating opportunities for students to enrol in TVET (p. 118). There is, however, no specific mention of the role of businesses in TVET.
Education and Sports Sector Development Plan (2016–2020)	The Education and Sports Sector Development Plan is the overarching policy document guiding education, including TVET. It focuses primarily on expanding access and improving the quality of TVET. In terms of business engagement, it sets out objective number 2 which is “to mobilize social and business agencies to contribute to vocational education and training development” (p. 63).
TVET Strategic Plan (2006–2020)	The TVET Strategic Plan sets the overall framework for TVET development in Lao PDR. Published in 2007, the plan highlights the establishment of the National Training Council (NTC), NTC – Permanent Office (NTC-PO) and Trade Working Groups (TWG) and a “substantial contribution of the economic sector (LNCCI, enterprises) ... in the development of TVET” (p. 8). The overall vision and goals focus, however, on increasing access and provision of TVET and strengthening the TVET system through a number of other interventions. The role of the business community is not clearly identified.
TVET Development Plan (2016–2020)	The TVET Development Plan is a comprehensive document addressing all pertinent aspects of TVET in Lao PDR. The Plan provides an overview of key socio-economic aspects of the country and relates them to the developments in the TVET sector. The Plan assesses business and industry collaboration in TVET as “still in a critical stage” (p. 24). It states that there is no significant progress in cooperation between companies and the public sector at a political level with the main national organisation charged with facilitating the dialogue – the National Training Council (NTC) – still weak. The logframe of the Plan makes reference to promoting public and private partnerships (PPP) in TVET development (2.3) and elaborates sub-objectives and related indicators which focus on strengthening Dual Cooperative Training (DCT).

The TVET law, passed in 2013, establishes the principles, rules and procedures for the organisation, regulation, management and monitoring of TVET in Laos. The law defines TVET as formal, non-formal and Integrated Vocational Education and Training (IVET).³⁰ The law does not make any specific reference to collaboration between the business sector and TVET. Recently, the Ministry of Education and Sports (MOES) completed drafting a revised TVET law, which is expected to be endorsed by the National Assembly in the first half of 2019. At the same time, the Labour Law (2013) regulates some other aspects of skills development. The law also does not make any clear reference to collaboration between training providers and the business community.

The main national organisation charged with promoting collaboration between companies and the TVET sector in Laos is the National Training Council (NTC), which was established in 2002. The Council comprises of 24 representatives from relevant ministries and is chaired by the Deputy Minister of Education. The Permanent Office of the National Council for TVET and Skill Development (PONC-TVET & SD) is responsible for the legal and regulatory framework for skills development in Laos, among other responsibilities. NTC was initially established as a mechanism to facilitate cooperation between line ministries engaged in TVET. Currently, however, the Council lacks leadership and resources to fulfil this role and engage the business sector. Its relevance for shaping the strategic direction of the TVET system is therefore limited.

One of NTC's mandates is the establishment of Trade Working Groups (TWGs). TWGs were set up as technical units of NTC and are charged with advising the NTC on the development of training standards, regulations related to examinations, skills assessments and curriculum development. Figure 1 shows the institutional set up of

the NTC and TWGs. There are 12 TWGs in 12 occupational sectors which include public TVET and company representatives. TWGs have 11 to 15 members with around 60% of members being representatives of businesses, while 40% being directors or deputy directors of TVET schools and colleges. However, TWGs are currently less active than initially anticipated. An unpublished assessment of the TWGs conducted for GIZ indicates that TWG members have a limited understanding of their roles and responsibilities, the activities of the TWG are not as frequent as expected and there is limited communication between the NTC and some of the TWGs. In fact, TWGs are largely inactive and have little impact on national policy issues.

At school level, school advisory boards were established to include representatives from the local government, business sector and ethnic groups but due to limited school-level capacity their impact remains limited.

To finance the TVET system in the country, MOLSW introduced a concept for a Skills Development Fund in the Labour Law (2013). The Law states that employers have "direct obligation to provide training [...] by setting aside an annual dedicated fund of 1% from the annual salary or wages" (Article 28). The Fund has been approved but is currently not operational. In parallel, MOES has proposed the establishment of a TVET fund to finance skills training. The difference or complementarity of these funds is currently unclear. There is also a reluctance on the part of the business sector to contribute to any fund because of a lack of transparency in its management. There is furthermore a perception among some businesses that training provision is the responsibility of the government and that there should be an incentive for companies to invest in trainings.

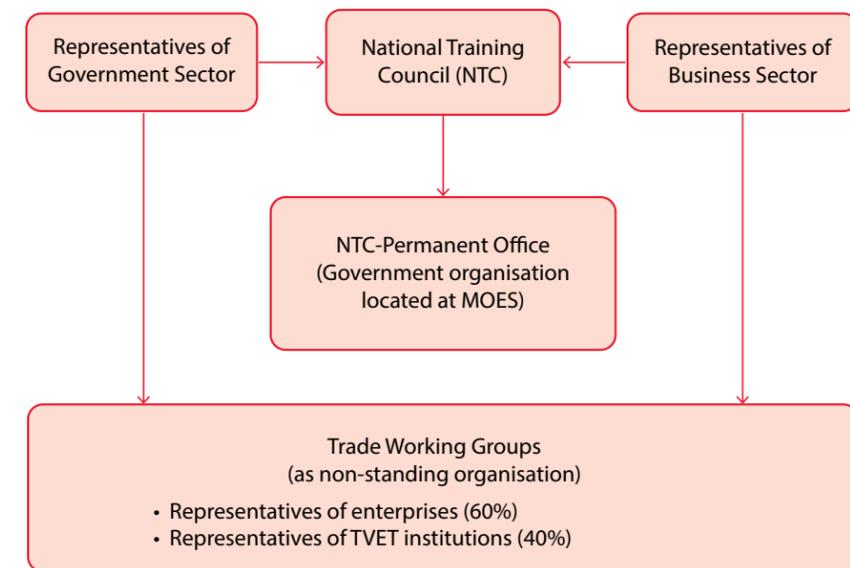


Figure 1: Proposed set up of NTC and TWG³¹

4.2.3. Developments in business and industry collaboration in TVET

The coordination between the lead ministries in charge of skills development in Lao PDR, MOES and MOLSW, is very weak and poses a challenge to the systematic involvement of business and industry in TVET. This seems to have been the status quo for many years and is well known among most TVET stakeholders in the country. Exchange in the form of meetings attended by representatives from both ministries takes place, but sustained cooperation remains limited. The parallel workings of the two ministries are most evident in the development of two sets of occupational standards – the National Skills Standards developed by MOLSW and the Occupational Competency Standards established by MOES. Equally, the Skills Development Fund approved under MOLSW appears to be a similar financing mechanism as the TVET Fund proposed by MOES. Both funds are currently not operational, and stakeholders seem to have little understanding of the difference between the two funds. Neither of the ministries appears

to have a clear vision or approach to engaging business and industry in TVET at this time.

The institutional structure for engaging the business sector in TVET is established but remains weak as well. The NTC was established with the aim of improving the quality and relevance of TVET for employers. It has been the main mechanism for engaging the business sector in guiding TVET policy development in Lao PDR. Equally, the TWGs have been set up as technical advisory units for the NTC tasked with the identification of training needs in the business sector, development of occupational standards and curricula as well as supporting training delivery in their respective sectors. The setup of school advisory boards was targeted at improving the linkage between companies and TVET providers. The structure for engaging companies at all levels seems coherent but is disjointed, under-resourced and partly donor-driven. There are furthermore overlapping or unclear responsibilities, for example, between the roles of the TWGs and the Vocational Education Development Institute (VEDI) in developing and revising curricula. Though the institutional set up for engaging the

30 There are currently 11 IVET schools, which provide an entry point for non-formal learners into formal TVET.

31 Source: Overview on TWGs, unpublished

business community exists, the take up from the business community is weak at this stage.

Limited progress in engaging companies in TVET is made by donor-funded projects.

One of the main development partners engaged in establishing a system for collaboration between TVET providers and companies in Lao PDR is GIZ. GIZ has been supporting the development of the Dual Cooperative Training (DCT) – an adapted version of the German dual system – since 2013. In the first phase of the GIZ-VELA³² programme (2013–2018), six schools benefitted from the programme and ten occupational programmes, including two full packages (occupations, standards, curricula, training calendar, assessment methodologies), were developed. The current phase of the programme works with four schools to strengthen the DCT programme. For example, Luang Prabang Technical and Vocational College collaborates with 15 hotels and restaurants under the Provincial Hotel and Restaurant Association as a part of the DCT programme in food and beverage service and production. Equally, the Dongkhamxang Agriculture Technical College and the Vientiane Province Technical College collaborate with 11 companies in the DCT farming programme. At policy level, GIZ supported MOES in the drafting of the Concept and Implementation Framework (2016–20) for DCT.

One of the TVET institutions with a track record of business collaborations in Lao PDR is the Lao-German Technical College (LGTC). LGTC was established in 1964 with the support of the German government and currently provides courses in five occupations.³³ The college works with a number of companies such as RMA, Phu Bia Mining, BHS Corrugated, Nam Theun 2 Power Company (NTCP), Kolao. In 2017, LGTC collaborated with Toyota to provide equipment and teaching materials,

scholarships to train teachers in Thailand and input to the automotive curriculum. Around 30 students benefit from the programme annually. Similarly, LGTC works with Kubota, which provides teaching materials, equipment and training for students and teachers. Thirty-five students benefit from the programme annually. LGTC is one of the most well-established TVET institutions in Laos, which can be partly attributed to the financial support it receives from its development partners. There are other development partners such as ADB and Swiss Agency for Development and Cooperation (SDC) who work to engage companies with the TVET sector at different levels.

Donor support is prevalent in the TVET sector with most stakeholders receiving some form of support. There is an overwhelming sense of donor financing being a matter of course and some reluctance from the business sector to invest in training given the available funds for TVET among the donor community.

The main national body representing the business sector in Laos is the Lao National Chamber of Commerce and Industry (LNCCI).

Its capacity to facilitate cooperation, however, remains limited. LNCCI was established in 1989 and currently has 27 members consisting of business associations and sectorial groups. LNCCI's mandate is to identify problems and concerns of its members and make sure that they are presented to the government. The LNCCI Strategic Private Sector Development Plan (2018–20) states that the Chamber will provide entrepreneurship training and implement business management programmes involving, among others, TVET schools (2018:18). Due to multiple changes of leadership and financial constraints, however, the capacity of the chamber to fulfil this role is currently weak. The LNCCI board is reportedly small and consists of members who are often occupied with running their

own businesses. LNCCI is represented in the NTC-PO, but the weak capacity of both institutions poses an obstacle to effective collaboration.

The composition of the business sector in Lao PDR is also less conducive to investment in skills training.

Given that most of Lao businesses are family-run MSMEs, many of which operate in the informal sector, there is a lack of capacity and resources to invest in in-service training of workers. LNCCI's member associations do not operate as the voice of industry in the same sense as in other countries. TWGs tend to be less active due to limited finances and members' competing business engagements. There is also a reluctance by small and medium businesses to invest in training due to a high worker turnover, especially among low skilled workers. Larger companies often provide in-house training to their workers without relying on public TVET providers. According to a LNCCI study, more than half of the surveyed enterprises³⁴ conduct in-house training, with relatively few companies seeking external training providers (2016). Business investment in TVET as a part of corporate social responsibility (CSR) is not

yet clearly developed. There is currently no regulation covering the provision of work-based learning opportunities for vocational students in Laos. Schools often seek placements for their own students relying on existing connections with unregulated internships varying in length between 10 weeks to three months depending on the occupation. In some sectors, the larger share of state-owned enterprises reportedly makes collaboration more challenging.

Overall, there is an understanding among TVET stakeholders of the importance of business engagement for improving the relevance of TVET in Lao PDR, but ongoing collaboration is limited.

Efforts have been made to establish a system for business consultations in TVET development with the setup of the NTC and TWGs. The system, however, lacks the coordination, capacity and resources required to fulfil its role. The ongoing collaborations are largely donor-driven and remain one-off and/or at a small scale. Companies with the capacity to provide in-house training tend to rely on their own capacities rather than engage with TVET providers. Work-based learning remains ad hoc and unregulated.

32 Vocational education in Laos (VELA)

33 Electrical-electronics, welding and plumbing, metal machines, heavy and agro machinery and automotive

34 404 enterprise owners and managers were surveyed

4.3 Myanmar



4.3.1. General context

After years of military rule, Myanmar is moving from a centrally directed to a market economy. The country has embarked on the process of economic liberalisation with significant economic growth estimated at 6.8% in 2017/18 (World Bank, 2018). The economic impact of the political instability in the Rakhine state and the possible removal of the Generalized System of Preferences (GSP), which allows Myanmar preferential access to the EU markets, could however have a negative impact on Myanmar's economic performance going forward (World Bank, 2018). In terms of social indicators, the Myanmar Living Conditions Survey 2017 shows the positive impact of liberalisation on the Myanmar economy, living standards and poverty reduction. The number of households that used electricity for lighting rose, for example, from 3.4 million in 2015 to 4.5 million in 2017. The number of consumer goods, including mobile phones, has risen significantly in the past years (World Bank and UNDP, 2018).

Despite these positive developments, the business sector in Myanmar remains driven by small and informal businesses with SMEs playing a pivotal role in the country's economic development. Some 90% of all businesses in Myanmar are classified as

SMEs. Furthermore, most companies cite poor access to finance and skilled worker shortages as the main obstacles towards operating a business in Myanmar. According to an enterprise survey by the World Bank (2016), poorly educated workers have been named as one of the top obstacles cited by 15.8% of surveyed top managers. Despite worker shortages, most SMEs are not familiar with the TVET system and do not cooperate with public training providers (Deval, 2015).

4.3.2. Brief introduction to TVET

After years of stagnation, the TVET sector in Myanmar is experiencing positive developments, including increased access through the opening of new schools and the introduction of new courses as well as improvements in quality through capacity development of TVET managers, teachers and support staff. Reforming the country's TVET system is increasingly a priority given the growing calls from the business sector for more adequately skilled labour. The opening up of the Myanmar economy to foreign investment is a contributing factor for TVET's prominence on the political agenda.

The responsibility for the TVET system is currently shared between a number of ministries. The main responsibility for formal TVET lies with the Department

of TVET (DTVET) under the Ministry of Education. The Ministry administers 35 Government Technical High Schools (GTHS) at certificate level and 23 Government Technical Institutes (GTI) at diploma level. It further oversees five vocational training institutes³⁵ and two teacher training centres.³⁶ The Ministry of Industry is responsible for six Industrial Training Centres (ITCs). In total, 13 ministries are responsible for training providers, which makes a systematic collaboration with the business sector difficult. Access to recent information on the scope of different ministries' training provision is limited.

The National Education Strategic Plan (2016–21) is the main strategic document guiding education and training in Myanmar. The Plan has been developed by the Ministry of Education (MOE) following a comprehensive education system review and drafting process of over three years. The Plan outlines the need to improve the quality of TVET to ensure sustained economic growth of the country. It refers to three specific aspects required to strengthen TVET, namely widening access, improving quality and strengthening management and coordination of the system. The Plan recognises the need for demand-oriented skills development but does not make any clear reference to company engagement and industry partnerships. It proposes an integrated TVET programme with five supply-driven components focusing on improving access to skills training. The Plan is indicative of the current development priorities, which focus on developing regulations, strengthening management and improving access by developing multiple pathways into TVET. Company collaboration is not clearly pronounced as a mechanism for improving quality and relevance at this stage.

The legal framework for TVET is currently under review. The TVET Law has been drafted but is in the fifth round of revisions by the MOE. This law foresees greater cooperation and planning between relevant public agencies as well as the establishment of institutional links with business and industry. More specifically, the Law is reported to foresee the establishment of a TVET Council to be chaired by the Minister of Education and including business sector representatives. The Law further makes provisions for the introduction of a Skills Development Fund to reimburse employers for workers' skills training. The Fund is, however, currently not operational and is regarded as difficult to implement at this stage. Current information suggests that there is no legal framework covering private TVET provision. The Education Law (2015) and the Employment and Skills Development Law (2013) are guiding skills development at the moment. The Employment and Skills Development Law has greatly improved national competency standard development involving business and industry through the establishment of technical committees and strengthened the role and functions of the National Skills Standards Authority (NSSA).

Development partners are supporting the TVET system, which has been undergoing fundamental changes in the past years. The challenges in strengthening the system are multiple, partly due to the divided responsibility among the ministries in charge of TVET. There are capacity deficits at all levels that development partners are working to address. Some development partners in Myanmar are working to facilitate collaboration between companies and the TVET system at different levels:

- GIZ is supporting six Government Technical Institutes (GTIs) and the

³⁵ Singapore-Myanmar Vocational Training Institute (SMVTI), Nyaung Shwe Vocational Training Institute (NVTI), School of Industrial Training and Education (SITE), English Language Proficiency School (ELPS) and Japan-Myanmar Aung San Vocational Training Institute (JMASVTI) to be opened in 2019

³⁶ Technical Promotion Training Center (TPTC) and the TVET Teacher Training Institute (TTTI)

Industrial Technical College (ITC) in Sinde. All of the schools, except ITC Sinde, are located close to industrial zones, which offers the potential for strong collaborations with companies. GIZ is further working to facilitate a collaboration between the MOE and Scania & Octagon for establishing a Commercial Vehicle Technician Training Centre. Scania is expected to provide equipment for commercial vehicle maintenance and company trainers. MOE will be responsible for training facilities and teachers, while GIZ will support the development of relevant curricula.

- The Swiss-funded project Vocational Skills Development Programme (2014–2022) is engaging 2- to 5-star hotels in an apprenticeship scheme under its hospitality training component. The project provides trainees with hands-on experience of the hospitality sector. The participating 5-star hotels provide student salaries. Between 2014–2018, the project is reported to have provided training to 3,000 persons from disadvantaged backgrounds.
- Through the Skills for Trade and Economic Diversification (STED) project implemented by the ILO, the NSSA has worked together with the Ministry of Hotels and Tourism (MoHT), the Union

of Myanmar Travel Association, the Myanmar Tourist Guide Association and the Tourism and Hospitality Training School to develop skills standards for tour guides in the country. This collaboration resulted in a structured system for skills development of tour guides along with competency standards and an agreed qualifications framework allowing for integrating and relating the knowledge and perceptions from industry into government-led agencies and initiatives that have a direct impact on TVET issues relating to tour guides.

Development partners are also supporting the efforts of the Myanmar government to expand access to TVET by establishing (or re-establishing) new training institutes. The Japan-Myanmar Aung San Vocational Training Institute (JMASVTI) is funded by the Japan International Cooperation Agency (JICA) to provide automobile maintenance and electrical courses. It is expected to be opened in 2019. Similarly, the Korea International Cooperation Agency (KOICA) is supporting the establishment of the TVET Teacher Training Institute (TTTI) to provide pedagogical training for TVET teachers. Table 7 provides further examples of the extent to which development partners are providing support to TVET institutes in Myanmar.

Industrial Training Center	Founding Year	Trainees/ Year	Assistance
Industrial Training Center (Sinde)	1979	200	Germany
Industrial Training Center (Mandalay)	2008	180	China
Industrial Training Center (ThaGaYa)	2009	150	Korea
Industrial Training Center (Pakokku)	2010	216	India
Industrial Training Center (Magway)	2011	150	Korea
Industrial Training Center (MyinGyan)	2013	192	India

Table 7: The support of development partners to ITC under the Ministry of Industry³⁷

37 Source: <http://moi.industry.gov.mm/en/content/industrial-training-centers>

4.3.3. Developments in business and industry collaboration in TVET

The TVET system in Myanmar remains supply-driven with ad hoc rather than systematic business and industry collaboration. There is an awareness among stakeholders about the need to involve companies to ensure that skills development responds to the needs of the labour market. There are also first efforts to engage the business community, but cooperation is still rather weak.

Policy dialogues involving the business sector are taking place at policy level. The Government of Myanmar (GoM) has established the Private Sector Development (PSD) Committee, chaired by the Vice President, which consists of five working committees including one focused on human capital building. The Human Capital Building Committee includes representatives from line ministries in charge of skills development and representatives of the business community such as the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) and sectoral associations. The committee works to determine training needs and collaborate across ministries and stakeholders in response to the identified training needs. Under the pending TVET Law, the establishment of a TVET Council is foreseen. The Council is to be chaired by the Minister of Education and include state level education authorities and the business sector in an effort to improve the quality and relevance of TVET in Myanmar.

The main organisation representing business and industry in Myanmar, UMFCCI, is active but has not yet established itself as a clear advocate of collaborations between its members and training providers. The Federation was founded in 1919 and, as of

2017, is representing 75 national federations and associations.³⁸ It provides trainings, information and consultancy services, among others. The Federation is engaged in a number of activities supporting its members, including in the education sector. UMFCCI represents business and industry in a number of policy dialogues, working groups and other engagements. At the moment, however, there does not seem to be a strategy or systematic approach to facilitating sustained collaboration between training providers and UMFCCI's member organisations. There is a clear understanding of the need to link companies with the education sector to address skills mismatch but no comprehensive strategy for systemising involvement in the TVET sector.

Fragmented responsibility for TVET limits opportunities for sustained cooperation. The main national government organisation in charge of TVET is MOE, but there are an estimated 13 other ministries responsible for skills training institutions in Myanmar (Lythe, 2015). MOE has engaged in facilitating collaborations with the business sector through government-to-government agreements that foresee the establishment of training centres in close cooperation with companies as well as direct agreements with sectoral associations and companies (Table 8).

While training provision in Myanmar has been expanding both in terms of student numbers and new TVET institutions, responsibility for TVET remains fragmented, making a coordinated approach to business and industry collaboration in TVET a challenge. At this point, active companies tend to engage directly with TVET schools in the location of their business operations, which might be considered a practical response to the difficulty of grasping the responsibilities within the TVET sector in Myanmar.

38 These include 8 State Chambers of Commerce and Industry, 8 Regional Chambers of Commerce and Industry, 9 Associations of Border Trade Chambers of Commerce, 50 Trade and Services Associations (2017).

Government – Government	
Singapore-Myanmar Vocational Training Institute (SMVTI)	SMVTI was established based on an agreement between GoM and the Republic of Singapore signed in 2014. Initially, 12 industry partnerships were established with the facilitation of the Singapore Embassy in Yangon and the Singapore Chamber of Commerce and Industry. Currently, there are ongoing collaborations with a number of companies, including Mitsubishi Electric Asia Pte Ltd (MEAP) and Peace Myanmar Electric (PME) Holding. These company partners sponsor training equipment and engage in technology transfer in the area of residential air-conditioning at SMVTI. The training provided at SMVTI follows a curriculum developed by the Institute with input from MEAP, PME and other relevant companies.
Government – Business Membership Organisations (BMO)	
Myanmar Garment Manufacturers Association (MGMA)	In 2017, MGMA established a collaboration with MOE/DTVET to provide training of trainers courses. The Garment Skill Development Training 1 is aimed at supervisors and team leaders from member factories. MOE has made available an entire floor of the Government Technical Institute (GTI) at Insein to MGMA. The participants are provided with meal and transportation allowances. MGMA furthermore serves as an NSSA assessment centre.
Government – Companies	
School of Industrial Training and Education (SITE)	GoM has signed a 5-year collaboration agreement with the equipment and solutions provider, Sea Lion Co. Ltd, to establish an institute for advanced industrial technology training. MOE invested in the construction of the facilities and provides teaching staff and management. Sea Lion provided the master planning and detailed planning of the campus, training equipment and is involved in curriculum development, teacher training and assessment. The company closely collaborates with its global partners including FESTO, Felder, EMCO, Bosch, Siemens, among others.

Table 8: Types of GoM agreements establishing collaborations with the industry

Efforts to improve the relevance of TVET through business and industry involvement are ongoing. The National Skills Standards Authority (NSSA) was launched in 2007 in response to investors' and employers' growing calls for better educated workers and as a move towards ASEAN integration. NSSA has developed a competency framework consisting of four levels and drawn up 173 competency standards for selected occupations. The standards have been developed by 15 sectoral committees which include industry representatives. NSSA has further established 112 accredited assessment

centres (see Figure 2) such as the Skills Training Centre (Mandalay), which cooperates with a number of companies. The establishment of NSSA is a positive move towards improving the relevance of skills development based on company needs. The work of establishing NSSA as a self-sufficient institution that engages the business community as partners in skills development, however, is ongoing. Budget, technical and organisational constraints remain key issues that need to be addressed before NSSA is recognised as a deserving partner by the wider business community.

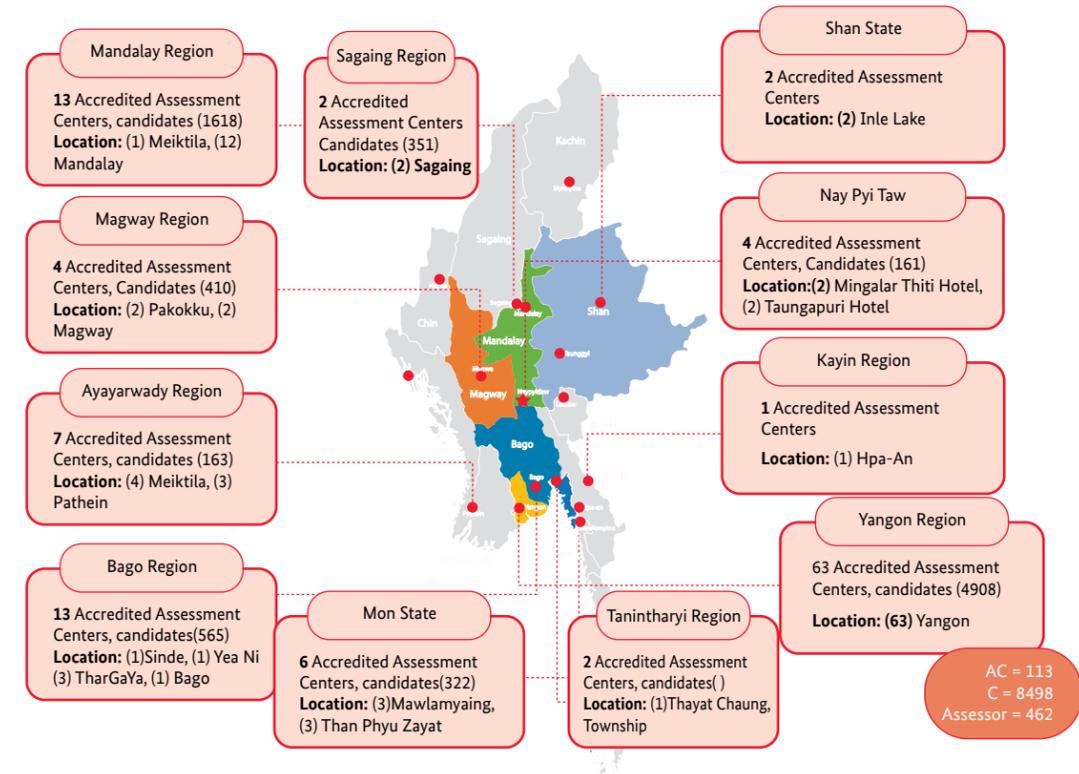


Figure 2. Accredited NSSA Assessment Centres in Myanmar³⁹

There is limited capacity at school level to collaborate with companies. There are some examples of long-standing cooperation between companies and TVET schools. For example, the Skills Training Centre in Yankin has a well-established cooperation with the Thai petroleum company, PTTEP, which provides financial support for trainings and covers the costs of consumable and non-consumable training materials for basic courses in welding, electrical engineering and air-con installation. In general, however, cooperation at school level remains limited. There is a clear understanding among school principals about the mismatch between the training offered in their schools and the skills required by the business sector, but limited capacity often prevents them from building sustained partnerships with companies. The low capacity is both due to limited financial resources and competing priorities. More specifically, Myanmar's recent past has created

a reality where school principals often have to respond to more immediate needs. Under military rule, many of the vocational schools were closed down and have only recently resumed operations. They are only now refurbishing the school facilities and working to re-establish their training centres.

The business landscape in Myanmar is dominated by SMEs that have limited capacity to invest in human resource development. There is generally limited access to reliable data on the number, type and size of businesses that operate in Myanmar. It is estimated that the informal business sector in Myanmar is larger than other developing countries (Main, 2016). Most companies are SMEs that often lack the financial and human resources to provide for in-house or external trainings. Besides tangible resource limitations, there is indication of a prevailing reluctance among companies to invest in

39 Source: Presentation from the Regional Consultation Workshop on Quality in TVET (4-5 June 2018, Bangkok)

training for their employees due to a high staff turnover. At the moment collaboration between companies and the TVET system in Myanmar is largely facilitated by development partners. There are not only efforts to strengthen the TVET governance system with the involvement of the business sector but also to facilitate collaboration between schools and sectoral associations or companies to secure in-company training for teachers and students.

Given Myanmar's recent past and the fact that the majority of TVET schools have reopened only in the last ten years, the progress in re-establishing the TVET system in the country is commendable. There is tangible momentum in strengthening TVET at different levels. However, the efforts

to establish and maintain collaborations between the business sector and training providers is still predominantly project-based and donor-driven. There seems to have been some progress, compared to what is reported in Milio et al. (2014), with regards to establishing a consultation system with BMOs through the PSD Committee. Ongoing collaborations between companies and the business sector remain limited with some encouraging examples of government involvement in establishing partnerships through government-to-government agreements or directly with larger, international companies. This is a positive development together with the ongoing efforts to work with the industry in defining occupational standards as a part of NSSA's mandate.



4.4.1. General Context

The Philippines is one of the most dynamic economies in the East Asia and the Pacific region. While the Philippine economic growth moderated to 6.3% in the first half of 2018 from 6.6% in the same period last year, the Philippines was among the top three growth performers in the region. According to 2017 estimates, the GDP of the Philippines was estimated at \$348.6 billion, which earned the country the position of the 34th largest economy globally. The Philippines conducts trade with countries such as the US, China and the Netherlands. The country exports a wide array of products, both manufactured goods such as electronic equipment and agricultural commodities such as fruits (World Bank, 2019b).

Employment increased between 2006 and 2015, but average wages remained stagnant. A large proportion of the potential workforce (>10 million people)⁴⁰ is living and working abroad, both regionally in ASEAN but also in other continents, which applies both to low skilled and skilled labour. The fact that investments in skills development often lead to greater mobility within the industry, both domestically and internationally, makes many industries reluctant to invest or contribute to skills development.

The largest industry sectors in the Philippines are tourism, agriculture, manufacturing and services. Tourism is an essential component of the economy of the Philippines due to its substantial contribution to the GDP as well as the vast number of people employed in the sector, with close to five million of the nation's citizens working in tourism in 2015. In 2017, about 27.7% of workers in the Philippines were involved in agricultural activities. The manufacturing industry has also grown to play a significant role in the nation's economy. The sector's development has seen its contribution to the GDP increase to nearly 25% of the national total. In 2012, the manufacturing industry grew by 5.4%, and in 2013 the growth rate was at 10.5%. The manufacturing industry has the potential to generate more jobs as well as contribute more to the GDP should the government implement relevant policies. Other important industry sectors include construction, information technology (IT) and business process outsourcing (BPO) (World Bank, 2019b).

40 <https://www.ilo.org/manila/areasofwork/labour-migration/lang--en/index.htm>

4.4.2. Brief introduction to TVET

The TVET system has its legal foundation in the Republic Act No. 7796, also known as the Technical Education and Skills Development Act of 1994. This act resulted in the establishment of the Technical Education and Skills Development Authority (TESDA). TESDA is responsible for both managing as

well as supervising the Philippines' Technical Education and Skills Development (TESD). TESDA sets direction, promulgates relevant standards and implements programmes geared towards a quality-assured and inclusive technical education and skills development and certification system. The system is conceptualised as a TVET Delivery Network (Figure 3).



Figure 3: The TESDA - TVET Delivery Network in the Philippines⁴¹

The major policy guiding TVET is the National Technical Education and Skills Development Plan (NTESDP) 2018–2022, a five-year plan which was officially launched in December 2018. The plan prioritises sectors and industries, namely the ones that have and/or are expected to create the most jobs. These are tourism/hotels/restaurants, construction, IT, BPO, transport, communication and storage.

The Plan lists a number of priorities, objectives, strategies and programme directions pertinent to business and industry collaboration in TVET. These include:

- The establishment and engagement of industry boards (and guilds);
- A push for the active participation of

industries in assessment and certification (through increased use of training regulations and capacity building of industry-assessors and industry assessment centres);

- Synergy of the education sector with industries in terms of aligning with international standards;
- Rationalising the TVET delivery system by enlarging the scope and impact of enterprise-based training;
- Establishing partnerships and linkages with industries.

The NTESDP acknowledges that the legal framework and policies need to be better aligned. The legislative agenda presents the legislation needed to ensure NTESDP implementation and effective

overall TVET delivery. TESDA identifies the following elements as key for a successful implementation of the NTESDP:

1. Apprenticeship Bill

There is a pending proposal to institute further reforms on the apprenticeship programme, which was transferred to TESDA in 1994. The proposal makes the programme more responsive to the identified needs of enterprises and prospective apprentices. The bill will establish a reformed apprenticeship programme that ensures the availability of qualified workers in the field of critical and in-demand technical skills through the active participation of all workers, enterprises, government agencies and non-government organisations concerned.

2. Amendment to the Dual Training System Act of 1994 (DTS Law)

The current law (Republic Act No. 7686) needs to be reviewed to entice more companies to engage in the DTS. The current legislation is outdated, but instead of a full review of the Act, the DTS has been updated through an IRR (Implementing Rule and Regulation) with various amendments to encourage more industry participation.⁴²

3. Rationalisation and harmonisation of enterprise-based modalities

Over the years three modalities have emerged under TESDA on work-based learning (WBL), namely: (1) the DTS, (2) the Learnership Program, and (3) the Apprenticeship Program. Other forms of WBL are the On-the-Job (OJT) Program and the Supervised Industry Training (SIT). These programmes are somewhat similar but are guided by various forms of legislation and regulation. Harmonising all WBL programmes and pilot projects

into one will rationalise training delivery and avoid confusion among stakeholders.

4. Establishment of polytechnic institutions

Establishment of polytechnic institutions should help promote synergy among institutions, enhance operational efficiency, broaden programme offerings and improve institutional performance. Under the oversight of TESDA, these institutions shall be centres of innovation and excellence and shall focus on delivering higher level qualifications such as NC III, NC IV and Diploma.⁴³

5. Establishment of a levy grant system or alternative schemes for financing TVET

A levy grant system as a source of TVET financing had been a contentious issue in the past and even at the time of the deliberation of the TESDA Law. TVET is an investment which helps develop quality workers; therefore, sustainable sources of financing need to be identified. TESDA has in the past proposed several recommendations based on studies and missions relative to the establishment of a levy grant system. To date, no concrete decisions have been made by the stakeholders, especially industry. Its implementation requires the approval of all concerned sectors.

4.4.3. Developments in business and industry collaboration in TVET

Business and industry cooperation in TVET is institutionalised at a national level within TESDA. The TESDA board, the highest policy making body of TESDA, includes 14 representatives from business and industry, labour representatives, and representatives from the education and training sector.

41 Source: SEA-VET, 2019

42 <https://www.pna.gov.ph/articles/1058656>

43 An overview of the Philippines National Qualifications Framework is available at https://connections.etf.europa.eu/wikis/home?lang=en#/wiki/Wf591e43b607e_4ccf_8d94_a3256a255147/page/Philippines%20-%20NQF%20Inventory

Furthermore, TESDA has the mandate to develop Training Regulations (TRs). Industry experts are consulted and involved in the development process for training regulations. TRs are in place for each qualification. A qualification is a part of the full competency map of the respective sector, for example, the automotive sector or the health sector. Each TR defines the competency standards, training standards and national assessment and certification arrangements.

Industry experts are actively engaged by TESDA and can have various roles and forms of engagement. One form of engagement is membership in a TESDA Advisory Panel, a Technical and Industry Expert Panel which can consist of 5-6 members, for example for the automotive sector, or participation in a National Validation Panel, which validates the work of the Advisory Panels and Technical and Industry Expert Panels. Another set-up is found, for example, in the health sector, which includes engagement of the Health Care Industry Training Council Inc, Philippines Australia Quality TVET Project (PAQTVET), a Committee on Standards and Assessment Development, a Committee on Planning, Research, Marketing & Advocacy, and a Committee on Curriculum and Training Development. While these “committees” are institutionalised within TESDA for the main purpose of developing TRs, there is no formal system of national “sector skills committees” or “sector boards”. A number of such committees or boards used to exist in the past, but many have ceased to exist or are currently inactive. Nevertheless, a number of industries have set up or are in the process of developing sector skills committees/boards again. In summary, over the years many forms of engagement have been put in place and sectors often chose their own pragmatic approach.

The two sectors that are still very active and committed to skills development are tourism and construction. The Tourism

Industry Board Foundation Inc (TIBFI)⁴⁴ has a broad representation and is very engaged in skills development in the Philippines and in ASEAN. TIBFI can be considered as fulfilling the role of a national sector skills committee. It contributes to the development of occupational standards for the sector in the Philippines as well as in the region. The Philippines Constructors Association Inc, through the PCA Foundation, is also developing an ambitious and holistic business strategy to improve the skills and hence the competitiveness of the construction sector in the Philippines.

Other sectors that reportedly have a strong commitment to skills development are shipping, business processing & outsourcing, and IT BPO (IT sector). However, most of these initiatives are industry-driven and often initiated as a result of dissatisfaction with the skills outputs of the formal TVET system under TESDA. The dissatisfaction concerns mainly the skills gaps of TVET graduates due to lack of relevant exposure to the latest technology (lack of technical infrastructure and skilled trainers). It has resulted in a situation where sectors are developing their own skills development initiatives and only engage with TESDA to the extent that is legally required in order to operate.

Innovative arrangements are often found between private TVET providers and industry rather than with government TVET institutions. These can be initiatives driven by business and industry or private TVET providers or collaborative arrangements between business and industry and private TVET providers. For example, the Don Bosco TVET system (“Don Bosco One TVET”), which is a private institution, operates 18 institutions across the Philippines and is perceived to be in a better position to respond to the needs of business and industry than the public TVET system. Don Bosco has many arrangements in place with business and

industry, for example a collaboration with Toyota which includes a Toyota training unit at Don Bosco, while Don Bosco’s graduates can progress to the Toyota Motor Philippines School of Technology. Don Bosco follows the national Training Regulations for all its programmes. Students are trained for one year at Don Bosco, followed by five months of internship.

Another example is Dualtech, which is the pioneer in delivering dual training in the Philippines. Dualtech has trained 11,000 graduates and is providing dual training adapted from the German Model (“dual system”). The programme consists of five months of training at the Dualtech campus in Laguna, followed by 18 months of apprenticeship with industry partners. The programme does not follow the TESDA TR’s (and is actually registered as a “no TR” programme), although each of the apprenticeship agreements needs to be approved by TESDA. An example outside the capital city includes the Center for Industrial Technology and Enterprise in Cebu. The centre offers technician and diploma programmes, which require students to work and train for five days per week in industry and one day at school. The companies pay a subsidy to the schools as well as to the student.

There are variations of work-based learning (WBL) with different responsibilities of TVET institutions and business and industry. While the German model of dual training is often used as a benchmark for WBL, it can be concluded that the models in the Philippines are hybrid forms of institutional and in-company training. In addition to the training delivery, other elements are a part of the WBL arrangements, for example industry can pay or contribute financially to training fees. Furthermore, some companies invest and provide equipment to these institutions.

Various stakeholders, such as the numerous employer organisations, industry associations,

labour organisations, federations and development partners are engaged in strengthening business and industry collaboration in TVET. For example, the Philippines Chamber of Commerce and Industry (PCCI) and the Employers Confederation of the Philippines (ECOP), which represent business and industry in the Philippines, contribute to collaboration and/or are represented in TESDA’s Board or committees. The key development partners in the Philippines are GIZ and ADB, who have been playing a major role in strengthening the TVET system and have laid the foundation for business and industry cooperation in TVET. GIZ is currently supporting TESDA in promoting the safer use of natural alternative refrigerants for split-type air conditioning systems to fight climate change. There were also a number of ADB projects implemented under TESDA aimed at strengthening TESDA as the central authority on technical education and skills development and upgrading the quality and relevance of its programmes.

There is a general perception amongst most stakeholders that the legal framework needs to be revised and aligned in order to create a better environment for business and industry collaboration in TVET. The Philippines has a myriad of laws which are directly or indirectly impacting collaborations. There is the TESDA Act of 1994, which regulates TVET in the Philippines. In addition, TESDA has issued many rules and regulations that refer to business and industry cooperation in TVET. There is furthermore the Dual Training System (DTS) Law, which is not considered to be instrumental due to conflicts with other labour legislation and the administrative burden it poses on the employers. It has therefore been pragmatically replaced by a Dual Training Programme which is part of TESDA’s rules and regulations. Furthermore, there is an Apprenticeship Law which is part of the labour legislation (not educational and training legislation) and is considered to

44 <https://www.tourismindustryboard.org/>

cause mismatches in the implementation of apprenticeship programmes.

Another policy development concerns the implications of the K to 12 restructuring of the Philippine educational system, which has affected TVET. The restructuring, if implemented well, will pave the way for a two-pronged path for education and employment. Two additional years were added to the previous 10-year curriculum. The additional two years serve as a specialisation period for high school students, where they can pursue vocational skills, musical skills, arts or later proceed to college. The restructuring also had a temporary impact on enrolment numbers in the existing TVET institutions. With the K to 12 programme in place, TVET will play a crucial role where students are prepared for tertiary education, middle-level education, employment and entrepreneurship. The curriculum guides, learners' modules and teachers' guides should have been developed in line with industry requirements, but the first two years of implementation have been characterised by

logistical problems, and fresh graduates are not finding their way to the job market yet.⁴⁵ GIZ is also supporting the implementation of the K to 12 programme with pilot projects with some of the Chambers of Commerce and Industry as well as other organisations, such as the dual training project with the Laiya Resort Owners Association.

The Philippines has for a long time been the example in ASEAN for setting up a national TVET system and governance structures (TESDA) that engage all relevant stakeholders. While these systems are still in place, there is also a sense that the system and TESDA have become too bureaucratic with too many laws and guidelines that regulate TVET and therefore can be a barrier for effective business and industry collaboration. Nevertheless, a number of BMOs are very committed and concerned about the level of skills development in the Philippines and are setting up their own structures for effective skills development, for instance in the tourism, hospitality and construction sectors.



4.5.1. General context

Thailand has experienced many major changes since 2010. The floods that affected the country in 2011, the prolonged conflict between the two main political parties, and an upsurge in the minimum wage in 2012/13 evidentially impacted economic growth. However, its strong growth fundamentals helped the country bounce back. Thailand's GDP growth is estimated at 4.5% in 2018 and 4.3% in 2019 (ADB, n.d.). The main economic sectors are manufacturing and services. Services, which include tourism and health services, account for approximately half of the economic output and around 40% of the employment. Manufacturing accounts for roughly 35% of the output but only 15% of the employment (World Bank, 2018). Economic growth in Thailand can be largely attributed to exports, which in recent years have shifted from low-tech to high-tech manufacturing products such as computers and automobiles parts, among others. The shift however has not been accompanied by improvements in labour productivity (ILO, 2016).

To further boost its economic performance and create a value-based economy, Thailand launched the Thailand 4.0 policy and approved the Eastern Economic Corridor (EEC) programme in June 2016. The EEC is

focused on three provinces⁴⁶ on Thailand's Eastern Seaboard which have a strong industrial base. Major investments in infrastructure are underway to support the Thailand 4.0 policy including railway and airport upgrades, high-speed rail and roadways. As a consequence of the Thailand 4.0 policy, the demands for a more technical workforce and the application of automation are expected to increase.

Companies in Thailand are predominantly SMEs with a number of export-oriented larger companies. The enterprise survey of 1,000 firms conducted by the World Bank in 2016 shows that the business sector is made up of a majority of SME (400 firms) closely followed by middle size firms (324 companies) and larger companies (276 firms). The two main employer organisations are the Thai Federation of Industries (TFI) and the Employers' Confederation of Thailand (ECOT), which have been active in skills development. ECOT is a member of the ASEAN Confederation of Employers (ACE).

4.5.2. Brief introduction to TVET

Educational attainment of Thais has improved in recent years. The average years of schooling for people aged 15 or over increased from 8.2 years in 2010 to 8.6

⁴⁵ For example: <https://www.philstar.com/headlines/2018/11/13/1868278/logistical-problems-hinder-k-12-program-says-recto>

⁴⁶ Chachoengsao, Chonburi, and Rayong

years in 2017 (Labour Force Survey 2010–2017, National Statistical Office). While the employed population is becoming more educated, the proportion of those who graduate from vocational schools in the total secondary school graduates continues to drop – from 28.4% in 2010 to 24.6% in 2017 (NSO, 2017).⁴⁷ The drop has been outweighed by the rapid growth of highly educated employed persons, generating a decline in the availability of vocational graduates in the labour market.

Thailand has a number of policies that guide socio-economic development, all of which refer to the importance of human resource development and, to a varying degree, focus on the role of business and industry in strengthening the TVET system. Table 9 gives an overview of the main policies that guide Thailand's TVET development.

Policy	Brief overview
20-year National Strategic Framework (2017–2036)	The 20-year National Strategic Framework is an overarching framework guiding the national socio-economic development of Thailand. It came into effect in 2018 to guide the country's development by ensuring security, prosperity and sustainability and by following the philosophy of self-sufficiency. It outlines six strategies ⁴⁸ to achieve this vision, one of which is human resource development. There is no specific reference to the role of business and industry in this area.
Thailand 4.0	Thailand 4.0 is a national policy which strives to move Thailand to develop innovative technologies, strengthen its service industry and develop a technology-based economy. In line with the 20-year National Strategic Framework, Thailand is focusing on becoming a value-based and innovation-driven economy by moving from producing commodities to innovative products and emphasising the promotion of technology and creativity. The Thailand 4.0 policy is a driving force in much of the discourse on TVET and company engagement.
12 th National Economic and Social Development Plan (2017–2021)	The 12 th National Economic Social Development Plan focuses on developing a self-sufficient economy, sustainable development and investment in people. It emphasises the need to increase the number of TVET students and certified graduates but does not make any specific reference to company involvement in TVET.
Vocational Education Development Plan (2017–2036)	The Vocational Education Development Plan is designed in line with the strategies of the National Education Plan 2017–2036. It puts emphasis on improving all aspects of vocational education and human resource development and the need to respond to company skills needs, including in the context of the EEC.

Table 9: Overview of TVET-related policies

47 National Statistical Office of Thailand. (2010–2018). Labour Force Surveys. Retrieved from https://nso.gov.th/en/News_Releases/View_by_Unit/Unit_C2/Labour_Market_Statistics/Pages/Labour-Force-Survey.aspx

48 The six strategies include: (1) national security; (2) competitiveness enhancement; (3) development and empowerment of human capital; (4) broadening opportunity and equality in society (5); environmental-friendly development and growth; and (6) reforming and improving government administration.

The Vocational Act (2008) and the Skill Development Promotion Act (2002) regulate skills development in Thailand. The Skill Development Promotion Act encourages enterprises to provide training and to upgrade the skills, knowledge and competencies of their employees. Incentives are provided to enterprises by deducting the cost of training by 200% from the annual tax payment for companies with at least 100 employees. Such companies have to provide training for at least 50% of all their employees. Otherwise, the company has to pay contributions to the Skill Development Fund, which is a funding mechanism for skills training in Thailand. The number of workers trained in this category ranged between 2.5 and 4.6 million people each year during the 2010–2015 period.⁴⁹

In terms of governance, the Office of the Vocational Education Commission (OVEC) under the Ministry of Education is the main body in charge of formal, non-formal and dual vocational training (DVT) in Thailand. It oversees 429 public and 482 private TVET institutions. OVEC has developed a network of umbrella institutions. One of these umbrella institutions is the Institute of Vocational Education Bangkok (IVEB), which oversees 13 other OVEC-run colleges. It is managed by a Vocational Education Council whose chairman belongs to the Thai Chamber of Commerce (TCC). Giving a chairing role to an employers' representative is seen as a shift on the part of the OVEC towards giving the business sector a leading role in college management.

IVEB is also actively engaged in fostering international collaborations. It recently

established a link with a network of 20 colleges in China that have connections with Chinese companies in Thailand. China is one of the most important foreign investors in Thailand. TVET colleges in China receive additional budget if they establish collaborations with TVET colleges in other countries. One of the colleges – the Shandong Polytechnic College – works closely with the Hebei Software Institute, which has signed an MoU with the Thonburi Commercial College under IVEB. The collaboration will consist of teacher and student placements at the Chinese college for one year. Upon graduation, students are expected to have higher chances of being employed by Chinese companies in Thailand.

There are several other ministries⁵⁰ that oversee skills training in their respective areas. One of them is the Department of Skills Development (DSD) under the Ministry of Labour. DSD is responsible for workforce skills training, retraining and upgrading to meet the national qualification standards. Under the Skill Development Promotion Act (2002), DSD is responsible for establishing national skills standards, promoting and testing them, and promoting cooperation between public and private sectors in terms of networking and drafting national plans on skills demand. In 2017, DSD launched a Skills Development Network for Thailand 4.0. The objective of the network is to develop the Thai workforce, align skills development and the labour market needs and promote training for advanced technology. The network is composed of 28 organisations⁵¹ (both private and public) which support skills development efforts and provide training to a total of 9,279 building electricians, metal foundation and sheet installers and building painters.

49 As a result of the economic slow-down in 2012, the number of workers trained dropped significantly to 2.5 million before increasing again to 4.6 million people (Department of Skills Development, Ministry of Labour, 2016).

50 Most ministries in Thailand provide skills training related their specialised fields. These include the Ministry of Public Health, Ministry of Industry, Ministry of Agriculture and Cooperatives, Ministry of Science and Technology, Ministry of Tourism and Sport, Ministry of Interior, Ministry of Social Development and Human Security, and Ministry of Culture. To provide formal qualifications, the ministries have to follow the National Vocational Education Framework and seek approval from OVEC. This does not apply to short course programmes provided by the ministries.

51 Companies in this Network include Nippon Paint (Thailand), Thai Yamaha Motors, NS Bluescope (Thailand), Schneider Electric Thailand, and Siam City Cement.

Another key institution in TVET is the Thailand Professional Qualification Institute (TPQI), which was founded to develop skills and occupational standards. TPQI has established several subcommittees by occupation to develop professional standards. The members of the subcommittees comprise experts from the public, private and academic sectors. TPQI identifies targeted sectors for developing skills standards and organises consultation meetings. Participants of these meetings include TPQI staff, industrial representatives, entrepreneurs and academics. The consultations aim at prioritising specific occupations that require skills standards in the sector. After the consultation meeting, TPQI assigns staff and recruits expert instructors in the field to become members of a working group for skills standards development. For example, in line with the Thailand 4.0 plan, seven subcommittees have been established as follows: logistic infrastructure, logistics and supply chain, robotics and automation, ICT and digital content. To give a stronger voice to the industry, TPQI is currently working to establish an Industry Competency Board, which is expected to give companies the possibility to engage with TPQI in a more strategic way. The members of this board have been selected in collaboration with OVEC and DSD.

4.5.3 Developments in business and industry collaboration in TVET

The mechanism for sustained business and industry collaboration in TVET in Thailand is the well-established DVT system. Public

and private sector schools both play a major role in DVT. The core principle of the programme is that theoretical learning takes place at the college while practical training takes place in a company. Students engage in the programme based on an agreement between the college and the company. Educational institutions have ownership and select the students who benefit from DVT. They are responsible for the study course and send students to train with companies. The curriculum consists of a framework partly based on a core part from the ministry (70%) and partly on input from the company (30%). Companies that participate in the DVT programme can receive a tax deduction of 200% on the costs of student-related training. Although not yet covering the whole TVET system, the coverage is growing (see Table 10) and the ownership of DVT appears to be fully with the government as opposed to the development partners. Development support to the dual system, however, still exists. For example, the German-Thai Chamber of Commerce has been supporting the dual system since 2013 through the German-Thai Dual Excellence Education (GTDEE) programme which facilitates collaboration between private colleges and international companies.⁵²

Employers' associations and the business sector are participating in formal dialogue structures focusing on skills development.

	Year				
	2014	2015	2016	2017	2018
Colleges	382	403	414	414	415
Companies	8,098	10,527	21,019	32,223	36,801
Students	61,704	91,622	113,729	125,896	139,727

Table 10: Number of colleges, companies and students participating in DVT in Thailand, 2014–2018⁵³

⁵² Some of the partner companies include BMW Thailand, Boon Rawd Brewery, Grohe Siam, Mercedes-Benz Thailand, Robert Bosch Automotive Technologies Thailand and Thai Technic Electric.

⁵³ Source: OVEC

Skills and training needs are often identified through tripartite meeting arrangements. There are several committees that include industry representatives and focus on improving the relevance of TVET from different perspectives. A notable shift in the approach to collaboration in recent years has been the effort to give business representatives a steering role in policy dialogues. Some of the committees operating in TVET at the moment include:

- The **Vocational Education Commission (VEC)**, which was established by the Vocational Education Law 2003. It consists of 31 members, including representatives from the Thai Federation of Industry, the Thai Chamber of Commerce, the Federation of Agriculture, and other occupational groups. VEC has been responsible for the national TVET policy and standards as well as issues related to TVET at the national level.
- The **Public-Private Partnership (PPP) Committee on TVET**, which was established in 2015. The committee had 19 occupational subcommittees in 2015, which increased to 36 occupational subcommittees in 2019. The main objectives of this PPP committee are to identify actual needs for qualified TVET manpower in each occupation, provide information for improving teaching and learning processes and teacher in-service training, and strengthen DVT and apprenticeship training at the implementation level.
- The **Public-Private Steering Committee**, which was established in 2015. The Committee aims to give business and industry a leading role in developing the Thai economy. Three ministries – the Ministry of Education, the Ministry of Labour and the Ministry of Industry – have joined hands with 13 leading private organisations to form the committee. The committee builds on the concept of “Pracharat” or “state of the people”, which calls on all sectors of society to join hands in strengthening the country’s competitiveness. The committee comprises of twelve working groups, seven of which act as ‘drivers’ and five as ‘enablers’. The working group focusing on upgrading skilled workers is considered an ‘enabling group’ and is headed by the Minister of Education and the head of the business and industry sector group from the Siam Cement Group (SCG). The working group focuses on flagship initiatives such as the Excellent Model School (EMS), improving the image of TVET, setting up a labour market information database and further developing occupational standards.
- The **National Qualifications Framework (NQF) Mobilization Committee**, which was established in 2018, has 7 subcommittee that convene ad hoc. The main objective of these ad-hoc committees is to develop a prototype or model of an “industry-led programme” that is guided by the National Qualification Framework (NQF) of Thailand. The subcommittees, each related to a specific occupation, are tasked with developing a five-year manpower demand and supply plan. The plan must include information on projected competency requirements, a plan for teacher in-service training, curriculum development needs, information on required teaching and learning media and equipment, delivery and a work-based learning system. The main aim of the subcommittees is to link qualifications and occupational standard levels to the NQF.
- There is furthermore the **National Board of Vocational Training Coordination (NBVTC)**, chaired by the Prime Minister, which consists of members who are representatives of the government, employer associations, workers associations, and experts in labour development. The DSD Director General serves as the secretary of the committee. The board members are responsible for setting policies, guidelines, measures and coordinating labour market development

and vocational training to be in line with government policies and the 12th National Economic and Social Development Plan (2017–2021). At the local level, there are **the Provincial Boards of Vocational Training Coordination (PBVTC)**. These are chaired by the provincial governor of each province, with representatives from the public and private sector in that province as members of the committee. Business and industry sector groups include representatives from the Federation of Thai Industries, the Thai Chamber of Commerce, and a tourism-related organisation.

All of the above-mentioned committees are actively working to collaborate with the business sector at policy level to improve the relevance of different aspects of TVET in Thailand. A clear understanding of the roles and a streamlined coordination of the committees and working groups is key for ensuring their contribution to Thailand's economic priorities.

Efforts to align skills development with Thailand's priority sectors are ongoing.

According to the Ministry of Commerce,⁵⁴ the major exports in 2018 included cars, car parts, computers as well as precious stones and jewellery. The Thailand 4.0 policy reflects these sectors by promoting a “new generation” automotive sector and “smart” electronics, among others. Similarly, the Eastern Economic Corridor (EEC) initiative to develop Thailand's eastern provinces into an ASEAN economic zone focuses on strengthening connectivity through investments in sea and airports, which are expected to further boost the petrochemical, automobile, and electronic industries. Some of the notable business and industry collaborations in TVET focus on these major economic sectors promoted by the Government of Thailand. No unified approach to establishing business and industry collaborations in TVET along these sectors is evident, but the Thailand 4.0

policy appears to play a role in guiding and branding these initiatives. The following provides an overview of some examples of smaller and larger ongoing collaborations:

- **Automotive sector:** The Automotive Human Resource Development Academy (AHRDA) was established in 2013 to support human resource development in the Thai automotive and auto parts industry. AHRDA is a result of a close cooperation among DSD, the Thai Automotive Industry Association, the Thai Auto Parts Manufacturers Association, and the automotive and auto part cluster under the NBVTC. AHRDA is located in Samuthprakarn province, which is close to the industrial estates of major automotive companies. The location facilitates the on-the-job training of the trainees. It also makes it easier for firms to send their workers for additional training, since it is close to the workplace and the workers' residences. Furthermore, the training resources and materials as well as the instructors are jointly supported by the public and private sectors.
- **Precious stones and jewellery:** The Golden Jubilee Royal Goldsmith College is a vocational college under OVEC founded in 1995. The college offers courses at three levels (certificate, diploma and bachelor's degree) and targets students from rural and disadvantaged areas of Thailand. Since 1997, the college is collaborating with jewellery making companies to provide DVT. As a part of the programme, students are required to spend four days training in a company while one day is spent in the college. As of 2018, the college had 1,274 students of whom 800 participated in the dual programme. The companies collaborating in the programme include both larger companies as well as SMEs. The companies cover the cost of allowances, training materials, and tuition fees for all post-secondary students taking part in

the programme. The companies further provide in-company training to the OVEC teachers from the college and work with the college to adapt the curriculum to company needs.

- **Petrochemical industry:** The Map Ta Phut Port, which handles liquid materials and natural gas for electricity production and the petrochemical industry in Thailand, is closely located to the Map Ta Phut Technical College, under OVEC. Since 2008, the College has been a part of the Vocational Chemical Engineering Practice College (V-ChEPC) programme. The programme is a two-year higher vocational education training which focuses on preparing graduates with skills required in the petroleum and petrochemical sectors. The programme is jointly run by OVEC, six petroleum companies⁵⁵ and the Petroleum Institute of Thailand (PTIT). The college offers full boarding and scholarships for all students funded by the partnering petroleum and petrochemical companies. The companies also provide instructors' training on site, work-based learning for students, and technical assistance in competency identification, curriculum development, and specialised training for instructors and students. The government is responsible for capital costs such as buildings, equipment, and operation costs including instructors' salaries. On average, 35 students graduate from the programme annually. The PTIT serves as the organizer of the curriculum development and the coordinator between the college and the industry sponsors.
- **Services:** One notable collaboration in the services sector is the partnership between OVEC and the CP All Group (CP). CP consists of 14 subsidiary companies, including 7 Eleven stores, which is the group's main business. The collaboration between OVEC and CP started over 25 years ago and focuses on 7 Eleven stores. It aims at developing personnel

who can respond to the country's retail business expansion. The company opens approximately 800 stores per year and requires at least 10,000 new workers per year. There are not enough graduates from OVEC colleges to cover the demand, and therefore the company opened its own private training institutions, including the Panyapiwat Technological College, which offers training at the level of vocational diploma, and the Panyapiwat Institute of Management, which offers training at bachelor, master and doctorate levels in both Thai and international courses (CP All, 2017).

- **Aviation:** Another example of initial efforts to engage companies in skills training to support the EEC is the collaboration with Thailand's Civil Aviation Training Center (CATC) under the Ministry of Transport. In January 2019, Airbus and CATC signed an agreement to work together to develop and implement maintenance training and pilot training courses. This is in line with the efforts to expand the capacities of the U-Tapao airport and better link it to two other airports in Bangkok to transform Thailand into a hub for traffic in Asia.

There are several well-established collaborations between the business sector and training providers in Thailand. The overall number is still relatively small, but there is a clear understanding at policy level about the importance of engaging business and industry in the TVET system. There are several working groups and committees in place to facilitate dialogue between stakeholders invested in TVET and skills development, including business representatives. There is reportedly a shift within the OVEC, the main government body in charge of formal TVET, towards giving companies a steering role by assigning company representatives as board members of OVEC colleges, such as in IVEB. However, the efforts appear to not be clearly coordinated between the ministries charged

54 Ministry of Commerce. Database. Exports by Product. Retrieved from <http://tradereport.moc.go.th/TradeEng.aspx>

55 PTT Global Chemical Company Limited, Star Petroleum Refining Company Limited, Thai Oil Company Limited, UBE Chemicals (Asia) Company Limited, SCG Chemical Thailand Company Limited, Dow Chemical Thailand Limited

with overseeing skills development in Thailand, particularly MOE and MoL.

Efforts to establish collaborations are largely public-sector driven. Many larger companies in Thailand rely on their own resources to meet their skill needs. For example, in the petroleum sector PTT founded the Kamnoetvidya Science Academy (KVIS), a science-oriented secondary school and the Vidyasirimedhi Institute, a higher education school focusing on science and engineering (Baxter, 2017). Equally, in the automotive sector Toyota established the Toyota Academy and the RMA Group the RMA Academy, which cater to their respective training needs. Despite ongoing efforts, there is still scope for strengthening collaborations between training providers and the business community in Thailand.

Overall, the national TVET authorities in Thailand are well aware of the economic imperative for engaging business and

industry in TVET to improve the quality and relevance of skills training. There have been concrete efforts to engage business and industry representatives in policy dialogues on TVET and ensure that their voices are heard in the development of occupational standards, curricula and assessment. Nevertheless, these ongoing efforts could be further strengthened and streamlined along a clear strategic vision, such as the Thailand 4.0 policy or the EEC initiative, which would also help TVET institutions channel their efforts towards establishing collaborations. More transparency of the system and flexibility in collaboration arrangements could help business and industry in establishing mutually beneficial collaborations with the public TVET system.



4.6.1. General context

Viet Nam's development record over the past 30 years is considered remarkable. Economic and political reforms under "Doi Moi", launched in 1986, have spurred rapid economic growth and development and transformed Viet Nam from one of the world's poorest nations to a lower middle-income country.

Viet Nam's GDP is estimated to have increased to 7.1% in 2018 from a 6.8% growth in 2017. GDP growth was broad-based, led by a strong manufacturing growth of 13% and bolstered by heavy external demand (World Bank, 2019c). The main sectors of the economy are tourism, agriculture, mining and minerals and food processing. However, it would not do justice to emphasise just a few sectors as sectors outside the top four or five also have great growth potential given the sheer magnitude and growth of the economy. For example, the potential of light manufacturing is large.

It is also to be noted that 98% of Vietnamese enterprises are classified as SMEs, which contribute 40% to the GDP and 50% to employment (Dezan Shira, 2017). The Viet Nam Economic Policy of 2018 (World Bank, 2018c) envisages, among other things, to

change the "image" of Viet Nam as a low-cost labour country, to invest in high level industries with more value and to prepare for "Industry 4.0".

Viet Nam is experiencing rapid demographic and social change. After years of growth, Viet Nam's population reached about 95 million in 2017 (up from about 60 million in 1986) and is expected to expand to 120 million before tailing off around 2050. Currently, 70% of the population is under 35 years of age with a life expectancy close to 73 years.

4.6.2. Brief introduction to TVET

The Directorate of Vocational Education and Training (DVET) of MOLISA is responsible for the management of the formal and non-formal⁵⁶ TVET system. DVET functions as the consulting and executing agency responsible for assisting MOLISA in exercising its management role in vocational education and training. It is responsible for ensuring the quality and relevance of TVET programmes. The formal TVET system differentiates between three main types of TVET institutions, which exist countrywide:

- vocational education and training centres (elementary level),

⁵⁶ If classified as continuing education.

- vocational education and secondary schools (intermediate level),
- and vocational education and colleges (college level).

There are 1,289 public TVET institutions of which colleges account for 23.8%, secondary schools 22.9% and training centres 54.3%. Non-public (private and foreign invested) TVET institutions numbered 655 (33.5%) (DVET 2018). TVET students normally complete internship programmes in their last year of training.

Like most other ASEAN countries, Viet Nam is going through major TVET reforms. The TVET Law came into effect in July 2015. It brought in reforms such as a comprehensive set of policies and an improved system of promoting skills development in priority sectors. The following observations can be made about the ongoing reforms:

- Responsible state management agencies in the TVET sector worked together to develop and release new under-law documents (e.g., decrees, circulars, and decisions), which instruct and guide TVET-related entities to implement the law.⁵⁷
- National TVET policies that are still aligned with the objectives of the TVET system (e.g., the Vocational Training Development Strategy 2011–2020) continue to be implemented.
- The 5-year Socio-Economic Development Plan 2016–2020 (SEDP) states that the focus of TVET should be more on quality and access rather than just expansion by establishing more TVET institutions. While Viet Nam has made significant strides in TVET in the last few years, the country has yet to accelerate the reform process in order to strengthen the relevance of the TVET system to labour market requirements, improve equitable access for vulnerable groups and enhance

industry participation in policy and programme development. These are priorities set forth under the Vocational Training Development Strategy.

- Referring to the TVET Law, DVET has started to actively support and promote pilot projects that enhance cooperative initiatives and agreements with business and industry.
- The TVET Law also introduced a TVET skills development fund to which employers are supposed to make a mandatory contribution, but the fund is not operational yet. Employers do not currently see the benefits of contributing to it and often argue that business and industry are not within the legal and policy mandate of MOLISA, which is responsible for the TVET Law and the fund. Even the Ministry of Finance is reportedly not supporting the idea and the approach of the fund.

Non-formal and informal training in Viet Nam are referred to as continuing vocational education and training (C-VET). The TVET Law (2015) defines C-VET as training that is provided as in-service, correspondence or guided self-study training at the elementary, intermediate and college levels. Flexible or part-time vocational training programmes are also considered as C-VET. MOLISA is responsible for C-VET programmes. The duration of continuing training depends on the programme and the types of trainees targeted (unemployed youths, ethnic minority groups, people with disabilities, employed people wanting to pursue further training, etc.). Non-formal and informal TVET are offered in TVET institutions or by other organisations such as the Women Union, Farmer Union, Youth Union, associations and companies.

4.6.3. Developments in business and industry collaboration in TVET

In general, collaboration between the formal TVET system and business and industry is still very weak despite ongoing reforms. The legal framework, as set out in the TVET Law (2015), includes provisions on business and industry collaboration. It defines the rights and obligations of enterprises, which provides a basis and stimulus for collaboration (NIVET, 2016). Despite the provisions in the law, there is limited awareness amongst TVET institutions as well as business and industry about the necessity of collaboration and/or not enough knowledge on how to collaborate. It is reported that many companies see access to relatively cheap labour and reduced recruitment and training costs as the main “win” of this collaboration. Stakeholders are generally not aware that collaborating on TVET could create “win-win” situations, for instance through reduced staff recruitment and retraining costs.

An important stakeholder in business and industry collaboration in TVET is the Viet Nam Chamber of Commerce and Industry (VCCI), which champions dialogue and supports policies and collaborative practices. In general, VCCI promotes trade and business relations with enterprises in Viet Nam. It is an independent, non-governmental, non-profit organisation that has also financed the so-called Quality Advisory Boards, which advise on the approach, quality assurance measures and governance of collaborative projects. There is also an agreement in place between the VCCI and DVET to establish national sector skills councils (SSC), but these SSCs have only just started, hence it is too early to assess their impact. The tourism sector was an initial target, and this specific sector has also benefited from technical support from Australia and the ILO (STED Project).

NIVET is the “think tank” for DVET and carries out many studies and reviews on TVET in general as well on collaboration with business and industry. This includes the Annual Viet Nam Vocational Education and Training Report. The 2016 report provides an overview of the state of affairs in business and industry collaboration in TVET. This report shows very contradicting views from the perspective of the TVET institutions and that of business and industry. TVET institutions are increasingly engaging with industry, for example, through “industry advisory boards”, but these operate at an institutional level and mainly have the role of starting the conversation between individual TVET institutions and industry partners. This, however, has not yet been fully institutionalised at the national, sectoral and/or regional levels. The engagement, including opportunities and challenges, are also described in the report, which includes reasons such as “no need for training by industry, not being able to establish contact, lack of specialised staff to develop relationships and TVET institutions not being able to provide the required training (from the viewpoint of industry)” (NIVET, 2017).

As in other countries in the region, business and industry collaboration in TVET is almost exclusively supported or driven by development partners in Viet Nam. The following gives an insight into the scale of initiatives that facilitate business and industry collaborations in TVET.

- The programme “Reform of TVET in Viet Nam” funded by BMZ (Germany) and implemented by GIZ is currently the main catalyst for supporting necessary policy reforms in the TVET system, including business and industry collaboration, which is one of the key areas of the programme. The programme supports the creation of Centres of Excellence and other pilot programmes that have collaboration with business and industry

⁵⁷ An overview of the current normative documents in the legal framework is available in Vietnamese and English in a summary document by MoLISA/DVET (2017).

as a focus. It also provides technical support to the Government, industry and TVET institutions. These include a number of initiatives in the Southern part of Viet Nam, such as on wastewater engineering with HVCT College of Technology II (see ASEAN Practice 6) or the comprehensive pilot in cooperative training at LILAMA-2 and HVCT on various forms of engagement with business sector partners. GIZ is also building the capacity of institutions and its trainers to implement dual training. For instance, in-company trainers are being trained by GIZ.

- A pilot project “The Danish-Vietnamese Technical and Vocational Education and Training (TVET) Project”,⁵⁸ supported by Denmark’s Ministry of Foreign Affairs, aims at introducing dual vocational training in two majors (graphic design and interior design) in four Vietnamese TVET colleges.⁵⁹ Within the project, local occupational skills councils have been set up at the selected colleges while the colleges have been supported to develop curricula corresponding to the needs of companies and to pilot in-company apprenticeship programmes, in order to increase practical experiences for students and improve the capacity of lecturers.
- The Australian government (DFAT)-supported “Aus4Skills” programme (2016–2020) focuses on the logistics sector. According to the Vietnam Logistics Association (VLA), the logistics industry needs 250,000 additional skilled workers by 2030. The project supports six TVET institutions across Viet Nam with many located in the South and Da Nang. The project involves eight major companies (and 40 satellite companies). It focuses on the five most needed occupations, which are warehouse operator, warehouse supervisor, logistics administration

officer, freight forwarder and materials handling operator/forklift operator. Australian TVET is designed around work packages/units of competences and uses Industry Reference Committees. For this project, a Logistics Industry Reference Council (LIRC), comparable to a SSC, has been set up. The LIRC also includes the VCCI and the Vietnam Logistics Business Association, who contribute to the development of skills standards, units of competence and curricula.

- The British Council has supported the TVET sector in Viet Nam through the “Raising Quality and Standards – Vietnam/UK Advanced International Skills Partnerships Project” (2015–2018). The support was aimed at DVET and four TVET colleges. Within the updated project, industry-demand driven curricula were developed and implemented (British Council, 2019).⁶⁰
- Several NGOs offer skills development programmes in collaboration with the hotel and tourism industry. For example, REACH Viet Nam has reportedly got arrangements with more than 100 hotels, many of them 4- and 5-stars hotels.⁶¹ It is understood that the government has engaged with Australia to promote tourism, and the Australian models are used as benchmarks for the tourism and hospitality sector. NIVET is in charge of benchmarking and advises on international good practices and on how and whether they can be implemented in Viet Nam.

There are also many industry-driven initiatives on skills development, which are pragmatic and driven by the industry’s immediate needs. Examples are the programmes of Bosch Rexroth, which has established a business unit for training.⁶²

Vinfast,⁶³ Vinacomin (coal industry), Thaco Group (local manufacturers for Mazda), EVN (Electricity) and Mitsubishi⁶⁴ are other notable examples of industry-driven initiatives. There are also initiatives pertaining to quality assurance, which also specifically address cooperation with industry. Examples include the Quality Advisory Board, which was installed in order to provide advice to the stakeholders of an automotive cooperation project between Toyota, Ford and Hyundai and Dong Nai College of High Technology (DCoHT). The Board was also supported by VCCI and the Nordic Federation of Employers. DCoHT also established a similar board for a kitchen and restaurant project which included Saigon Tourist School, REX Hotel, Riverside Renaissance Hotel and Pandanus Resort (NIVET, 2017).

The tourism sector is quite advanced in collaborative arrangements. The Hanoi Tourism College and Saigon Tourism College are reported to have developed many linkages with companies for internships. There are other tourism-related training institutions which were included in the government’s master plan to upgrade high quality tourism colleges. Two of these

are in Thua Tien-Hue and Quang Nam provinces. They collaborated with VCCI on the enterprise survey to identify the tourism occupations most needed in their provinces and jointly designed the required curricula for colleges with the tourism enterprises and associations and the concerned local government officials/institutions (Gregg, 2016).

Viet Nam is going through a process of TVET reforms but still has a long way to go to solve the skills shortages that continue to exist. Viet Nam is one of the fastest growing economies in Asia and has great socio-economic potential. However, economic growth has not been aligned with a strengthened TVET system conducive for business and industry collaboration. Nevertheless, the TVET reforms are in place and Viet Nam is likely to catch up. Despite the fact that business and industry collaboration still has a long way to go, there are several ongoing pilot projects, especially in the southern part of Viet Nam that can be replicated and if implemented successfully, might help Viet Nam to catch up with other countries in ASEAN.

58 <https://english.vov.vn/society/denmarkbacked-dual-vocational-training-proves-effective-in-vietnam-366602.vov>

59 Industrial Vocational College Hanoi, Ho Chi Minh City Vocational College, North-Eastern Vocational College of Technology, Agriculture and Forestry, and Southern Technology and Agroforestry Vocational College

60 British Council (2019), Chapter 6 presents the partnerships in Viet Nam.

61 <https://reach.org.vn/>

62 Rexroth has its own programme but also collaborates with LILAMA-2 International Technology College.

63 <https://vinfast.vn/>

64 <http://www.jcnnewswire.com/pressrelease/45240/3/Mitsubishi-Motors-Opens-New-Training-Center-in-Vietnam>

5

Comparative Analysis



This chapter provides a comparative analysis of business and industry collaboration in TVET in six AMS, namely Cambodia, Laos, Philippines, Thailand, Myanmar and Viet Nam. Despite differing historic and socio-economic contexts and traditions, the comparison provides an analysis of the stages of development and identifies external factors that impact business and industry collaboration in TVET in these countries. The chapter also offers examples of practices from the six AMS (“ASEAN practices”), covering different sectors and contexts and showing different approaches for engaging the business sector in TVET.

This comparative analysis identifies eight dimensions that were found to influence business and industry collaboration in TVET in ASEAN. These dimensions are a set of external and internal factors related to TVET governance and the different stakeholders that are instrumental for improving the quality and relevance of TVET overall.

The dimensions are:

1. **National TVET authority** spearheading business and industry collaboration in TVET
2. **Government policies and legislation** enabling business and industry collaboration in TVET, including financing mechanisms
3. **National economic development goals and sectoral policies** guiding business and industry collaboration in TVET
4. **Business membership organisations** committed to facilitating business and industry collaboration in TVET
5. **Workers' organisations** invested in strengthening business and industry collaboration in TVET
6. **TVET institutions** with a degree of autonomy, leadership and entrepreneurial thinking

7. **Work-based learning systems** established for the benefit of companies and learners
8. **Development partner programmes** facilitating business and industry collaboration in TVET

The dimensions are described in greater detail in the following sub-chapters. A comparison of the six AMS according to these dimensions is provided at the end of this chapter.

5.1. National TVET authority⁶⁵ spearheading business and industry collaboration in TVET

A clear vision for the TVET system along with leadership and transparent roles and responsibilities of the national TVET authorities are instrumental for establishing and maintaining collaboration between business and industry in TVET. In most countries, TVET is overseen by a range of national TVET authorities from ministries and departments, higher-level TVET bodies to specialised agencies focusing on aspects of TVET system development such as occupational standards or curriculum, TVET teacher training, employment services and so on. The responsibilities and capacities of national TVET authorities vary across the region with the Philippines being an example of a country where the national TVET authority, TESDA, is well-established and is leading the development of TVET.

In other countries, the responsibility for TVET is divided between two or more ministries (in most cases a Ministry of Education and a Ministry of Labour). For example, in Lao PDR formal TVET is the shared responsibility of the Ministry of Education and Sports (MOES) and the Ministry of Labour and Social Welfare (MOLSW) with other ministries in charge of skills training in their respective technical areas. In Cambodia, the Ministry of Economy and Finance has an implementing role as it is responsible for the management of the Skills

Development Fund for the TVET sector. The different roles and responsibilities can be described in legislation, which is often the case for specific regulated professions such as the health sector, or ministries can assume these roles as a result of their ambitions to improve skills development within their respective sectors (e.g., the tourism and hospitality sector in Cambodia).

The different roles of national TVET authorities are also often visible based on the initiatives that engage the business sector. These initiatives can be driven by ministry departments or national TVET authorities mandated with, for example, skill standard

setting or curriculum development. Within the system, institutionalised collaborations are often the responsibility of specialised authorities, while initiatives that are in pilot phases are overseen by ministries. There are also cross-ministerial mechanisms for the engagement of business and industry in TVET in a systematic way. These institutions are often referred to as national boards or councils (e.g., the National Training Board in Cambodia, the National Training Council in Lao PDR or the National Board of Vocational Training Coordination in Thailand) and are mandated to engage business and industry in dialogue on TVET system development rather than directly implement initiatives.

ASEAN Practice 1: Institutional leadership in occupational standards development – The Philippines

In the Philippines, TESDA develops competency standards for middle-level skilled workers. Competency standards are in the form of units of competency containing descriptors for acceptable levels of work performance. These descriptors are packaged into qualifications corresponding to occupations in the priority industry sectors. The qualifications correspond to a specific level in the Philippine TVET Qualifications Framework (PTQF).

The competency standards and qualifications, together with training standards and assessment arrangements, comprise the national training regulations (TR) with the corresponding competency assessment tools (CAT). The process of developing the TRs and CATs follow a quality assured system which actively involves TVET stakeholders from industry, academia and labour sectors. Industry experts are engaged at different stages of development by providing the competency requirements and the standards of work for a specific qualification in the industry they represent.

TRs serve as basis for registration and delivery of TVET programmes, assessment, certification and the development of curricula for the specific qualifications. They are promulgated by the TESDA board whose members are representatives from government ministries, labour organisations and businesses, particularly from the Philippine Chamber of Commerce and Industry (PCCI) and the Employers' Confederation of the Philippines (ECOP). Zonal orientations are organised by TESDA up to province level on TRs and CATs for a better and harmonised understanding. Industry experts who were involved in the development of these documents often serve as resource persons in the meetings.

⁶⁵ In this study, we use the umbrella term *national TVET authority* when referring to departments, boards, councils or other government bodies responsible for TVET. This can be a regulatory authority but also a national organisation with other specific mandates, such as policy coordination, curriculum development, assessment and certification.

In all six countries, there are national TVET authorities that collaborate with business and industry in occupational standards, curriculum development or assessment and certification on the basis of the competency-based education and training (CBET) system. The collaborations are at different stages of development with some of the countries just starting to establish initiatives (e.g., Cambodia which is conducting a trial of the CBET system within the framework of the ADB support project), while others are progressing (e.g., TPQI in Thailand or NSSA in Myanmar). There are also countries which have a comparably well-established system in place for engaging business and industry in TVET development. The experience of TESDA in the Philippines is presented as ASEAN Practice 1.

National TVET authorities in the six countries show that being open to collaborations with business and industry is a way to improve the relevance of skills training. They often allow piloting and welcome expertise and support from other countries and development partners to enhance business and industry collaboration in TVET. However, the lack of a clear vision, strategy and transparency in the TVET system at times results in a great variety of projects and approaches which are not always aligned or complementary. This has an impact on the success of initiatives and the general speed of progress in business and industry collaboration within countries, sectors and across the region.

In summary:

- There are still great differences in the mandates and capacities of national TVET authorities in the six countries, and therefore in the roles and capacities for business and industry collaboration.
- Some countries have a TVET board or council (Laos, Thailand, Cambodia) mandated with inter-ministerial-coordination and business and industry engagement while in the other countries the role is officially with the relevant ministries. Clear leadership of a national TVET authority can facilitate transparency for collaborations of the business sector in TVET at different levels.
- There is a general understanding among TVET authorities in the six AMS of the importance of business and industry collaboration in TVET. However, policies remain vague on how to achieve greater collaboration and little guidance is provided to those responsible for implementing collaborative approaches.
- A lack of a clear vision, strategy and leadership on how to collaborate with business and industry often results in a great variety of different initiatives, projects and approaches that are not always aligned with national strategic goals.

5.2. Government policies and legislation enabling business and industry collaboration in TVET, including financing mechanisms

All six countries have national policies, strategies or multi-annual plans in place for TVET, which to various extents address the need for business and industry collaboration in TVET. These policies also contain sections

on the topic; however, in most cases the reference is rather general, for example “cooperation with the private sector or industry has to be stimulated”, “more emphasis has to go to cooperative training and apprenticeships”, “pilot projects have to be encouraged” or “enterprise-based training should be elevated as a dominant delivery mode of TVET”.

Policies related to standards and curriculum development and those prioritising the most relevant industrial sectors and addressing cross-sectoral issues such as readiness for Industry 4.0 are common and well-defined. However, most of the policies on the governance and financial aspects of business and industry collaboration in TVET still remain relatively vague. Most of the policies encourage more business and industry collaboration or promise to develop more enabling legal and governance frameworks but are not yet specific enough with costed implementation plans. Also, there are varying degrees of detail with NTESDP (Philippines) containing a section on financing requirements while Cambodia's TVET Policy(2017–2025) does not provide any further detail in this regard. Even if policies geared towards collaboration are in place, the implementation of these policies is not always carried out successfully. This applies specifically to financing arrangements, such as various forms of skills development levies or even the implementation of skills development funds.

In addition to policies, enabling legislation is one of the factors that can make business and industry collaboration more successful. However, this also means that TVET legislation and other legislation (such as business legislation) need to be aligned. In terms of enabling legislation, it is found that countries with national TVET authorities with clear roles and responsibilities are in a better position to implement business and industry collaboration, especially in relation to standards and curriculum development. Transparency and clear roles of national bodies are one important factor for the business sector to gain trust and be able to engage with the TVET system.

Laws, including TVET laws, tend to be revised only every few years (e.g., the TVET Law in the Philippines dates back to 1994), and revision can be a lengthy process. Therefore, often other legal instruments are used to regulate certain aspects of TVET (e.g., apprenticeships,

teacher training, occupational skills standards). However, this can lead to a myriad of (or contradicting) legal documents that need to be harmonised at a certain point of time to remain relevant.

There is also a sentiment among companies in the six countries that they are regulated by the laws of ministries such as finance, commerce and industry (and to a certain extent labour) and that the legislation of “outside” ministries such as those overseeing education or TVET is imposed on them. This applies, for example, to skills development levies, which are enacted in TVET laws and add to the fiscal burden of companies. The lack of coordination in terms of business taxes often leads to non-implementation, which is the case in Viet Nam where the two ministries (MOLISA and Ministry of Industry and Trade) are in disagreement and have stalled the introduction and implementation of the TVET Skills Development Fund. Another example is Lao PDR where legislation for the establishment of the Skills Development Fund has been introduced by MOLSW, while MOES has developed a proposal for the establishment of a TVET Fund which is currently under review.

Other (conflicting) legislation can be found in the various labour laws, especially in relation to legislation that is supposed to support forms of WBL, such as apprenticeships, dual training or cooperative training. For example, some labour laws can be an obstacle for apprenticeships, since apprentices need to be considered as employees who need to be given contracts for the apprenticeship period. Such a situation does not encourage companies to engage in apprenticeships or dual training (as is the case in the Philippines). On the other hand, the complete absence of legislation or regulation can lead to the exploitation of apprentices as a “cheap labour force”.

It is found that none of the six countries has a comprehensive, non-conflicting legal framework which integrates and aligns TVET, labour and fiscal laws. While many

countries look at Germany, Switzerland, Austria and Australia as the most enabling systems, the governments of the six AMS also recognise that it is not always realistic that these models can be replicated given the different socio-economic and political systems and traditions of their countries. Thailand, following international experience, has established tax incentives that encourage

companies to invest in training. This system itself is not without shortcomings with SMEs often unable to access available tax refunds due to the administrative burden associated with applying for refunds. As presented in ASEAN Practice 2, Thailand is, however, an example of a country which has put in place enabling legislation to encourage business investment in training.

ASEAN Practice 2: Incentives for company engagement in skills development – Thailand

In Thailand, companies are encouraged to invest in staff training through a tax incentive. Thereby, companies with over 100 employees can deduct the cost of staff training at the rate of 200% from their annual tax payment. The Skills Development Promotion Act, B.E.2545 (2002) stipulates that companies are required to provide training to at least 50% of the total number of their employees. Otherwise, they are required to contribute to the Skills Development Fund set up by the Ministry of Labour. Companies with less than 100 employees are currently not required to pay to the Fund but have to report their employee numbers annually. The Fund provides an additional source of financing for the TVET system in Thailand.

Source: ILO (2016) Compilation of assessment studies on technical vocational education and training (TVET). Lao People's Democratic Republic, Mongolia, the Philippines, Thailand and Viet Nam.

In summary:

- All six countries have a TVET policy or strategy in place which contains sections on business and industry collaboration in TVET. However, in most cases these are stated in very general terms, remain vague on the governance and financial aspects of business and industry collaboration and do not include costed implementation plans.
- Even if policies geared towards collaboration are in place, the implementation of these policies is not always carried out successfully.
- None of the six countries has a comprehensive, non-conflicting legal framework in place, which integrates and aligns TVET, labour and fiscal laws.
- Ministries do not always coordinate planning and implementation of TVET/skills funds, especially if funds are to be levied from the business sector.
- Business and industry is generally reluctant to pay such levies if they are imposed by ministries of education/TVET instead of ministries of finance/industry.
- Establishing a comprehensive legal framework is often difficult as legal documents are conflicting (e.g., TVET, labour and fiscal laws), and therefore often other legal and policy instruments such as regulations, directives or similar purpose-based instruments are used to facilitate a (temporary) legal base to enable business and industry collaboration in TVET.

5.3. National economic development goals and sectoral policies guiding business and industry collaboration in TVET

Besides TVET-specific policies and enabling legislation, broader industrial and sectoral plans play a key role in strategically guiding business and industry collaboration in TVET. In general, the alignment of TVET policies and plans with national economic development goals is a prerequisite for ensuring that the TVET system can respond to current and future skill needs of the business sector. In terms of supporting business engagement, a clear understanding of priority sectors can help national TVET authorities channel their efforts and resources towards engaging in collaborations that fall in line with national economic development goals.

All six AMS have economic, industrial or sectoral development policies, plans or strategies that guide the economic development of the country. For example, Cambodia's Industrial Policy (2015–2025) has the vision of transforming the country from a labour-intensive industry to a skill-driven industry by 2025. Viet Nam's 5-year Socio-Economic Development Plan (2016–2020) aims at improving the quality of human resource and technological and scientific capability. In addition, there can be sector specific plans in place (or integrated as chapters in the national plans). For example, Lao PDR's Tourism Strategy 2006–2020 aims

at establishing a tourism and hotel vocational training centre, developing programmes that can strengthen and upgrade staff in the tourism sector and updating curriculum on tourism standards. However, there are different degrees of how national and sectoral goals are reflected in national TVET policies and/or translated into priorities for collaboration.

One example where priority sectors are clearly reflected in the TVET policy is the new NTESD (TESDA) Strategy for 2018–2022 in the Philippines. It prioritises the skills development initiatives with industries that have the potential to contribute the most significant growth to GDP and industries expected to create most of the skilled jobs. In Thailand, the national Thailand 4.0 policy, which prioritises several sectors that are to transform the country, and the Eastern Economic Corridor (EEC) initiative, which aims at boosting the petrochemical, automobile and electronic industries, provide a certain degree of guidance to the TVET sector with a number of business and industry collaborations in TVET focused on the major economic sectors promoted by the Government of Thailand. In all AMS, there are ongoing debates on the impact of the 4th Industrial Revolution (IR 4.0), which are mainly industry-driven. However, these debates are not yet reflected in national policies and plans. Cambodia is a pertinent example and is presented in more detail in ASEAN Practice 3.

ASEAN Practice 3: Linking industrial policies with skills development – Cambodia

Tourism is one of the key economic sectors in Cambodia and is one of the key sectors of the Industrial Policy (2015–2025). The Ministry of Tourism (MOT) is supporting skills development through various policies and initiatives. MOT has a dedicated Department for Training and Development which coordinates and supports the various initiatives. One of the key policy objectives is to create one million jobs in the tourism sector by 2020 and 1.8 million direct jobs by 2028 (Ly, 2018). This clearly requires more skilled workers in the sector.

Currently the training capacity of the Cambodian TVET sector is a maximum of 2,000 skilled graduates per year according to a recent skills mapping of the sector by MOT. To increase the training capacity, MOT is planning to establish two national tourism schools (in collaboration with the French development agency AFD) and is engaging the tourism and hospitality industry through what MOT envisages as a Public Private Partnership Skills Development Taskforce for the tourism sector. Thus, MOT appears to be leveraging the Industrial Policy (2015–2025) in developing skills for the tourism sector in Cambodia.

In summary:

- In the six studied countries, the impact of national economic policies and plans on business and industry collaboration in TVET varies, with the Philippines and Thailand more clearly aligning its development initiatives with national priority sectors.
- There are countries in the region where sectoral policies and plans guide business and industry collaborations, including Cambodia and Lao PDR in the tourism sector.
- In all six countries, there are debates on the impact of the 4th Industrial Revolution on skills development but clear national policies or plans were not found.

5.4. Business membership organisations committed to facilitating business and industry collaboration in TVET

The degree and way in which business membership organisations (BMOs) are engaged in collaborations within TVET varies across the six studied countries. In general, however, BMOs focus on providing their members with services, such as lobbying, networking opportunities or sectoral trade fairs and exhibitions, which are unrelated to TVET. Most, if not all, BMOs offer skills training in the form of long or short courses in management or in sector specific areas. The BMOs that are active in strengthening linkages with the TVET system do so through involvement in initiatives led by other

organisations and to a lesser extent through their own skill-related initiatives.

Involvement in TVET-related initiatives, such as skill needs assessments, is one way in which BMOs link with the TVET sector. In all the six countries, skills assessments and labour market studies are available (often conducted by development partners or consultants), which try to assess and project skills needs at a national level. These studies are mostly of a quantitative nature and provide information on the needs (and shortages) at the national level, per sector and sometimes according to occupation. BMOs are generally actively involved in such studies, either by taking a leadership role or as informants. For example, in 2014, LNCCI in Lao PDR conducted an enterprise survey with the support of the ILO. Even without structured assessments, BMOs

often serve as channels for governments to understand sectoral skills needs.

Other types of involvement in the TVET system include BMO's support in developing TVET policies, strategies, action plans or occupational skills standards. For example, in Myanmar, UMFCCI is a part of the Human Capital Building Committee which works to determine business and industry's training needs and to facilitate collaboration across ministries charged with skills development. In Thailand, TPQI is working to establish the Industry Competency Board, which is expected to give business representatives the opportunity to engage with TPQI's standard development work in a more strategic way.

Besides involvement in initiatives driven by other organisations, there are more proactive BMOs or confederations of BMOs, such as ECOP in the Philippines and VCCI in Viet Nam that advocate for a more enabling environment for skills development or organise TVET-related activities. For example, in Laos, the Lao Furniture Association (LFA) tries to link training providers with its members by organising regular trade fairs where companies have the opportunity to engage with TVET institutions and get an impression of students' skills in view of potential employment. In Viet Nam, VCCI has taken the lead on behalf of business and industry to institutionalise the collaboration with DVET, while in Cambodia, CAMFEBA has offered to lead the coordination of the various sector skills committees (SSCs), which focus on developing occupational/skills standards (and curricula) for identified skills needs.

In all these types of initiatives, clear leadership of BMOs, which is essential to developing sustainable collaborations, is still emerging. BMOs are active in responding to business and industry skills needs by being involved or developing "own" skills initiatives. This is, for example, the case in the Philippines, where a number of sectors have developed

financially- sustainable skills development systems (e.g., in tourism, construction, shipping and business process outsourcing). But their leadership in facilitating collaborations between their members and the existing TVET system is not yet evident. In many cases, collaborations are established based on a company's proximity to a school or through direct contact to the national TVET authority.

There are, however, cases where engagement of BMOs with the existing TVET systems can result in successful skills development initiatives despite difficulties. This is the case in Cambodia as described in ASEAN Practice 4.

The leadership potential of BMOs is clearly related to their capacities. However, with predominately MSMEs and SMEs as members, BMOs in the six countries lack the resources to engage in sustained efforts to improve the relevance of the TVET system. As a result, the role of development partners in terms of technical and financial assistance remains an important factor for the commitment and leadership of BMOs in TVET. This is, for example, the case in the logistics sector in Viet Nam, where the Australian Department of Foreign Affairs and Trade (DFAT) is involved as Australia has an interest in reducing the costs of logistics in doing business with Viet Nam (and the Asia region). In Laos, GIZ is invested in DCT and is supporting LNCCI in establishing a DCT Service Centre as a one-stop point for companies interested in participating in cooperative training. The role of development partners is in many cases found to be a success factor in business and industry collaboration in TVET, especially as the enabler of awareness, bringing parties together and providing technical and financial assistance in making collaboration work. A clear "hand-over" or exit strategy, that includes a financing plan, is however often instrumental in ensuring that donor support translates into long-lasting capacity building of BMOs.

ASEAN Practice 4: Industry association-driven initiatives in ASEAN – Cambodia

The Garment Manufacturers Association of Cambodia (GMAC) is an example of an industry association taking the lead in business and industry collaboration in TVET. Like any industry association, GMAC is interested in securing the business interests of its members in the industry but also has a strong commitment to skills development. GMAC set up the Cambodia Garment Training Institute (CGTI) as the leading skills training centre for the sector in Cambodia. The institute offers long and short courses aimed at demonstrating that the garment industry is not just a “low-end” skills sector but offers opportunities for career progression.

The CGTI was initially planned as a collaboration between GMAC and the DGTNET at the Ministry of Labour, but this appeared to be too challenging for both parties, especially in terms of governance and financing. In the end, CGTI received start-up financing (loan) from the AFD and is today fully operational with operations funded through an internal “levy” payable by GMAC members. The financing model can be seen as an example of a sector voluntarily implementing a skills development levy to make training financially sustainable and is ahead of government-imposed skills levies. Even though the collaboration with DGVET did not materialise in terms of governance and financing, CGTI (and its courses) are fully recognised by DGVET and the Ministry also recognises CGTI and GMAC as an example of good practice of business involvement in skills development.

It has also to be noted that in some cases BMOs, or leading companies in a sector, do not work collaboratively. For example, in the automobile sector many initiatives are driven by individual companies and their business and strategic interests in the countries where they operate. For example, Toyota, Hyundai, Nissan, ARM (General Motors and Mitsubishi) all have established local training centres in ASEAN countries. In most cases, these companies have collaborative agreements with one or more local TVET institutions, which they

provide with equipment and other support that allows them to offer basic skills training. In addition, these companies run their own training centres, which provide high-end, unique car or vehicle specific training. This model applies, for example, to Toyota, which partners with TVET institutions and also runs the Toyota Motor Philippines School of Technology and the Toyota College in Thailand. Hyundai operates a training centre, the Hyundai-KOICA Dream Center, with the National Polytechnic Institute of Cambodia (NPIC).

In summary:

- In all six studied countries, the leadership of BMOs in TVET is still emerging.
- BMOs are often involved in TVET-related initiatives, such as policy dialogues, skill needs assessments or skills development projects funded by donors.
- Currently, however the majority of BMOs focus primarily on providing their members with services, such as lobbying, networking opportunities or sectoral trade fairs and exhibitions, that are unrelated to TVET. Facilitating collaborations in TVET is not (yet) a part of their day-to-day operations.
- The leadership potential of BMOs is clearly related to their capacities which in the six countries is limited because of lack of resources to engage in sustained collaborative efforts.
- Given these constraints, development partners currently play a critical role in strengthening the capacity of BMOs to play a role in facilitating business and industry collaboration in TVET.

5.5. Workers' organisations invested in strengthening business and collaboration in TVET

The role and engagement of workers' organisations in business and industry collaboration in TVET is generally weak to non-existent in the six studied countries. Only the workers' organisations in the Philippines have a strong position in the TESDA Board and represent the interests of workers in skills development initiatives. This is linked to the fact that TESDA is a well-established institution with strong governance and is operating in a country with a long history of workers' organisations engagement in labour issues. In the other six countries, for example Cambodia, workers' organisations are represented in the National Training Board. In Thailand, workers organisations are involved in policy dialogue on TVET, for example, in the National Board of Vocational Training Coordination (NBVTC). It is, however, difficult to assess how active these organisations are in shaping the skills agenda in practice. It was also found

that various organisations, especially ILO but also NGOs, advise workers and workers' organisations on the importance of knowing their rights and responsibilities, for example, in relation to apprenticeships (e.g., contracts, remuneration) and how these can be put into practice by engaging in dialogue in the workplace. This applies specifically in sectors where workers have little opportunity to organise or mobilise themselves, for example in the garment industry. The engagement of the ILO is particularly noted in the development of apprenticeship systems and skills development in businesses where workers are often disadvantaged, such as garments and light manufacturing in Cambodia and Viet Nam.

While workers' organisations are represented at policy level (especially in the Philippines), there is little to no evidence that they are playing an active role in sector skills committees (SSC) which advise on issues such as skills requirements, skills gaps, occupational standards, curricula and assessment. This is contrary to the situation found in countries in Western Europe.

In summary:

- Among the studied countries, the Philippines has the most well-established system of engaging workers' organisations in TVET-related consultations through the TESDA Board.
- In the other five countries, workers' organisations have currently some but rather limited opportunity for representation and contribution to strengthening business and industry collaboration in TVET as a way to improve skills training of workers. This is specifically impacting the uptake, governance and quality of dual training/apprenticeships.

5.6. TVET institutions with a degree of autonomy, leadership and entrepreneurial thinking

An important factor that impacts business and industry collaboration is the degree of autonomy of TVET institutions and the level of leadership and management skills exhibited by its management. It was found that forward thinking leaders in TVET are more successful in forging collaborative agreements with business and industry than the less entrepreneurial, often traditional leaders, who may have climbed the rank in the public TVET sector but have little or no industry experience. The same applies to business leaders although they also need to be convinced that the collaborations with TVET institutions will be beneficial to their company. Companies need to be able to trust that their investment will not be wasted but yield a return for their businesses.

In general, the number of successful and scaled collaborations at institute level is still quite limited across the six AMS. The focus of business and industry engagement at the institute level is currently on internships for students, business engagement in advisory committees, provision of equipment by industry to the institutions, business involvement in career fairs and guest lectures by business representatives. In countries where TVET institutions are responsible for curriculum development and assessment, MoUs also often include support from business and industry partners for that.

The principals of the TVET institutions visited, including in countries like Viet Nam, Cambodia and Lao PDR, indicated that they initially had no clear understanding of how to initiate or manage such collaborations. This is more often the case for public than private TVET institution. Existing collaborations are often formalised through MoUs, but as indicated by the respondents of this study, a number of existing MoUs are still pending implementation. An agreement in the form of a Public-Private Partnership (PPP) is in most cases much more detailed in terms of financial and legal obligations and is often a form of a legally binding contract.

It is also found that private (including NGO-based) TVET institutions are generally better positioned to develop partnerships with business and industry. This can be explained by the fact that the leadership in these institutions is more entrepreneurial and has a better feel for the interests and operations of business and industry. Examples include REACH in Viet Nam, which has developed collaborations with more than 1500 enterprises and Dualtech in the Philippines, which developed multiple demand-driven industry collaborations that reportedly lead to almost full graduate employability. The same applies to TVET institutions operating in a more competitive environment or relying on financing from tuition fees (which mainly applies to private institutions). One example of a private institutions actively engaged in collaborations is presented in ASEAN Practice 5.

ASEAN Practice 5: TVET institutions as drivers of business and industry collaboration – Myanmar

The Singapore-Myanmar Vocational Training Institute (SMVTI) is a private training provider established in 2015. The Institute has established collaborations with several companies, including Mitsubishi Electric Asia Pte Ltd (MEAP) and Peace Myanmar Electric (PME) Holding. The company partners sponsor training equipment and engage in technology transfers in the area of residential air-conditioning. The training provided at SMVTI follows a curriculum developed by the institute with input from MEAP, PME and other companies.

Its Singaporean links are undoubtedly a pull factor for companies to engage with SMVTI. The institute has, however, been working continuously on improving its strategic approach to company engagement. It has established an Academic Advisory Committee consisting of BMOs, SMVTI and company representatives. The role of the committee is to guide the development and revision of SMVTI curricula to ensure the relevance of training to industry needs and standards as well as alignment with government policy. Twice a year, the institute organises a career fair which provides companies the opportunity to learn more about potential collaborations and graduate recruitment.

In summary:

- In general, the number of successful and scaled collaborations at institute level is still quite limited across the six AMS.
- Private (including NGO-based) TVET institutions are generally better positioned to develop collaborations with business and industry as they have a financial incentive to provide high-quality training.
- The focus of business and industry engagement at the institute level is currently on internships for students, engagement in advisory committees, provision of equipment by industry to the institutions, attending career fairs and offering guest lectures.
- In countries where TVET institutions are responsible for curriculum development and assessment, collaborative agreements also include support from business and industry partners in this area.

5.7. Work-based learning systems established for the benefit of companies and learners

Work-based learning (WBL) or work-integrated learning (WIL) is one of the most common mechanism for business and industry collaboration in TVET. It has been broadly defined by multiple authors as learning by doing or working. WBL/WIL is, at its core, the drive to offer practical, work-related learning. Increasingly, different teaching approaches are referred to as WBL, and different methods are used to promote, deliver and measure

WBL/WIL programmes. To add to that, WBL/WIL is often used interchangeably with other terms such as “practice-based learning”, “work-related learning”, “vocational learning”, “dual learning”, “apprenticeship”, “experiential learning” or “co-operative education and training”. In this study, WBL is used for consistency.

In the six AMS, various forms of WBL exist. These vary from internships, which are the most common type of WBL, to various forms of dual training/apprenticeships, which are often adapted to meet local requirements.

These local requirements can find their origin in legislation or in rules and regulations, which are set by ministries or other national TVET authorities. The role of these authorities varies – in some countries, for example Viet Nam, the role of the ministry is to provide oversight of the implementation of various forms of WBL, while in the Philippines the national TVET authority (TESDA) has to sign off on each individual dual training arrangement between learner, institution and enterprise. ASEAN Practice 6 presents an example of WBL in the wastewater sector in Viet Nam.

ASEAN Practice 6: Piloting of WBL for improved relevance of skills in the wastewater sector in Viet Nam (2013–2018)

An example of WBL in Viet Nam is the pilot on cooperative training for wastewater engineering technicians, which was carried out as a part of the Programme of TVET Reform in Vietnam supported by GIZ (Germany). The pilot project's objective was to improve the skills of wastewater and sewerage technicians in Viet Nam on the basis of German standards. The results were reported as follows:

- Development of occupational standards and training courses/curriculum in sewage engineering and wastewater treatment
- Development of the occupational competence assessment/examination system
- Organisation and delivery of short-term training sessions
- Development of the capacity of the Vietnam Water Supply and Sewerage Association to fulfil its role as the focal organisation for further implementation, roll-out and improvement of the outcomes
- Improved competences of TVET teachers and in-company trainers

The first 17 engineering technicians graduated in 2018. The project is considered a milestone in vocational training in Viet Nam, as it is the first cooperative training model based on German standards and has an industry association (VWSA) in the lead.

Even if the policies and legislation for WBL are formally in place, it does not mean that they are always implemented, especially in a coordinated and effective way. For example, labour laws can create obstacles for WBL, especially if they are considered too rigid from the viewpoint of employers (e.g., if employers are required to offer apprentices an employment contract after only six months of apprenticeship, which is the current practice in the Philippines). At the other extreme, in the absence of regulations on WBL (such as in Lao PDR), the implementation of obligatory internships is often left to individual schools with personal relationships that determine whether and where students can complete their work placements. Table 11 gives an overview of types of WBL and the responsible authorities in the countries examined in this study.

Country	Internships (unstructured)	Apprenticeships / Dual Training (structured and/or regulated)	Responsible authority
Cambodia	The most common form are internships, which are mandatory.	Apprenticeship models are piloted, for example, in the tourism and hospitality sectors.	Ministry of Labour and Vocational Training (MLVT) Ministry of Tourism (MOT) (tourism sector)
Lao	Student internships remain ad hoc and unregulated.	Dual Cooperative Training (DCT) is implemented at a small scale with GIZ support.	Ministry of Education and Sports (MOES)
Philippines	Internships are mandatory in all regular TVET programmes.	Some forms of dual training are implemented or piloted, e.g., through Don Bosco, Dualtech and MFI Polytechnic Institute.	Technical Education and Skills Development Authority (TESDA)
Thailand	Internships are mandatory for a number of programmes.	The coverage of Dual Vocational Training (DVT) in Thailand is growing with approximately one third of all initial TVET students enrolled in dual programmes. However, questions about the quality of training remain.	Ministry of Education (MOE)
Myanmar	Internships are the most common form of WBL. However, a systematic approach to internships or apprenticeships is not yet evident.	On-the job training is found across the country. Private providers, such as the Swiss-supported Centre for Vocational Training, are implementing apprenticeships.	Ministry of Education (MOE)
Viet Nam	Internships are the most common (and mandatory) form of WBL.	Some pilot projects in cooperative training (adapted models of dual training) are in place since 2016 with support from GIZ.	Ministry of Labour, Invalids and Social Affairs (MOLISA)

Table 11: Types of work-based learning in the six studied countries

There are forms of WBL in the six countries whereby companies or associations establish their own in-house training centres and provide training to their own staff. For example, the Garment Manufacturers Association in Cambodia (GMAC) runs its own training centre (CGTI) to complement apprenticeship training, which takes place in their members' enterprises. Some companies are also experimenting with WBL by

sending their students abroad for exchange programmes to increase employability. Examples include the Thai petroleum company, PTTEP, which supports a four-year high vocational certificate scholarship programme for students from Myanmar in the field of machinery. Through the programme, students are given the opportunity to study at the IRPC Technological College in Thailand.

In summary:

- The most common form of business and industry collaboration in TVET in the six AMS is WBL.
- Regulated and unregulated internships are the most common form of WBL in the six AMS.
- WBL, in the form of dual training/apprenticeships, is implemented in an adapted form in the Philippines, Lao PDR, Thailand, Viet Nam and Cambodia but does not cover the whole TVET system and is partly (Thailand, the Philippines, Cambodia) or fully (Lao PDR) supported by development partners.
- The role of the national TVET authorities varies from developing a regulatory framework for WBL to overseeing its implementation.

5.8. Development partner programmes facilitating business and industry collaboration in TVET

In all six of the studied countries, long-term programmes have been established between development partners and the host governments, BMOs or companies with TVET institutions. Often, development partners are the drivers of business and industry collaborations in TVET (for example, in Laos). The most notable development partner in the ASEAN region is GIZ (Germany) with long-term engagements in the TVET sector in Viet Nam, Lao PDR, the Philippines, Myanmar and Thailand⁶⁶ as well as through the regional programme (RECOTVET) that facilitates business and industry cooperation in TVET in the ASEAN region. Others include SDC (Switzerland), which has a presence in Myanmar, Lao PDR and Cambodia,

and Australia that is particularly active in Viet Nam and the Philippines. Another development partner active in the area of business and industry collaboration in TVET is AFD (France), which supports various projects and initiatives engaging industry in skills development.

In addition, a number of multilateral organisations, such as the ILO, play a major role in facilitating business and industry collaboration in TVET. Furthermore, financing from Asian Development Bank (ADB) and World Bank (WB) has contributed to the strengthening of TVET, including components which establish links with the business sector, for example, in Cambodia and the Philippines. In terms of capacity development and knowledge management on TVET in ASEAN, organisations such as SEAMEO and the Colombo Plan Staff College (CPSC) play an important role.

The approaches of development partners vary. The interventions from GIZ can be characterised as providing support to reforms through dialogue, technical support and pilot projects that are set up to support certain reform initiatives. GIZ also facilitates the establishment of business and industry collaboration in TVET through its programmes. Interventions from SDC and ADF are typically projects focused on broader themes (such as poverty reduction and disadvantaged youth) that include components of business engagement. Support from Australia is mostly sector- or theme-based. Interventions from multilateral organisations such as UNESCO and ILO focus on national-level technical support and knowledge building and dissemination. ADB and World Bank implement more long-term programmes with larger amounts of financing that are often focused on strengthening and reforming the entire TVET sector of a country.

Other development organisations that drive business and industry collaboration in TVET are various types of NGOs, such as Don Bosco and Pour un Sourire d'Enfant (PSE) in Cambodia (hospitality sector) and REACH in Viet Nam. The Don Bosco congregation has a strong commitment to TVET worldwide, particularly in the ASEAN region. In the Philippines, Don Bosco operates 17 TVET colleges that are centrally coordinated by Don Bosco One TVET,⁶⁷ a private institution, which centralises and coordinates all cooperation with business and industry at Don Bosco. This includes internships, collaborative agreements (e.g., equipping the schools

with automotive equipment for training) as well as tailor-made agreements to assist companies with their skills requirements. In Cambodia, Don Bosco runs the Don Bosco Technical School of Phnom Penh⁶⁸ with business linkages as well as the Hotel School Sihanoukville,⁶⁹ which also operates as a hotel. PSE⁷⁰ operates vocational training schools for the automotive, construction, business and hospitality sectors in Cambodia in collaboration with the industry, and its qualifications are recognised by DGVET. REACH⁷¹ is an NGO which relies partly on external funding. It has trained over 16,000 trainees and has collaborated with more than 1,000 businesses. Despite offering qualifications at the lower, initial levels of the qualification framework, the training has proven to be a pathway to employment for graduates.

While development partner support is generally welcomed by all stakeholders, critical voices are also heard, for example, in relation to the financial or organisational sustainability of development projects. There are also questions related to the extent to which foreign models of collaboration (e.g., Germany and Australia) can be replicated or modified and to what extent it is desirable to have more than one "foreign" system in one country, as in Viet Nam which is piloting German and Australian systems simultaneously. This study also encountered a certain reluctance among interviewed companies (for example in Lao PDR) to invest in skills training and collaborations given available donor funds for skills development.

⁶⁶ Indonesia, which is not included in this study, is another country where GIZ is active in facilitating business and industry collaboration in TVET.

⁶⁷ www.db1tvnet.com

⁶⁸ www.dbts.info

In summary:

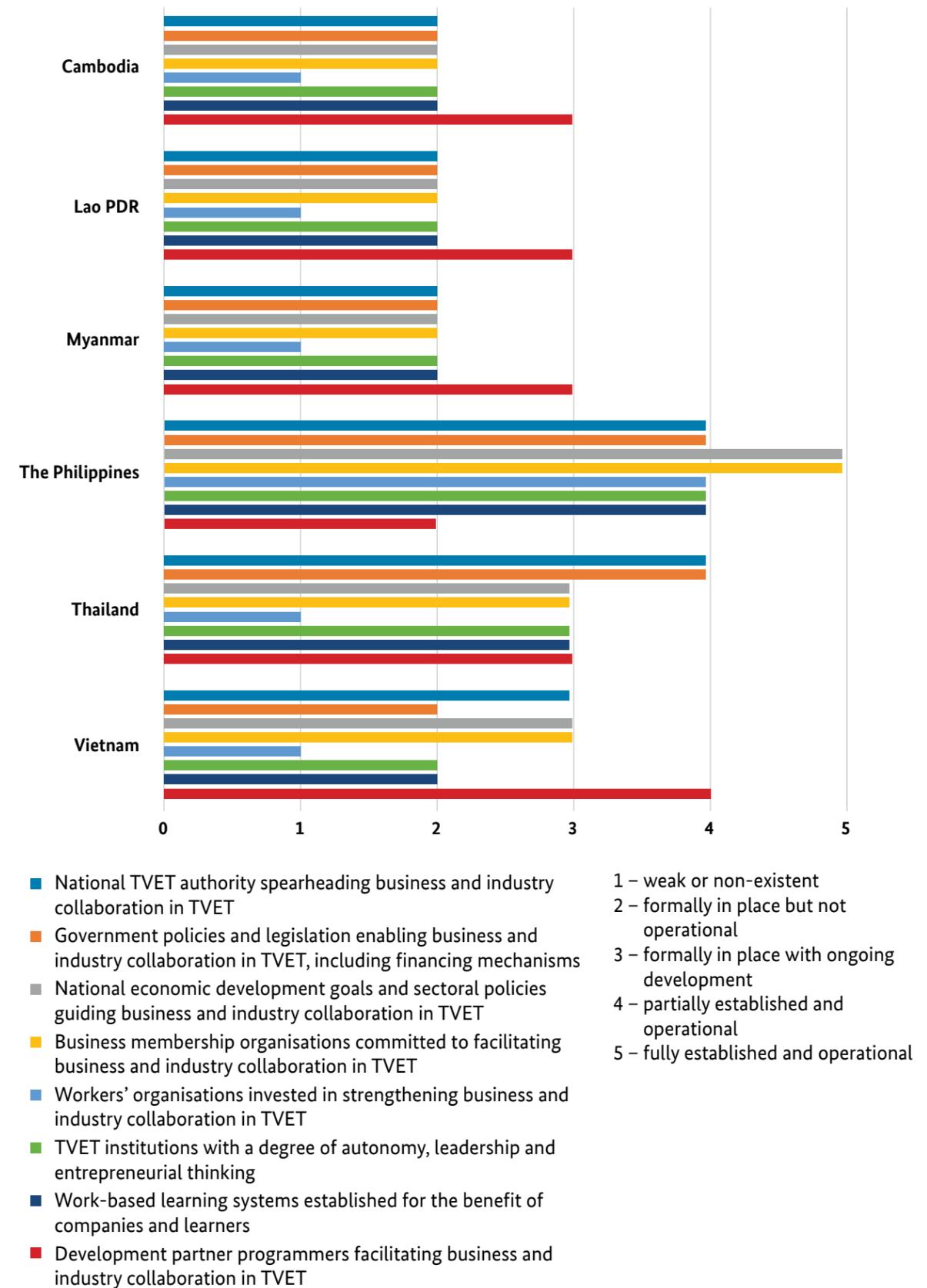
- There are different approaches by development partners to facilitating collaborations.
- Bilateral programmes often include projects (or project components) focused on business and industry collaboration in TVET (including initiating dialogue, partnership building and sometimes financing of pilot projects).
- Multilateral donors support governments in establishing systems (apprenticeships, occupational standards, etc.), strengthening ongoing TVET reforms, or engaging business and industry in policy dialogues. They are generally not engaged in financing pilot projects.
- NGOs implement comparatively smaller projects that provide, often non-formal, skills training.

5.9. Country comparisons

Although a ranking and full comparison of the six countries studied is not easy to provide, this study has identified eight dimensions that are important indicators of business and industry collaboration in TVET. The extent to which these dimensions are present in a country can be described on a scale of 1–5, with the following meaning of the scoring:

- 1 – weak or non-existent
- 2 – formally in place but not operational
- 3 – formally in place with ongoing development
- 4 – partially established and operational
- 5 – fully established and operational

The classification not only allows us to compare dimensions within a respective country but also to compare the dimensions between countries. The chart helps to conclude which countries are generally more advanced across dimensions. It also provides an overview of which dimensions are more or less in place and/or operational. The classification aims at facilitating dialogue about possible priority areas for the further development of business and industry collaboration in TVET in the ASEAN region.



69 <http://hotel-sihanoukville.com>
 70 <https://www.pse.ngo/pse-cambodia>
 71 <https://reach.org.vn>

There is no simple way of establishing lasting collaborations. Partnership building is a process which requires leadership, from both the training providers and the industry, and perseverance in designing and adapting set goals and

expectations. It is a process of establishing mutual trust through open communication and delivery on commitments. The following provides some basic key guiding principles for establishing successful collaboration at all levels.

Keys to Success

- Clear mission, objectives and concepts
- Mutually beneficial agreements
- Suitable implementation programmes
- Strong commitment from both parties (and understanding and support from entire staff and management)
- Capacity of both parties (including personnel involved)
- Clear and regular communication between both parties
- Monitoring of progress with regular feedback loops

Source: Adapted from GIZ. Developing and Strengthening Effective Cooperation between TVET Institutions and Industry – Guidelines

Based on the findings of this study of six AMS as well as considering the state of affairs in other ASEAN countries which were not part of the analysis, the following recommendations can be made to help countries in the region leverage the potential of business and industry collaboration in TVET to improve the relevance of TVET systems.

The recommendations are followed by a number of guiding questions that can serve as a starting point for policy makers engaged in reviewing current or developing new policies, strategies and practices aimed at engaging business and industry in TVET.

Recommendation 1: Streamline policies, legislation and governance in TVET

It is recommended to engage in a process of streamlining various legislation and policies related to business and industry collaboration in TVET in such a way that they are consistent, enabling and non-contradictory. This applies specifically to legislation and policies of Ministries of Education, Labour, Commerce/Trade/Industry and Finance. The process might be a lengthy and difficult one, but

it is important for streamlining resources, including towards priority sectors.

Establishing and/or strengthening inter-ministerial coordination mechanisms, such as boards or councils, which have representation from ministries, employers from priority sectors and workers' organisations, and possibly development partners as observers, is a step towards the development of a coherent national coordination system that gives business and industry a seat at the table. It is also recommended to strengthen national TVET authorities in their regulatory and coordinating function so that they can operate more effectively and efficiently and can have the capacity to increase direct engagement with BMOs, workers' organisations, companies (and development partners) with an interest in skills development. This is even more important if responsibility for TVET is shared across more than one ministry. Examples of such boards or councils can be found in the Philippines (TESDA) and Singapore, although here two responsible bodies are in place (National Manpower Council and Skills Future Singapore).

Guiding Questions:

- Are TVET policies and strategies with clear implementation plans in place to support business and industry collaboration in TVET?
- Are TVET laws aligned with or complimentary to other legislation (for example labour laws) in a way that supports business and industry collaboration in TVET?
- Are national TVET authorities in place that can effectively and efficiently support business and industry collaboration in TVET, especially if the responsibility for TVET is shared across more than one ministry?
- Are responsibilities within the TVET system clearly communicated? Is there a one-stop point for business and industry to learn about the TVET system and the potential for collaboration?

Recommendation 2: Establish financing mechanisms that stimulate business and industry collaboration in TVET

It is recommended that TVET/skills development levies and funds are introduced or revised with the involvement of business and industry, including in decision-making, and a clear objective of its purpose. These types of financing mechanisms should be placed high on national agendas. The financing should be designed in a way that ensures the ownership and commitment of business and industry ("value for money") rather than add to companies' tax burdens. Companies' investment in skills development which goes beyond a certain threshold should attract tax

benefits. Skills development funds should partially be "ploughed back" directly to companies and sectors and should "reward" different models of WBL. The proceeds of the funds should be used for skills development measures that are clearly communicated and implemented in a transparent way.

It is also recommended that in the absence of national financing mechanisms or in the face of challenges in establishing these mechanisms, sectoral mechanisms are developed. These can be piloted and later integrated in national skills development financing mechanisms (e.g., in collaboration with financing from government or development partners).

Guiding Questions:

- Are forms of skills development levies, tax breaks or other mechanisms for joint financing of TVET clearly stipulated in legislation or outlined in policies?
- Are these policies and laws implemented and operational? If yes, what can be done to further improve their application? If not, what must be done to implement or operationalise these mechanisms?
- What can be learned from skills development levies (and their governance) in other countries, such as the Malaysia Human Resource Development Fund⁷²?
- What can be done to increase the influence of business and industry in deciding how the proceeds from skills development funds are used?
- Are the existing financing arrangements for TVET clear and transparent?
- How can business and industry rely on benefitting from paying into existing financing initiatives for TVET?

Recommendation 3: Establish sector-based approaches to business and industry collaboration in TVET

It is recommended that business and industry collaboration in TVET is institutionalised at the sectoral level and preferably within the TVET system. This can be achieved through the establishment of sectors skills committees (SSCs), also referred to as industry skills councils or similar, which in most cases have a mandate to advise on skills requirements, occupational standards or unit standards of competence, curricula and assessment. SSCs are normally “industry-driven” but should also have representation from TVET organisations and workers’ organisations as these organisations have an interest in skills development for their members. SSCs can also be instrumental in facilitating business and industry collaborations.

There are number of BMOs that have dedicated units responsible for skills development in their sectors. The representatives from BMOs (skills units) should actively participate in national SSCs. This would allow BMOs to operate according to similar terms as SSCs and therefore create a more coherent system. SSCs should ideally be at a national level, for example, at the level

of Chambers of Commerce and Industry, or under the relevant national TVET authority rather than subcommittees within BMOs as the latter approach might not yield commitment and results. SSCs should ideally also include representatives from foreign companies operating in-country, as these companies often want their operations to rely on local skilled workforce rather than on more expensive expatriate workers.

SSCs are currently established and operational in a few countries (Philippines, Singapore, Malaysia) or are in the process of being established (Cambodia). Existing SSCs across all sectors and the region need to be strengthened with adequate technical and financial capacity, relevant human resources and representation from relevant BMOs, and a legal mandate. It is also recommended that the establishment of SSCs is prioritised in developing bilateral cooperation agreements between AMS and development partners when relevant. For example, countries may have a mutual interest in skills development in specific sectors, as is the case in the logistics sector in Viet Nam, which is supported by Australia (Australia has an interest in reducing the cost of transport and logistics in Viet Nam given their trade relationships).

Guiding Questions:

- What is the actual role and commitment of BMOs to business and industry collaboration in TVET?
- Which BMOs have a dedicated TVET/skills development unit and capacity to engage at policy level and/or to support business and industry collaboration in TVET at a sectoral level? In which sectors are BMOs active? Why are they less active in others?
- Are forms of SSCs institutionalised in the TVET system and are they fully operational? If not, what forms of strengthening would be required?
- What should be the role of workers’ organisations in SSCs?

Recommendation 4: Enable customised work-based learning models

It is recommended that implementation of work-based learning (WBL) models is made flexible to accommodate the nature

of business and industry in AMS, which is made up of predominantly micro and small enterprises. Furthermore, it must be acknowledged that some sectors are more conducive to WBL than others, depending on company size, technology intensity and

maturity (see literature review chapter 3.1 and chapter 5.6 for more information). While many TVET policies make WBL a priority, there are still many obstacles (e.g., governance, financial, legal) to effective implementation.

Therefore, it is recommended that trials with customised models of WBL be considered

as pilot projects. These can be implemented with the support of development partners or NGOs. These pilots should be exempt from stringent legislation and government control during the trial phase. The piloting should include a review from a number of key stakeholders and buy-in from business and industry partners for potential scaling up.

Guiding Questions:

- Are national policies and legislation in place to effectively support different forms of WBL?
- Are these policies and legislation coherent and well-understood by all relevant stakeholders?
- Can foreign models of WBL be implemented? What kind of customisation is required, for example, in terms of governance, management, quality, financing)?
- What can be learnt from pilot projects in WBL?

Recommendation 5: Strengthen leadership and increase autonomy of TVET institutions for successful business and industry collaboration in TVET

It is recommended that public TVET institutions are provided with sufficient autonomy and capacity to build successful collaborations with the business sector. The introduction of competitive financing for public TVET institutions whereby parts of financing allocations are contingent on active business and industry collaborations should be considered. Necessary autonomy for public institutions is therefore essential.

The development of leadership and management skills, necessary for the establishment and management of collaborations with business and industry, is equally important. Successful development and implementation of collaborations (either formalised through MoUs or through more contractual arrangements such as

PPPs) should be a part of the performance assessment of TVET institutions’ leadership and a key determining factor for promotions or a continued position in leadership and management.

The implementation of targeted capacity development programmes for the leadership of TVET institutions is recommended. Such leadership and management trainings should also include the dissemination of examples of good practice across sectors and throughout the region and ideally include active participation/guest talks by industry leaders. The trainings should furthermore include a high degree of “learning by doing”, for example by tasking participants with and coaching them in the development and management of concrete activities towards partnership development. The developed work plans should ideally feed into the overall institutional planning and financing allocations for institutions.

Guiding Questions:

- To what extent do TVET institutions have the autonomy and leadership capacity to develop and manage collaborations with business and industry?
- Can (partly) competitive financing arrangements be introduced for financing allocations in TVET?
- How do leadership and management performance assessments of TVET institutions address cooperation with business and industry?
- Are relevant capacity development programmes for the leadership of TVET institutions available and accessible? If not, who can take the lead in the development and roll-out of such capacity development programs?

Recommendation 6: Harness development partner support to strengthen business and industry collaboration in TVET

It is evident that in all six countries, development partners currently play an important role in supporting AMS in their efforts to strengthen the relevance of their TVET system through enhanced collaborations with business and industry at different levels. There are numerous initiatives in the six AMS and beyond, where development partners are facilitating collaborations with national TVET authorities or directly with training providers. This recommendation is aimed at all stakeholders (government organisations, BMOs, industry

and TVET institutions) that have a mandate or opportunity to engage with development partners (government partners or their implementing organisations).

To ensure that development partners support AMS in developing sustainable collaborations, it is recommended that donor coordination mechanisms are put in place, or if they already exist, that they take up the topic of business and industry collaboration in TVET in a strategic way. The roles and programmes of development partners need to be transparent, and exit and (financial) sustainability strategies need to be in place at the onset of programmes.

Guiding Questions:

- Are donor coordination mechanisms in place?
- Are initiatives aimed at strengthening business and industry collaboration in TVET clearly understood and discussed in relation to donor programmes?
- What are the current exit and sustainability strategies for development partner supported projects that facilitate business and industry collaboration in TVET?
- Is more research into and dissemination of good practices in business and industry collaboration in TVET required? Who can conduct and finance such research?
- How can successful donor/NGO-initiated business and industry collaborations in TVET be scaled up?

Appendix 1

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Appendix 2

Stakeholders in business and industry collaboration in TVET per country

Cambodia					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Key Public TVET Stakeholders ⁷³	National Training Board (NTB)	<ul style="list-style-type: none"> Established to orient TVET to meet the skills needs of the economy and ensure better policy and programme coordination in skills development among concerned institutions. Consists of 40 members, including 15 line ministries, employers, unions, NGOs and some development partners. Charged with implementing the National Strategic Development Plan (NSDP) with the National TVET Development Plan (NTDP 2017–25). 		<ul style="list-style-type: none"> Formulates the national training plans in TVET in consultation with industry and businesses. Provides general and ad hoc policy advice in relation to business and industry collaboration. 	<ul style="list-style-type: none"> Employers and business enterprises are represented in NTB. NTB is not the regulator of TVET but advises on policy and strategy only.
	Ministry of Labour and Vocational Training (MoLVT), Directorate General of Technical and Vocational Educational and Training (DGTVET)	<ul style="list-style-type: none"> Responsible for labour issues, workforce and vocational education and training. DGTVET is mandated to manage the national implementation of the NTB strategy using the national programme-based budget. 		<ul style="list-style-type: none"> Implements projects with development partners which aim at strengthening business and industry collaboration in TVET, for example Strengthening TVET in Cambodia Project with ADB; ILO Skills for Trade and Economic Diversification Project (STED). Operates the National Training Fund which provides additional funding to TVET providers to supplement their regular funding. Organised and developed SSCs on a pilot basis with representatives from the BMOs in garments, tourism and hospitality, food and light manufacturing. Established an Industry Advisory Group for Manufacturing prior to the establishment of SSCs. 	<ul style="list-style-type: none"> MOLISA/DGVET is supported by ADB through the Strengthening TVET in Cambodia Project.

⁷³ These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

Cambodia					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
	Ministry of Tourism	<ul style="list-style-type: none"> Manages and develops the tourism industry in Cambodia through the formulation of programmes in compliance with national policies and coordinates activities with various institutions including business and industry for the development and promotion of the tourism industry in the country. Catalyses private investments, strengthens promotional and marketing efforts and provides trained manpower for the industry in collaboration with private institutions. 		<ul style="list-style-type: none"> Created the National Committee for Tourism Professionals (NCTP) to develop mechanisms, standards, regulations and activities to support the implementation of the mutual recognition agreements (MRA) for tourism professionals in Cambodia in line with ASEAN Common Competency Standards for Tourism Professionals (ACCSTP). Members of the committee are representatives from the ministries, training schools, tourism associations and hotels. A Tourism and Hospitality Advisory Board with members from the Cambodia Hotel Association was established to run the Faculty of Tourism and Hospitality at NPIC. MOT facilitates work experiences for interns and students in the sector. 	<ul style="list-style-type: none"> The coordinating role of a line ministry like MOT is relatively unique in business and industry collaboration in ASEAN.
TVET institutions – public and private ⁷⁴	National Polytechnic Institute of Cambodia (NPIC)	<ul style="list-style-type: none"> Public higher education institution which provides career-oriented and technically based programmes developed in collaboration with business and industry to help graduates with local and overseas employment. 		<ul style="list-style-type: none"> Works with many public and private companies to assist young workers gain workplace-based experiences. Some of these companies include Hyundai and Samsung (Korea)l Chipmonginsee (Cambodia) and Renet (Japan). 	<ul style="list-style-type: none"> One of the leading government TVET institutions in terms of business and industry collaboration in TVET.
	National Technical Training Institute (NTTI)	<ul style="list-style-type: none"> A public institution providing training in the fields of civil engineering, electronic and electrical engineering and information technology. Serves as the national technical teacher training institution. 		<ul style="list-style-type: none"> Works with many public and private companies to assist young workers with additional professional training courses. Some of these companies include Amco, KTC Cable Company, Telecom Cambodia and Kampot Cement. NTTI has sought to provide quality technical vocational education by surveying the needs of industry during annual curriculum reviews. 	<ul style="list-style-type: none"> One of the leading public TVET institutions in terms of business and industry collaboration in TVET.
	Industrial Technical Institute (ITI)	<ul style="list-style-type: none"> Public institution providing training in the fields of automotive engineering, electrical engineering and information technology. 		<ul style="list-style-type: none"> Works with many public and private companies to assist young workers gain workplace-based experiences. Some of these companies include ARM (Ford), China-ASEAN Innovation Centre, Tasaki (Thailand). 	<ul style="list-style-type: none"> One of the leading public TVET institutions in terms of business and industry collaboration in TVET.

74 The institutions listed under this category include mainly those interviewed as part of the country visits conducted for this study.

Cambodia					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Business membership organisations	Garment Manufacturers Association in Cambodia (GMAC)	<ul style="list-style-type: none"> Represents the garments and footwear industry and has become a recognised association in Cambodia that promotes and safeguards the rights and interests of the garment industry. 		<ul style="list-style-type: none"> Actively involved in consultations and discussions among its members on skills-related issues for the growth and development of the garment industry. Collaborated and participated in consultations on the TVET Development Plan with DGTVET. Runs the CGTI, fully funded by GMAC members. 	<ul style="list-style-type: none"> GMAC is a BMO that has developed and manages a financially sustainable training centre which is funded by its members through a “levy”.
	Cambodia Federation of Employers and Business Associations (CAMFEBA)	<ul style="list-style-type: none"> Autonomous and independent organisation of employers and BMOs⁷⁵ registered under the MoLVT. Largest federation representing, promoting and safeguarding the rights and interests of employers in terms of labour-related issues. 		<ul style="list-style-type: none"> Assists its members in policy and programme development on TVET. Takes initiative to support the SSCs under MoLVT. 	<ul style="list-style-type: none"> Leads in representing the industry and supports the development of SSCs.

⁷⁵ Membership consists of three categories (individual members, association members and associate members) and makes up over 2,000, unionised and non-unionised businesses throughout Cambodia. These are small and medium enterprises, multinationals and major business associations.

Lao PDR					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Key Public TVET Stakeholders ⁷⁶	National Training Council (NTC)	<ul style="list-style-type: none"> Conducts research and holds consultations concerning policies and strategies for the development of TVET and occupational skills. Holds broad responsibilities for TVET and skills development, including oversight of occupational standard-setting, student assessment and certification and quality assurance. Main body to support PPP in overseeing the Trade Working Groups (TWGs). 		<ul style="list-style-type: none"> Established the first School Advisory Boards with business and industry representation in TVET institutions to improve demand orientation in TVET. Leads ongoing discussions on the establishment of a training fund, which has been introduced as a way of enhancing business and industry collaboration in TVET. 	<ul style="list-style-type: none"> Current performance limited to organising board meetings and workshops of the TWGs to produce occupational standards and to address requests of companies interested in hiring interns. Has an important role and a wide scope of work but needs institutional strengthening.
	Ministry of Labour and Social Welfare (MOLSW), Department of Skills Development and Employment (DSDE)	<ul style="list-style-type: none"> Main government ministry responsible for overseeing labour and employment concerns of the country. DSDE is responsible for skills and training standards, training delivery, skills competitions, development of the labour market information system as well as testing and certification. Oversees 11 training institutes at the national level, including four private centres. These include 10 Labour Skills Development Centres and one Skills Development Institute (Lao-Korea Skills Development Institute). The centres provide training from level 1–3 while the institute provides training from level 4–5. 		<ul style="list-style-type: none"> Responsible for developing competency standards, testing and certification through technical committees which include business and industry representatives. Pilot tested an internship programme with motorcycle companies in Champasack through their Southern Skills Development Center (SSDC).⁷⁷ Coordinates with institutions involved in TVET including the Lao National Chamber of Commerce and Industry (LNCCI). Leads the creation of a training fund based on a levy initiated by the 2008 Labour Law. MOLSW is committed to implementing it through a decree. MOLSW and LNCCI have been discussing the establishment of a training fund since financing is one of the areas where business and industry involvement can contribute to the development of TVET. 	<ul style="list-style-type: none"> There is an overlap in the TVET/skills functions of MOLSW and MOES, but little cooperation between the two ministries.

⁷⁶ These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

⁷⁷ Southern Skills Development Center(SSDC) is under the MOLSW and supports and conducts TVET programmes for the southern province of Lao PDR.

Lao PDR					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
	Ministry of Education and Sports (MOES), Department of Technical and Vocational Education (DTVE)	<ul style="list-style-type: none"> Responsible for the overall implementation of reforms which affect all aspects of the formal TVET system. Undertakes educational reforms in line with the Education Sector Development Framework (ESDF). Responsible for the implementation of the TVET Development Plan 2016–20 through its Department of Technical and Vocational Education (DTVE) in collaboration with MOLSW, non-formal and other institutions. 		<ul style="list-style-type: none"> Responsible for improving the quality and relevance of TVET in Lao PDR including through company engagement. 	<ul style="list-style-type: none"> There is an overlap in the TVET/skills functions of MOLSW and MOES but little cooperation in implementing the TVET Development Plan 2016–20.

Lao PDR					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
TVET Institutions - public and private ⁷⁸	Lao German Technical College (LGTC)	<ul style="list-style-type: none"> A vocational training school under MOES offering courses to students who completed lower secondary school or high school. Degrees range from skilled worker to bachelor's degree in automotive, metal machinery, electronics, plumbing and agro-machinery. 		<ul style="list-style-type: none"> Cooperates with local and international companies, for example: Toyota and RMA Ford in the automotive section; Phu Bia Mining in metal and electrical sections; Kubota for the agro-industry section; Endress Hauser and Nam Thuen² Power Company for the electrical section; BHS corrugated for the electrical and mechanical sections. 	<ul style="list-style-type: none"> Considered the flagship institution for vocational training in Lao PDR.
	Lao-Korea Institute for Skills Development	<ul style="list-style-type: none"> A vocational training centre under MOLSW supported by the Korean Government (KOICA). 		<ul style="list-style-type: none"> Established collaborations with companies (such as Kolao and Siemens Electrics) mainly focusing on student internships. 	
	Garment Skills Development Centre (GSDC)	<ul style="list-style-type: none"> Registered as training entity under the Association of Lao Garment Industries (ALGI). Aims at increasing the sustainability and competitiveness of Lao PDR's garment industry through skills development, consultancy and coaching services. Established in 2010 with funding from the Trade Development Facility (TDF), a multi-donor trust fund that promotes trade and private sector development in Lao PDR. 		<ul style="list-style-type: none"> Established to support the garment industry in upskilling garment workers to supervisor level. The TDF funding has ceased and the centre is now engaged in service provision to companies in the garment sector to sustain its activities. 	<ul style="list-style-type: none"> Actively engaging with companies to invest in training provided by the centre. There is however a reported reluctance among companies to pay for trainings.

⁷⁸ The institutions listed under this category include mainly those interviewed as a part of the country visits conducted for this study.

Lao PDR					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
	National Institute of Tourism and Hospitality (LANITH)	<ul style="list-style-type: none"> • Its vision is to build a tourism and hospitality centre of excellence to educate and train students. • Created with support from Luxembourg (LuxDev) for the tourism and hospitality sector. • Offers diploma and short courses in Vientiane and Luang Prabang. • Accredited as training institution by MOES/DTVE. 		<ul style="list-style-type: none"> • Cooperates closely with private businesses in the tourism and hospitality sector. • Provides training through Passport to Success, a skills training programme, aimed at lifting the level of service quality for tourism and hospitality for those already working in the industry. The training follows the ASEAN competency standards in tourism. 	<ul style="list-style-type: none"> • Faces constraints such as infrastructure limitation and lack of qualified trainers.
Business membership organisations	Lao Chamber of Commerce and Industry (LNCCI)	<ul style="list-style-type: none"> • Independent body with more than 1,000 members represented through the chambers of commerce in 14 provinces and sector-based business associations and groups. 		<ul style="list-style-type: none"> • Primary nexus between the state and private enterprises. • Contributes to the formulation of policies and legislation relevant to the national business environment. 	<ul style="list-style-type: none"> • The capacity of LNCCI is currently limited. • The chamber benefits from donor-funding. • A number of member associations are located together with LNCCI.

Myanmar					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments and Observations
Key Public TVET Stakeholders ⁷⁹	Ministry of Education (MOE), Department of Technical and Vocational Education and Training (DTVET)	<ul style="list-style-type: none"> MOE is the main body in charge of formal TVET in Myanmar. Administers 35 Government Technical High Schools (GTHS) at certificate level and 23 Government Technical Institutes (GTI) at diploma level. 		<ul style="list-style-type: none"> DTVET and Sea Lion have signed a 5-year collaboration agreement to establish the School of Industrial Training and Education (SITE), an institute for advanced industrial technology training. Established the Singapore-Myanmar Vocational Education Institute (SMVTI) as a state-of-the-art training provider. The Institute maintains a number of collaborations with companies, as described below. 	<ul style="list-style-type: none"> The Government of Myanmar is currently driving efforts to expand access and improve the quality of TVET as exemplified by the collaborative efforts to establish training institutions. The efforts are still donor-supported, but DTVET is actively steering these efforts. There is currently still limited capacity and funding to drive an agenda for industry-led TVET in Myanmar.
	Ministry of Industry (MOI)	<ul style="list-style-type: none"> Works to foster labour intensive industries, agro-based and value-added industries and to develop export-oriented industries through the expansion of the domestic market. Promote engagement of the private sector in state-owned enterprises Responsible for six Industrial Training Centres (ITCs). 		<ul style="list-style-type: none"> GIZ is supporting ITC in Sinda in developing a private sector engagement plan and works, among other activities. 	
	Ministry of Labour Immigration and Population (MOLIP), Department of Labour (DOL)	<ul style="list-style-type: none"> Works to protect and ensure the rights of workers. 		<ul style="list-style-type: none"> Oversees the work of the National Skills Standard Authority (NSSA) which develops occupational standards with the involvement of business and industry. 	

⁷⁹ These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

Myanmar					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments and Observations
TVET Institutions – public and private ⁸⁰	Singapore-Myanmar Vocational Education Institute (SMVTI)	<ul style="list-style-type: none"> Established in 2015 based on an agreement between the Myanmar and Singapore governments. Provides practice-oriented training to equip Myanmar youth and adults with industry-relevant skills. Offers courses in mechatronics, general welding, residential air-conditioning, building fixtures and equipment, electrical technology, electronics and hospitality. 		<ul style="list-style-type: none"> SMVTI collaborates with a number of international and national companies including CAT MSP, Abloy, Sedona, Festo, Parkroyal, Sea Lion, Hakko, etc. The most established collaboration is with Peace Myanmar Electric (PME) and Mitsubishi Electric Asia Pte Ltd (MEAP) who jointly set up training labs, provide company trainers to train SMVTI teachers, engage in curriculum development and revisions, sponsor book prizes and provide students with on-the-job training. 	<ul style="list-style-type: none"> SMVTI was set up with support from Singapore but the funding is currently being reduced and the institute is looking to introduce short courses for companies in order to diversify its funding. The motivation of companies to engage with SMVTI includes, among others, its linkages with the Singapore Chamber of Commerce and Industry and SMVTI's reputation as one of the best TVET colleges in Myanmar.
	School of Industrial Training and Education (SITE)	<ul style="list-style-type: none"> Established in 2018 to provide practical skills for advanced manufacturing technologies. 		<ul style="list-style-type: none"> Established in collaboration between MOE/DTVET, Sea Lion and its global partners. SITE is planning to establish an Industry Collaboration Office which will serve as a one-stop shop for company engagement. 	<ul style="list-style-type: none"> SITE has been established with equal shares of investment between the Government of Myanmar and its business partners. Construction of SITE is currently (2019) being finalised.
	Yadana Welding Training Centre (Yangon)	<ul style="list-style-type: none"> Operates under MOLIP. Provides training courses in welding, electrical engineering, air-con installation and construction for disadvantaged students. Accredited by NSSA to provide assessment of air-con technicians and electricians as well as assessor/supervisor trainings and soft skills courses. All training courses are available to students free of charge. 		<ul style="list-style-type: none"> The centre has a well-established cooperation with the Thai petroleum company PTTEP, which provides financial support for trainings and covers the cost of consumable and non-consumable training materials for basic courses in welding, electrical engineering and air-con installation. PTTEP also supports a 4-year high vocational certificate scholarship programme for students from Myanmar. Through the programme, students are given the opportunity to study at the IRPC Technological College in Rayong Province, Thailand. 	<ul style="list-style-type: none"> The centre's leadership spearheaded the establishment of the existing collaboration with PTTEP as well as engagements at ASEAN-level.

80 The institutions listed under this category include mainly those interviewed as part of the country visits conducted for this study.

Myanmar					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments and Observations
Business membership organisations	The Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI)	<ul style="list-style-type: none"> • Main umbrella organisation representing business and industry in Myanmar. • Provides information services, trainings and consultancy services to its members. 		<ul style="list-style-type: none"> • Provides in-house training courses and is involved in policy dialogues with the government and development partners on the role of business and industry in TVET. 	<ul style="list-style-type: none"> • UMFCCI needs capacity building and technical guidance. • Currently there is little strategic engagement of UMFCCI in linking its members with TVET.

The Philippines					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Key Public TVET Stakeholders ⁸¹	Technical Education and Skills Development Authority (TESDA)	<ul style="list-style-type: none"> Government agency mandated to provide direction, policies, programmes and standards towards a quality-assured and inclusive technical education and skills development and certification system. Oversees TVET policies and programmes in the country in collaboration with relevant partners and stakeholders. 		<ul style="list-style-type: none"> The TESDA Board is a tripartite body including government, employers and workers representatives. The Employers Confederation of the Philippines and the Philippine Chamber of Commerce and Industry are active members of the TESDA Board. The Board promotes collaboration with business and industry on TVET. Key authority to ensure that there are regular consultations and collaboration with the private sector for a demand-led TVET. 	<ul style="list-style-type: none"> TESDA is considered the most advanced TVET authority in the ASEAN region.
	Department of Trade and Industry (DTI)	<ul style="list-style-type: none"> DTI supervises TESDA. DTI is the government agency tasked as the main economic catalyst that enables innovative, competitive, job generating, inclusive business and empowers consumers. 		<ul style="list-style-type: none"> A recent Executive order (October 2018) of the Philippine President has assigned TESDA to this new supervising body which rationalizes the need to ensure close cooperation with business and industry. Previously partnered with TESDA for entrepreneurship training. 	<ul style="list-style-type: none"> Activities are on-going for the transfer of TESDA from the Office of the President to the Department of Trade and Industry in an attempt to make TESDA respond better to needs of industry.
	Department of Labour and Employment (DOLE)	<ul style="list-style-type: none"> Charged with policy-making, programming and coordinating of work related to promoting gainful employment opportunities and optimising the development and utilisation of the country's manpower resources and advancing workers' welfare. Former government agency supervising TESDA. 		<ul style="list-style-type: none"> Employers' and workers' representatives are active members of the Tripartite Industrial Peace Council (TIPC) under DOLE. The TIPC is the main consultative and advisory mechanism which serves as a forum for tripartite consultation among organised labour, employer and government in the formulation and implementation of labour and employment policies. Partners include the Philippine Chamber of Commerce and Industry (PCCI), TESDA and PCCI HRD Foundation. 	<ul style="list-style-type: none"> The TIPC regularly meets to discuss labour and employment issues and concerns including those affecting industries and businesses.

81 These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

The Philippines					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
TVET institutions – public and private ⁸²	Don Bosco Schools	<ul style="list-style-type: none"> Don Bosco is a private institution with 17 campuses in the Philippines. 		<ul style="list-style-type: none"> Don Bosco has strong links with industry (internships but also tailor-made training arrangements with enterprises). 	<ul style="list-style-type: none"> Don Bosco has recently centralised all its operations (including industry and business partnerships) through the “DB One TVET” coordination centre in Manila.
	Dualtech Training	<ul style="list-style-type: none"> Dualtech Center is a private training centre, 50 km outside of Manila. It has pioneered the Dual Training System (DTS) in the Philippines. It was established in 1982 adapting the German model, where the school and industry train students in real life-work experience. 		<ul style="list-style-type: none"> One of the few major institutions that provides dual training in the Philippines, purely on a needs basis by industry. 	<ul style="list-style-type: none"> Programs (and qualifications) are not regulated by a Training Regulation (TR) under TESDA.
	MFI Polytechnic Institute	<ul style="list-style-type: none"> MFI Polytechnic Institute Inc. (formerly MFI Foundation, Inc.) is an education service provider of career-oriented and technology-related programs. 		<ul style="list-style-type: none"> One of the few major institutions that provides dual training in the Philippines, specifically through the “Industrial Technician Program”. 	<ul style="list-style-type: none"> Unlike Dual Tech, MFI follows the TESDA Training Regulations.
Business membership organisations	Philippine Chamber of Commerce and Industry (PCCI)	<ul style="list-style-type: none"> Serves as the voice of the Philippine business community; a proactive catalyst of development, promoting and supporting the drive for globally competitive Philippine enterprises in partnership with government, local chambers and other business organisations. 		<ul style="list-style-type: none"> PCCI has a partnership with TESDA and is a member of the Board. Promotes and facilitates the Dual Training System (DTS) and assists business chambers, industry and trade associations and enterprises in the promotion and implementation of TVET programmes. 	<ul style="list-style-type: none"> PCCI has committees on Education as well as Human Resource Development. PCCI supports pilot dual training projects with GIZ. The two most active PCCI offices are Manila and Cebu.
	Employers Confederation of the Philippines (ECOP)	<ul style="list-style-type: none"> ECOP is the employer’s organisation of the Philippines. Aims at advancing employers’ interests in all labour, social and employment issues through proactive engagement and representation at the national, regional and international levels. 		<ul style="list-style-type: none"> Serves as an active member of the TESDA Board for policy and programme inputs to the country’s TVET plans and programmes. Serves currently (2019) as the President of the ASEAN Confederation of Employers (ACE) and took the lead in developing the Manila Declaration (2018): ACE Framework on Skills Development. 	<ul style="list-style-type: none"> ECOP is more engaged in policy and advocacy rather than providing technical support or being engaged in pilot projects between industry and TVET.

82 The institutions listed under this category include mainly those interviewed as part of the country visits conducted for this study.

Thailand					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Key Public TVET Stakeholders ⁸³	Ministry of Education, Office of Vocational Education Commission (OVEC)	<ul style="list-style-type: none"> Provides recommendations for policies, developmental plans, standards and curriculum for all levels of vocational education. Coordinates work on vocational education and professional standards. In charge of teachers and vocational education personnel. Coordinates cooperation between the government and the private sector in skills development. 		<ul style="list-style-type: none"> Actively engaged with a number of formal dialogue structures that bring business and industry together with the public sector to work on different aspects of the TVET systems. Some examples include the Public-Private Partnership (PPP) Committee on TVET or the National Qualifications Framework (NQF) Mobilization Committee. 	<ul style="list-style-type: none"> OVEC is engaged in a number of collaborations with companies both well-established (CP All, Petroleum and Petrochemical companies) and at the MoU stage. Despite efforts to engage business and industry, there is some concern from the sector about OVEC.
	Ministry of Labor, Department of Skills Development (DSD)	<ul style="list-style-type: none"> In charge of non-formal vocational training for skills upgrading in private companies. Provides capacity building for workers and entrepreneurs. Develops standards and promotes skill testing and skill competitions. 		<ul style="list-style-type: none"> In 2017, DSD Thailand launched a Skills Development Network for Thailand 4.0. The objective of the network is to develop the Thai workforce, align skills development and labour market needs, and promote training for advanced technology. The network is composed of 28 organisations (both private and public). 	<ul style="list-style-type: none"> Collaborations between DSD and OVEC appear limited.
	Thailand Professional Qualification Institute (TPQI)	<ul style="list-style-type: none"> Create awareness about professional qualifications among the general public. Engages with businesses in developing professional standards. Certifies training organisations in line with international standards. Provides information sharing services on professional qualifications and standards. 		<ul style="list-style-type: none"> TPQI has established subcommittees for selected sectors. Subcommittee members include experts and representatives of the public, private and academic sectors. The key responsibilities of each committee are (1) to provide policies and guidelines for the development of human resources in the industry and occupations in specific sectors; (2) to develop occupational standards, professional standards, and educational standards; and (3) to promote curriculums, trainings, and trainings for trainers. 	<ul style="list-style-type: none"> TPQI is active but also benefits from donor support. For example, TPQI is supported by the Australian Department of Education through capacity building for the establishment of an Industrial Competency Board. The Board is expected to give companies the possibility to engage with TPQI in a more strategic way. The current members have been selected in collaboration with OVEC and DSD.

83 These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

Thailand					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
TVET institutions – public and private ⁸⁴	Institute of Vocational Education (IVEB)	<ul style="list-style-type: none"> IVEB's mandate is to provide high quality training and serve as an umbrella Institute for 13 OVEC-run colleges in Thailand. 		<ul style="list-style-type: none"> IVEB established collaboration with a network of 20 colleges in China that have connections with Chinese companies in Thailand. 	<ul style="list-style-type: none"> IVEB is one of the strongest “umbrella” institutes given its central location in Bangkok and strong leadership.
	Golden Jubilee Royal Goldsmith College	<ul style="list-style-type: none"> The college provides students with training in jewellery making. 		<ul style="list-style-type: none"> The college is collaborating with jewellery-making companies in providing dual training. As part of the programme, students are required to spend four days practicing in a company while one day is spent in the college learning theory. Currently the college has 1274 students of whom 800 participate in the dual vocational training programme. 	<ul style="list-style-type: none"> The college is an example of ongoing efforts to work with companies within the dual vocational training programme.
Business membership organisations	Employers' Confederation of Thailand (ECOT)	<ul style="list-style-type: none"> Advocates and facilitates cooperation between the government and business sectors as well as proactively supports tripartite labour relations. 		<ul style="list-style-type: none"> Represents Thai employers at national and international levels, particularly at the International Labour Conference and International Organisation of Employers. ESCOT provides customised skills training in safety and energy saving. 	
	Thai Chamber of Commerce (TCC)	<ul style="list-style-type: none"> Established in 1933 to facilitate business and trade as well as to serve as a central coordinating body between the government and the business sector. 		<ul style="list-style-type: none"> Member of the National Board of Vocational Training Coordination (NBVTC). Established the University of the Thai Chamber of Commerce (UTTC) which offers bachelor and masters programmes. 	
	Federation of Thai Industries (FTI)	<ul style="list-style-type: none"> Acts as a representative of the industry and coordinates in all matters related to policy and implementation concerning FTI members. The Human Capacity Building Institute under FTI provides technology transfer through training courses for its members. 		<ul style="list-style-type: none"> Member of the National Board of Vocational Training Coordination (NBVTC). Collaborated with DSD in developing the national skills standards and testing and certification systems in 7 categories and 3 levels of the following sectors⁸⁵ and will continue to work with DSD for new sectors. 	

84 The institutions listed under this category include mainly those interviewed as a part of the country visits conducted for this study.

85 Construction, industrial, automotive, electrical, electronics and computer, industrial art, agro-industry and hospitality

Viet Nam					
Type of stakeholder	Stakeholder name	Formal role and responsibilities		Role in business and industry collaboration in TVET	Comments/Observations
Key Public TVET Stakeholders ⁸⁶	Ministry of Labour, Invalids and Social Affairs (MOLISA)	<ul style="list-style-type: none"> MOLISA is the main governing authority for TVET in Viet Nam. DVET under the aegis of MOLISA is the main department responsible for oversight of TVET. 		<ul style="list-style-type: none"> DVET is responsible for implementation of the TVET Law (especially in line with articles 51 and 52 which regulate the rights and obligations of enterprises in TVET). 	<ul style="list-style-type: none"> The responsibility for TVET in Viet Nam is centralised within the Ministry. DVET is also actively engaged in promoting, monitoring and evaluating pilot projects in business and industry collaboration, including dual training.
	Directorate of Vocational Education and Training (DVET)	<ul style="list-style-type: none"> NIVET is the think tank of MOLISA and DVET. Conducts research in the field of vocational training, delivers postgraduate trainings and other customised trainings to foster the capacity of the teachers, management staff and workers. Carries out consulting and experimental services in VET sector. 		<ul style="list-style-type: none"> NIVET has an advisory role towards MOLISA and other stakeholders involved in business and industry collaboration. 	<ul style="list-style-type: none"> NIVET publishes an annual report on TVET in Viet Nam with a dedicated chapter on business and industry collaboration.
TVET Institutions - public and private ⁸⁷	Hanoi Vocational College of Technology (HACTECH)	<ul style="list-style-type: none"> Independent college under the Hanoi University of Science and Technology, offering TVET programs in 15 specialisations within five (engineering) departments. 		<ul style="list-style-type: none"> Mainly collaborates with business and industry for student internships. Implements a dual degree programme with the Duale Hochschule Baden Württemberg (Germany). 	<ul style="list-style-type: none"> The dual-degree programme serves to allow TVET graduates to earn a German <i>Fachhochschule</i> degree within one year and gain industry experience in Germany.
	Ho Chi Minh College of Technology II	<ul style="list-style-type: none"> Offers 17 courses in a variety of areas (business, health/medicine, engineering, hospitality, arts and design). 		<ul style="list-style-type: none"> Partner of GIZ for developing a Centre of Excellence (CoE) under the Programme TVET Reform in Vietnam. 	<ul style="list-style-type: none"> The College hosts the pilot project on wastewater and sewerage in collaboration with GIZ.
Business membership organisations	Vietnam Chamber of Commerce and Industry (VCCI)	<ul style="list-style-type: none"> VCCI is a national organisation which brings together and represents companies, employers and business associations from all economic sectors in Viet Nam. VCCI is an independent, non-governmental, non-profit organisation that is a legal entity and operates with financial autonomy. One of VCCI's main functions is to promote trade and business relations with enterprises abroad. 		<ul style="list-style-type: none"> VCCI is the main industry organisation supporting national and international stakeholders (government, industry associations, development partners) on TVET and business and industry collaboration and has taken the role of promoting partnerships, liaison with MOLISA/DVET, development partners, supporting TVET-institutions and industry to form partnerships etc. 	<ul style="list-style-type: none"> VCCI has a dedicated department for skills development and HRD and is considered by all respondents to be very committed and instrumental in the process of improving collaboration between industry and TVET as well as facilitating the dialogue between industry and MOLISA/DVET.

86 These can be termed ministry, department, TVET authority, agency, board or council and have a varying degree of responsibility for TVET.

87 The institutions listed under this category include mainly those interviewed as part of the country visits conducted for this study.

Appendix 3

List of people and organisations consulted

Cambodia

Pech Bolen, President, Young Entrepreneurs Association of Cambodia

Bun Sambath, Executive Director, Young Entrepreneurs Association of Cambodia

Yok Sothy, Director, National Technical Training Institute

Marge Mendenilla, Advisor, Asian Development Bank

Hak Lina, President, Cambodia Restaurant Association

Mean Vandet, Director, Professional Training Department

Him Sophany, Deputy Chief of Office, Tourism Professional Training Department, Ministry of Tourism

Kaing Monica, Deputy Secretary General, Garment Manufacturing Association in Cambodia (includes Garment Training Institute)

Muong Phasy, Vice-President Academic Affairs, National Polytechnic Institute of Cambodia

Seng Sokhieng, Vice-President Relation and Cooperation, National Polytechnic Institute of Cambodia

Nhep Mengcheang, National Policy Manager, Skills Development Programme, Cambodia, SwissContact

Laov Him, Director General of TVET, Ministry of Labour and TVET

Hay Hunleng, Deputy Director General, National Employment Agency

Ky Sereyvuth, Advisor, National Employment Agency, Ministry of Labour and TVET

Eng Sopheap, Secretary General, Cambodian Federation of Employers and Business Associations (CAMFEBA)

Thy Chanrith, PR and HR Executive, Cambodian Federation of Employers and Business Associations (CAMFEBA)

Sophorn Tun, National Coordinator for Cambodia, International Labour Organisation (ILO)

Moan Sam Oeurn, Director, Industrial Technical Institute

Fabian Mayr, Advisor to Ministry of Finance, Implementing the "Skills Development Fund"

Lao PDR

Khemphone Phaokhamkeo, Coordinator in Lao PDR, International Labour Organisation

Chithtakone Sisanonh, Deputy Director, Dongkhamxang Agriculture Technical College

Somsy Xayalath, DTC Coordinator, Dongkhamxang Agriculture Technical College

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Appendix 4

Interview questions

These guiding questions were adapted based on the country, institution and function of the interviewee.

- What is your general assessment of company involvement in TVET in your country?
- Is there a policy framework for business and industry collaboration in TVET (law, guidelines, etc.)?
- Is there an emphasis on collaboration with business and industry in the current TVET policy?
- What are the mechanisms in place at ministry/agency level to engage companies (working group, committee, etc.)?
- At what level is the collaboration taking place (national, sectoral, local/regional, individual/one institution)?
- What areas are companies involved in in the formal TVET system (curriculum development, occupational standard development, training delivery, etc.)

Focus on “good practices”:

- Please describe an initiative where your ministry/agency/organisation/company is successfully working with the ministry/business sector to improve the quality of vocational education in your country.
- Why do you consider this initiative successful?
- What are the shortcomings of the initiative?
- What do you think are the factors that contribute to a successful business and industry collaboration in TVET?



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