



# Technical Assistance Consultant's Report

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## Republic of the Union of Myanmar: Support for Post-Primary Education Development (Cofinanced by the Government of Australia)

Prepared by ADB consultants Carsten Huttemeier and Marcus Powell with inputs from GIZ consultant Andreas Dernbach, in collaboration with the Comprehensive Education Sector Review (CESR) Team TVET subteam.

For the Ministry of Education

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**Asian Development Bank**





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**Myanmar Comprehensive Education Sector Review (CESR)  
Phase 2: In-Depth Analysis**

**Technical Annex on the  
Technical and Vocational Education and  
Training (TVET) Subsector**

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**7 September 2015**

***(minor revisions to 4 February 2014 draft)***

## Foreword

This report was prepared as part of Phase 2 (In-Depth Analysis) of the Comprehensive Education Sector Review (CESR), which is led by the Union of Myanmar Ministry of Education (MOE), coordinating inputs from other government agencies and support from an array of development partners. Providing a cross-cutting analysis of the technical and vocational education and training (TVET) subsector, the report serves as a Technical Annex to the compilation “Volume 2” for CESR Phase 2. Building on a rapid assessment of the TVET subsector<sup>1</sup> in Myanmar under CESR Phase 1, this Technical Annex overviews more in-depth analysis conducted during Phase 2 of the situation of the TVET subsector in Myanmar and provides a number of recommendations for future reform over the immediate term (2 years) and also over the short to medium term (5 years).

Under the umbrella of the CESR, the analysis reported herein was principally funded by Asian Development Bank (ADB) technical assistance projects TA 8187-MYA: Support for Education Sector Planning and TA 8385-MYA: Support for Post-Primary Education Development, both of which are co-financed by the Government of Australia. This analysis and the Technical Annex complement additional TVET-related inputs to CESR Phase 2 provided by other development partners as part of a consortium supporting the CESR TVET Team, coordinated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and including (in alphabetical order) ADB, German International Development Corporation (GIZ), the International Labor Organization (ILO), and Swiss Agency for Development and Cooperation (SDC).

While the report was principally drafted by TA 8187 consultant Carsten Hüttemeier (focusing on TVET service delivery) and TA 8385 consultant Marcus Powell with support from GIZ consultant Andreas Dernbach (focusing on TVET policy and management), it reflects a collaborative effort involving inputs from the CESR Team—including in particular Daw Tin Tin Shu, Daw Ohnmar Thein, Daw Myat Thida Tun, and U Zay Yar Aung and the other CESR TVET team members—throughout the process, as well as collaboration and joint dialogue with counterparts from UNESCO, GIZ, ILO, and SDC.

ADB TA Coordinator Daw Khin Than Nwe Soe made significant contributions to the various aspects of the work reflected herein. The report also reflects inputs from ADB staff Chris Spohr and Wolfgang Kubitzki, and cross-fertilization with CESR Phase 2 analysis of the secondary and higher education subsectors supported by ADB and Australian Aid. Coordination support from UNESCO consultant Robyn Jackson was greatly appreciated. Finally, the work also benefited from coordination and other support provided by the CESR international advisers, Julian Watson and Eric Woods, as well as broader dialogue with other development partners supporting the CESR including JICA.

### Disclaimer:

The views expressed in this paper are those of the authors and do not necessarily reflect the views and policies of the Government of Myanmar or any of its agencies, the Asian Development Bank (ADB) or its Board of Governors or the governments they represent, or the Governments of Australia or Germany. ADB and its partners do not guarantee the accuracy of the data included in this publication and accept no responsibility for any consequence of their use.

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<sup>1</sup> This includes analysis reflected in the CESR Phase 1 Technical Annex for the TVET Subsector, supported by ADB and Australia (under TA 8187) in cooperation with GIZ and UNESCO, which is available online at: [www.cesrmm.org](http://www.cesrmm.org) and <http://www.adb.org/projects/documents/cesr-p1-rapid-assessment-annex-tvet-analysis-policy-legislation-management-service-delivery-tacr>.

## Acronyms

<b>ADB</b>	Asian Development Bank
<b>AEC</b>	ASEAN Economic Community
<b>AMS</b>	ASEAN member state
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>CBT</b>	Competency-based training
<b>CESR</b>	Comprehensive Education Sector Review
<b>GIZ</b>	German Technical Cooperation
<b>GTHS</b>	government technical high school
<b>HE</b>	higher education
<b>LMIS</b>	labor market information system
<b>MoI</b>	Ministry of Industry
<b>MoLES</b>	Ministry of Labor, Employment and Social Security
<b>MoST</b>	Ministry of Science and Technology
<b>MRA</b>	mutual recognition agreement
<b>NQF</b>	national qualifications framework
<b>NSSA</b>	National Skills Standard Authority
<b>PRC</b>	People's Republic of China
<b>RQF</b>	regional qualification framework
<b>TVET</b>	technical and vocational education and training

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## Executive Summary

This report presents analysis of the technical and vocational education and training (TVET) subsector conducted under Phase 2 of Myanmar's Comprehensive Education Sector Review (CESR), and serves as a Technical Annex to the compilation "Volume 2" for CESR Phase 2. It builds on (and can be read in combination with) the CESR Phase 1 Technical Annex on the TVET subsector through more in-depth analysis and provision of recommendations for consideration in the formulation of the costed National Education Sector Plan during CESR Phase 3.

### ***Section 2: labor market context***

- Myanmar is located in a strategic geographical location and—provided the correct investments are made in infrastructure as well as human capital (to provide a skilled future workforce)—the potential gains from regional trade could be enormous.
- Economists estimate that around 85% of Myanmar's growth over the next 10 years will come from the following sectors (in alphabetical order): agriculture, energy, export-oriented manufacturing, infrastructure, and tourism and hospitality.
- However, unless Myanmar invests in appropriate skills and support improvements in productivity, inadequate skills may stifle investment in and expansion of modern industries, and/or force Myanmar to rely on importing skilled foreign workers.

### ***Section 3: legislation, policy and information***

- There are two main pieces of legislation supporting TVET (defined herein to include what is sometimes termed "skills development" or "nonformal TVET" in Myanmar). The first is the Employment and Skills Development Act, which was passed in 2013.
- The second piece of legislation is the Agriculture Technical and Vocational Act. This legislation is outdated and new legislation needs to be introduced to cover TVET provision by institutions under up to 21 line ministries and some private providers.
- The evidence suggests that two parallel systems are developing: (i) a "nonformal" system coordinated by Ministry of Labour, Employment and Social Security (MoLES); and (ii) a "formal" TVET provision and coordinated by the Department of Technical and Vocational Education (DTVE), currently under the Ministry of Science and Technology (MOST).<sup>2</sup>
- Such fracturing threatens to block the development of a modern and effective TVET subsector in Myanmar. Currently, there is no consensus over what constitutes so-called "skills development" and what constitutes "formal TVET" (The Phase 1 Technical Annex on the TVET Subsector outlines the related debate). Often "skills development" is seen in Myanmar as a distinct form of training targeted current workers and the unemployed (i.e., what is termed workforce development in many countries), rather than seeing such training as an integral component of a comprehensive and cohesive TVET subsector. This divide has been re-enforced by the recent Employment and Skills Development Law. Similarly, some in Myanmar refer to TVET as school/center-based pre-employment TVET programs, such as those under MoST and the Ministry of Industry, sometimes including advanced degree programs that would be termed "higher education" in other countries. In many ways, this artificial divide between types of TVET arise from a past lack of joint policy dialogue and cooperation across agencies in the past, though some progress is now being made.

### ***Recommendations for legislation:***

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<sup>2</sup> At the time of drafting, it is understood that DTVE will transfer to under the Ministry of Education (MOE).

- Consider refinements to and complete guidelines and regulations for the Employment and Skills Development Law, while ensuring consistency with the forthcoming TVET Law.
- Continue formulation of the TVET Law to replace the Agriculture, Technical and Vocational Education Act and provide an overarching legislation for the TVET subsector. This will need to ensure synergies with the Employment and Skills Development Act, and take on board the whole issue of decentralization, as well as private providers.
- Where possible, closer synergies must be built between the two currently parallel systems. Further legislative reforms (including related to the Employment and Skills Development Law and future TVET Law) should support the introduction of a national regulatory system. Among other dimensions, this should specify the conditions for accreditation and adherence to national standards. Other measures to support closer synergies should include directives to allow formal TVET providers to access funds collected under the proposed skills development levy fund. This would help provide foundations for an integrated system.
- Building on initial progress made since 2012, it is hoped that the government emerging from the November 2015 elections will firmly commit to developing and implementing a longer-term vision for an integrated TVET system that is cohesive and multi-dimensional.

*Policy findings:*

- A draft policy for the TVET subsector has been developed by MoST. The development of this policy occurred while the work for the current report was taking place and has superseded some of the initial analysis.
- One of the shortcomings of the TVET policy is the failure to identify the management and governance arrangements for implementation.
- In the field of skills development no attempt has been made to develop a national skills strategy and MoLES are only starting this process.

*Recommendations for policy:*

- A number of specific issues will need to be addressed by the policies for TVET and skills development, covering: priority area for reform, the management and governance arrangements, implementation strategies, and how it will be funded.
- Any policy needs to support the move towards an integrated system. This can be facilitated by identify how providers operating under line Ministries can access the proposed skills Levy Fund. In addition, it will be important to develop appropriate accreditation and assessment processes.

*Information systems:*

- Currently most information systems are geared towards central planning and the majority of resources are targeted at people who work in the public sector or government owned enterprises
- On the positive side Ministry collect data every month on enrolment levels, drop-out rates and the type of programs being studied
- However, on the downside no attempt has been made to collate information in a centralized manner or tackle what happens after trainees graduate. The most significant draw back of the existing systems is the failure to capture data on private enterprises or providers.

*Recommendations for Information systems:*

- Develop the architecture for a Labor Market Information system (LMIS), an Education Management Information Systems (EMIS) and a Financial Management Information System (FMIS)
- Determine the location of the systems and identify the possible types of data that need to be collected. This may involve changes to existing data collection formats from the



official statistical body, particularly in the light of the need to understand the private sector

Data collection must include the implementation of a Labor Force Survey, and an enterprise based survey.

#### ***Section 4: Funding and management arrangements***

- Under the current system of resource allocation the Ministry of National Planning determines priorities for resource allocation. Subsequently, these priorities are translated into budgets for line Ministries
- However, in reality the budgets received by line Ministries are more likely to be determined by the amount allocated during the previous year.
- The current approach to funding is based on the man-power planning and does not reflect the needs of the labor market. There is also no understanding of unit costs and activity based budgeting and how they vary across different TVET programs
- When it comes to skills development in the workplace MoLES has provided more clarity for funding through the Employment and Skills Development Act. However, the precise details of the funding are yet to be decided. It is also worrying that the country's does not have a large enough industry base to justify the introduction of a levy grant on enterprises payroll.

#### ***Recommendations for funding TVET:***

- Under take a detailed study on the unit costs associated with the provision of different types of TVET
- Provide an indicative budget for the cost of expanding the TVET system
- Look at the most suitable mechanism for the collection of funds, including the role played by the private sector and enterprises. One possible solution could be the use of levy on the proposed oil or minerals being mined.
- Investigate how to move towards the setting-up of a national TVET council
- Analyze how the fund will be disbursed and recommend different approaches.

#### ***Recommendations for funding skills development:***

- Determine the precise levels at which the levy will be established
- Identify which enterprises will have to pay the levy and whether this will depend on turnover level or number of employees.
- Assess how the funds should flow through the system and the mechanism involved in each process
- Research what proportion of the funds can flow back to employers to employers and how. Also investigate how providers from other line Ministries could access the fund

#### ***Section 5: linkages with the labor market***

- While nascent progress has been made recently, the government does not yet have adequate capacity, experience or resources to forge links with the private sector.
- Nevertheless there are different types of informal links between the training sector and employers. These often involve managing agents. This type of engagement appears to principally occur in sectors most exposed to foreign investment or competition, particularly in the garment and tourism sectors.
- The lack of linkages between the public TVET subsector and private employers represents a significant challenges that needs to be carefully managed

#### ***Recommendations for improving linkages with the labor market:***

- Establishment of regional advisory boards for training.
- The involvement of industry in the development of skill standards (in some countries termed occupational standards).

- Piloting the introduction of apprenticeships.
- Piloting an internship program. The Ministry of Industry, as well as the Ministry of Science and Technology, would like to introduce an internship as part of their diploma programs.

#### ***Section 6: Access to TVET:***

- Limited access to TVET is a critical issue for Myanmar socio economic development
- Vocational education and training delivery needs to become more efficient, especially regarding the utilization of equipment and physical facilities
- The present matriculation exam system dramatically undermines access to TVET as well as higher education (as well as the quality and relevance of secondary education), and must be reformed.
- Present TVET curriculum does not provide efficient skills development and entrepreneurship elements and is more focused on subjects which promote the student's academic career.
- The present pathways through GTHS and GTIs are merely a "back door" for students pursuing HE.
- There is a lack of a transparent and unified accreditation and certification system across the TVET subsector which is contributing to students aversion towards TVET
- Government TVET providers lack funds for maintenance of equipment, teaching and learning materials as well as consumables for workshop training.
- Teachers and instructors do not meet technical or pedagogical competencies required for the development of a skilled workforce.

#### ***Recommendations for improving access to TVET:***

- Competency-based modular short courses need to be introduced and expanded to include other line ministries with MoST and MoI as the lead coordinating ministries in collaboration with MoLES
- Competency short courses shall target unemployed, disadvantaged members of the society as well as skills upgrading for employees. Special training activities targeting the rural population need to be developed.
- The efficiency of the government TVET providers need to be increased, extend opening hours and revise curricula with a view to raise efficiency on equipment utilization
- Curricula, based on skill standards, need to be developed locally and must address local labor market needs and include entrepreneurship training.
- An upper secondary sector specific TVET pathway managed by relevant line ministries for grade 9 leavers needs to be developed and implemented. Students following and completing an Upper secondary TVET stream shall be eligible for technical universities.
- A reformed TVET system must ensure access to the upper secondary TVET stream through bridging courses and recognition of prior learning.
- A quality assurance and accreditation system need to be developed and private TVET providers must carry out assessment and certification on behalf of line ministries
- A funding system based on unit costs and activities in terms of number of students' matriculated need to be developed, ensuring that training institutions at all times can provide appropriate teaching and learning materials, consumables for workshop training as well as maintain a maintenance scheme for equipment etc.
- A teacher/instructor training program need to be developed and to be made compulsory for teachers/instructors employed at an accredited TVET institutions.

#### ***Section 7: Quality and Relevance:***

- Strengthening the quality and relevance of TVET will be critically important to Myanmar's TVET system and to advancing broader socioeconomic objectives. Alongside strengthening

TVET subsector management, enhanced TVET quality and relevance should arguably be seen as a prerequisite to expanding TVET access.

- Enhanced quality and relevance will be critical to sustainably expand TVET access in Myanmar, since good quality TVET leads to good jobs upon completion, which feeds back into greater demand for TVET from both individuals and employers.
- However, international experience suggests that improving TVET quality and relevance is challenging. Fractured, ad hoc, and non-systematic efforts are not likely to succeed. Establishing a coherent and effective framework and operational systems for ensuring TVET quality is thus an urgent priority.
- The Employment and Skills Development Law provides some important building blocks, including supporting establishment of new skill standards. To help guide construction of a new, diverse, and demand-driven TVET system, dialogue among multiple ministries and development partners linked to the CESR supported formulation of the simplified conceptual framework for high-quality, demand-driven TVET.
- This framework centers on inter-linkages between 4 core strategic pillars, related to (i) skill standards, (ii) TVET program curriculum, (iii) testing and certification of individuals, and (iv) accreditation of institutions to deliver specific TVET programs.

*Recommendations for improving TVET quality and relevance:*

- Alongside dialogue on formulation of the TVET Law, National Education Sector Plan, and other key legislation, policy, and planning documents, it will be critical that MOST, MOLES, and other relevant agencies (with development partner support) continue dialogue to flesh out this 4-pillar conceptual framework and develop related structures and mechanisms.
- In this process, it will also be important to clearly identify responsibilities for various elements under these pillars, including those of existing agencies like the NSSA as well as the proposed TVET Council, to ensure a clear division of labor within a cohesive system (i.e., avoid fracturing into different systems for “formal TVET” and “nonformal TVET”).
- Building on that guiding framework, it will be important to make concerted effort to develop new mechanisms for quality management and self-assessment, formal accreditation of TVET providers, and to establish local advisory boards at these institutions.
- Other cross-cutting priorities include dramatically expanding investment in building the capacity of TVET staff (ranging from central and local agencies down, to TVET school managers and teachers), and strengthening engagement with industry and the private sector at various levels.

**Section 8: Moving forward**

*Moving forward for the TVET system:*

- More consultation needs to take place over draft/emerging TVET policy, particularly around the finer details of how it will be implemented
- A decision needs to be made on what are the most appropriate management and governance structures for TVET. As outlined earlier this should involve employers and take on board the whole area of decentralization
- Currently, there has been no decision about how the implementation of the TVET policy will be funded. There is a need to investigate possible other sources of funding to support the move towards a more sustainable system
- A start needs to be made on developing draft legislation for the TVET subsector
- Pilots on competency-based short course development and implementation should be initiated and expanded across the different sectors. MoST and MOI appear positioned to coordinate such efforts.
- Guidelines for training provider autonomy need to be developed thus allowing training institutions to establish advisory boards with representatives from the local labor market. This should also include guidelines for institutions to develop and implement

income generating activities: e.g., tailor made courses for local industry. Pilots to be implemented in selected GTHS and GHIs

- Guidelines for a TVET provider quality assurance system and a quality management system need to be developed and endorsed by a national TVET council.
- Guidelines for a national accreditation system based on the provider's ability to fulfill nationally recognized quality criteria need to be developed and endorsed by a national TVET Council.
- MoST, MoI, MoE and other line ministries need to negotiate and develop guidelines for provision of an upper secondary TVET. Sector specific upper secondary TVET pilots may be implemented by MoST and MoI.
- Guidelines for a unified free, fair and valid assessment with participation of third part assessors need to be developed and implemented in collaboration with local advisory boards.
- Legislation on TVET need to ensure that government training providers will have autonomy to establish local advisory boards, to develop and implement training activities according to local labor market needs and to engage in other income generating activities for the benefit of the institutions economy.
- Stock taking of equipment and its condition need to be carried out in order to develop an investment plan for future expansion of GTHSs and ITCs
- A skills gap analysis of teaching and instructional staff employed at GTHS and ITCs shall be carried out and form the basis for a compulsory vocational teacher training program. In this respect, a proposal for the establishment of vocational teacher training college, shall be submitted to relevant develop partners.

*Moving forward with skills development in the workplace:*

- The directives for the Employment and Skills Development Law need to be developed and discussed with stakeholders. Refinements to the Law may need to be considered to allow alignment with the forthcoming TVET Law.
- The regulatory framework must be established and directives provided
- It will be important for consultation to take place over the precise implementation details of the skills levy. There are a number of questions that need to be answered prior to implementation
- A national skills development strategy needs to be developed
- Through the formation of regional/local advisory boards local initiatives on skills development in the workplace can be piloted. Experience gathered shall contribute the national skills development strategy
- Skills development in the workplace need to be based on national recognized skill standards.
- Training institutions shall participate in skills development through training of supervisors as well as in the assessment of employees.
- Training institutions participating in skills development in the workplace shall develop and monitoring and evaluation system, thus ensuring that skills development is on-going. Experience gathered and results from local monitoring and evaluation schemes shall contribute to the development of a national skills development strategy.
- Public private partnership need to be formalized and shall form the basis for transparent collaboration between employers and TVET institutions in respect of skills development in the workplace.

## 1. Introduction

There are 8 interconnected parts to this Phase 2 analytical report. The next part (section 2) looks at the key issues facing the labor market and TVET, centering on the possible impact of regional integration and the demands for skills in the domestic economy.

Section 3 provides an in-depth analysis of the regulatory framework and information systems operating in Myanmar. One of the key issues facing reform in this area is the continued fragmentation of coordination and the report looks at two options or pathways for reform. The first option for reform centers on the move towards an integrated TVET system, supported by appropriate legislation, information systems and an overarching policy framework for skills development and TVET.

The second option for reform could involve the development of two parallel systems. The first of these systems would focus upon employment and skills development in the workplace and would be driven by the Employment and skills development Act. Under this system the coordination would occur through the National Skills Standard Authority (NSSA). The second parallel system would focus upon what is called the formal TVET systems, with emphasis being given to the coordination of TVET providers operating under the different line ministries. This second system would require a reform of the Agriculture Technical and Vocational Education Act. Despite the possible existence of two systems, there are still areas for collaboration and cooperation, especially around the commitment to national and regional defined standards, as well as the important areas of assessment and recognition of prior learning. There could also be an over-arching HRD strategy that encompasses work-force development and formal TVET provision. These reform options are outlined in more depth in section 3.

The next section of the report tackles the complex area of management and funding arrangements. This is a delicate area that will require a number of reforms to support the move towards a demand driven and sustainable system. Much of the current funding is driven by manpower planning and budget levels are determined by the previous year's expenditure patterns. The type of reform will depend on whether the government decides to follow a unified TVET and skills systems, or whether a decision is made to follow a parallel workplace and TVET systems.

If a unified TVET and skills development system is followed one of the major ways forward would be to establish a National Training Fund. The management and governance of that fund would need to involve social partners and representatives from line Ministries involved in TVET provision. The resources for the National Training Fund would flow from the proposed levy on payroll and also contributions from the line Ministries for formal TVET provision. The disbursement of funds would involve the setting-up of a number of funding windows, each with their own modalities and criteria. For instance there would be funding window for workforce development, one for TVET providers and another for youth. The areas would need to be decided upon by jointly by the government and stakeholders.

However, Myanmar might not decide to have a unified system and to move towards the formalization of the two parallel systems. Obviously, this would require two separate funding mechanisms. The first funding mechanism for the workplace would involve the levy grant system, as defined in the Employment and Skills Development act. The mechanism for the formal TVET providers could involve the setting-up of a centralized TVET fund.

Each of these funds would require their own management and governance structures, as well as their own funding windows and disbursements mechanisms. All of these issues are spelt out in the report, including how to move forward with the different options.

Section 5 of the report focuses upon the links between the TVET system and the labor market. A number of case studies are presented to illustrate the nature of current links. The available evidence shows that current government structures, at the Ministry and TVET provider level, face severe difficulties in forging links with private sector employers

or the labor market. Part of the problem stems from the lack of capacity within government Ministries or public TVET providers, and also due to the lack of a partnership culture. As a consequence of this situation the only type of engagement that occurs between employers and training providers occurs through non-governmental organizations, private sector associations or managing agents. This demonstrates that employers are open to engagement, but the public sector does not know how. Therefore, over the immediate term there is a need to identify structure and possible mechanisms to improve engagement. Given the lack of such partnerships the initial efforts should be given to the implementation of pilots to see what works. Amongst the possible options, include the following: the setting-up of regional training boards, the involvement of employers in the sub-committees to develop standards, the piloting of apprenticeship in priority sectors and the implementation of internship programs at the larger formal TVET providers. Once the pilots have been implemented, it will be important to review the lessons and move towards a more formal framework for supporting engagement between the public and private sectors for TVET.

Section 6 turns to how to increase access to skills development and TVET, focusing upon service delivery, the development of short competency-based programs, assessment and certification processes, as well as recommendations for introducing a TVET stream in higher secondary school. Meeting with local employers from industrial zones in both Yangon and Mandalay confirmed that employers do not have any contact with local training institutions, despite identified needs for skill development and improved access to TVET. Another critical issue identified by employers is the lengthy and rigid assessment and certification system. This is an area where recommendations for reform are necessary. Despite the introduction of competency-based short courses for disadvantaged youth and the unemployed, as well of skills upgrading of the existing workforce through the delivery of short courses, there are equally important need for reforms at the upper secondary school level. The upper secondary system in Scandinavian countries has used as example of best practice, particularly in relation to its role in reducing number of drop-outs and increasing interest for TVET. A recommendation for an upper secondary TVET stream may seem controversial and has to be done in collaboration with line ministries. In the proposal a strong collaboration with Government Technical High Schools (GTHS) under the Ministry of Science and Technology (MoST) Department of Technical and Vocational Education (DTVE) is recommended; this will require restructuring and upgrading of the existing 38 GTHSs.<sup>3</sup>

Section 7 will focus on the quality and relevance of TVET delivery, focusing upon the capacity development of teaching staff in the TVET institutions and the need for strong collaboration with Local labor market partners. For capacity development it is recommended that a TVET teacher education board is established and in relation to improving the relevance of TVET delivery, recommendations focus upon the establishment of local advisory boards. Local advisory boards will work closely with TVET institutions, helping to ensure closer collaboration / communication between labor market and training institutions. Furthermore it is anticipated that the establishment of local advisory boards will contribute to a higher employment rate amongst graduates, especially graduates from short courses. This can be reinforced through close collaboration between the training boards and local job exchange offices.

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<sup>3</sup> At the time of drafting, it is understood that DTVE will transfer to under the Ministry of Education (MOE).



## 2. Setting the Labor Market context for TVET reform

There are two labor market priorities that need to be taken into account, namely those associated with increased regional integration and those related to the demand for skills in the domestic economy. Two separate studies have been performed on these areas and the following represents a summary of the main issues.

### 2.1 Regional Labor Market Priorities<sup>4</sup>

The setting up of the Asian Economic Community will create a free trade zone and improved movement of labor in the region by 2015. This could have the following implications for Myanmar:

- One of the key possible advantages from improved regional trade stems from Myanmar's geographical position in Asia. Provided investments are made in infrastructure and more cost effective transportation links are established, the opportunities are enormous. However, the extent of the benefit will depend on the country having a skilled work-force in the area of construction and transportation related sectors.
- The increased regional demand will help expand the country's manufacturing base and boost employment levels, particularly if investment is made in the right type of manufacturing skills
- There will also be increased opportunities to export agricultural produce. However, this will require a workforce that is able to effectively use new technologies and farming practices.
- The movement towards increased integration will also impact on the service sector and will increase demand for quality services, particularly in the tourism and financial sectors. Myanmar has to invest resources in new skill areas to meet the demand for quality service standards.
- However, the establishment of an integrated regional market with an improved movement of labor could act as a double-edged sword. If Myanmar fails to raise skill levels among domestic workers, this may undermine the expansion of modern industries in Myanmar (as investment in modern sectors focuses on neighboring countries), and/or firms in Myanmar be forced to rely on importing skilled workers from abroad.

### 2.2 National Labor Market Priorities<sup>5</sup>

According to the recent McKinsey analysis of Myanmar seven sectors will quadruple the size of the economy from US\$45 billion in 2010 to over US\$200 billion by 2030. The same study also estimates that this will create more than 10 million non-agricultural jobs. The analysis estimates that 85% of the growth potential by 2030 comes from the following sectors (listed in alphabetical order):

1. **Agriculture** accounts for 36% of GDP, 52% of the country's employment, and 25-30% of exports by value. Capturing the full growth potential of agriculture is critical to ensuring that the country's economic growth is shared widely. The opportunity to expand farm output, both at the extensive margin (more land under cultivation) and the intensive margin (increased productivity) remains enormous. Myanmar

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<sup>4</sup> This regional section draws on analysis from CESR, ADB, and Australian Aid. 2014. *CESR Phase 2 Technical Annex on Analysis of the Impact of ASEAN Integration on Labor Markets and Skill Needs in Myanmar*. Yangon.

<sup>5</sup> Note: Much of the evidence for the national priorities were taken from an ILO report entitled "Industry Leadership of Human Resource Development in Myanmar" by David Lythe.

- could use the sector as a source of growth in the near term and further develop a vibrant export sector in farm products (Myanmar in Transition, ADB, 2012).
2. Investment in the **energy sector** will have an important multiplier effect on the economy (ADB). It is estimated that electrification covers around 74% of family units, leaving 26% not connected. There will be a need to ensure that standards are developed for the sector and an initial focus on the development of skill standards for priority occupations.
  3. The abundance of low-cost labor in Myanmar presents an opportunity to expand into labor-intensive and **export-oriented manufacturing**, including the Garment sector (Myanmar in Transition, ADB, August 2012). Currently the employment levels are estimated to be around 140,000 works and once new trade agreements are signed with Europe and the USA, inward investment would increase and the numbers employed could be expected to rise to as high as 300,000. Investments in skills in this garment sector will help promote employment and start the process of expanding a manufacturing base.
  4. In 2010, **infrastructure** contributed an estimated \$10.5 billion to GDP and provided employment for 500,000 people. Moreover, it is estimated that by 2030 the GDP contribution could be \$48.8 billion and employment 2.3 million. The majority of infrastructure investment will be in residential and commercial real estate. (McKinsey report) Currently, employers have indicated they will not have enough skilled workers available to train on the job their rapidly increasing workforce.
  5. The McKinsey study estimates that **tourism and hospitality** will employ 2.3 million people by 2030, contributing \$14.1 billion to GDP. The draft Tourism Master Plan from the Ministry of Hotels and Tourism estimates the numbers to reach 563,056 workers by 2010. The new Myanmar Skills Development Agency should establish a Sector Committee for Tourism/ Hospitality made up of practicing professionals and the Ministry, to: adopt the ASEAN competency standards and qualifications and to work with the Skills Development Agency to knit together the two Boards being established through the MRA, to jointly carry out accreditation, assessment and certification that will be recognized throughout ASEAN.



### 3. Legislation, Policy and Information

The development of legislation and an accompanying policy framework, as well as access to appropriate information are the foundations for developing an effective TVET system that can respond to the challenges identified in the previous section.

#### 3.1 Legislation

Phase 1 of the Comprehensive Education Sector Review (CESR) outlined the different types of legislation surrounding TVET and skills development and pointed to the lack of coordination and synergies between the non-formal and formal TVET systems<sup>6</sup>. The recommendations emerging from Phase 1 pointed to the need for more round-table meetings to allow development partners and line Ministries involved in TVET and to have an input into Employment and Skills Legislation, and to start tackling the gap relating to the funding of future TVET provision.

Considerable progress has occurred since the completion of the Phase 1 report. The Employment and Skills Act was passed on the 30<sup>th</sup> of August, 2013, and a number of further round-table meetings have taken place with the development partners, including a workshop at the NSSA<sup>7</sup>. The new Employment and skill development Act will provide a foundation for reforming the non-formal TVET system and for ensuring stronger links to the labor market. The Act has also help develop the regulatory foundation for a competency based system in the TVET subsector, outlining the registration process for providers, as well as the structures and systems associated with the development of skill standards, assessment and certification. These later issues are key for moving towards a unified system.

Other important issue contained in the Act, include the following:

- A levy will be established between .5% and 2% of payroll, but this will not be deducted from wages.
- The establishment of a fund management committee comprising of the government, the employer and the employee representatives to manage the fund.
- The fund will be used to support the development of skills amongst those in employment and the unemployed.
- How the government will support the setting-up of employment services offices, including those in the private sector<sup>8</sup>
- Details surrounding the development of employment contracts between employers and employee in the private sector

The Ministry of Labor, Employment and Social Security has 90 days to develop the regulations for the Employment and Skills Development Act. Currently, GIZ are supporting this process through the drafting of regulations with government counterparts and it is anticipated the regulations will be completed by the end of December 2013.

The practical developments surrounding the implementation of Employment and Skills Development Act have focused upon setting-up of the institutional structures and

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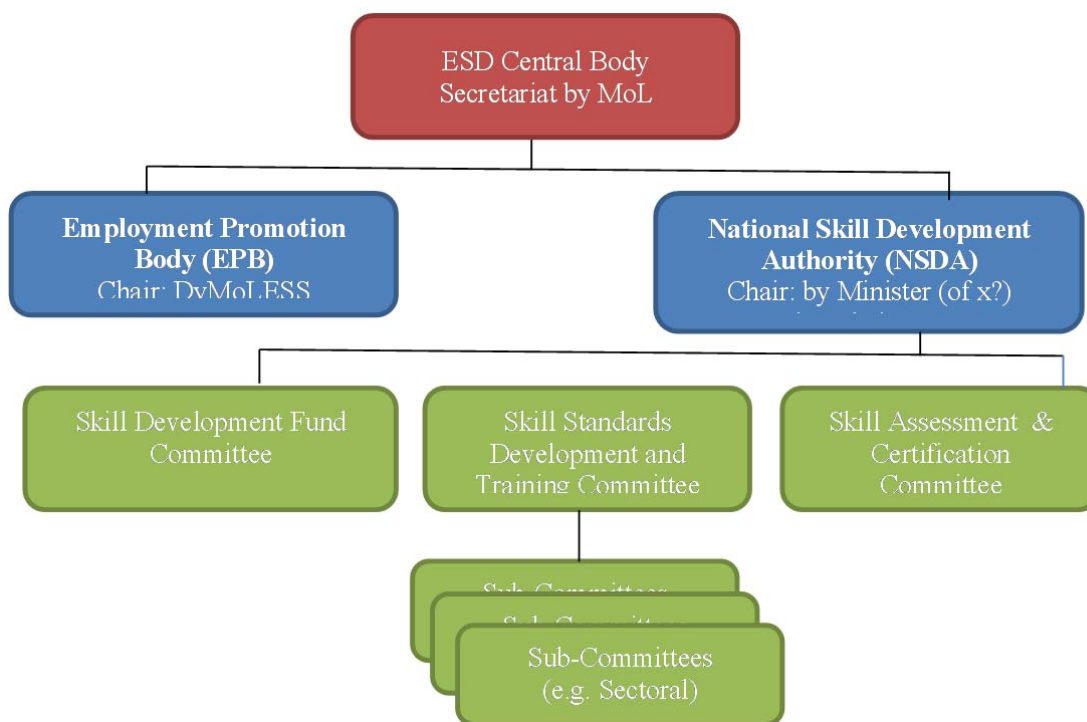
<sup>6</sup> There was also considerable definition around what is meant by the terms TVET. However, the available evidence shows there is a clear distinction between what the government calls labor (or non-formal skills development that occurs primarily in the workplace) and what they call formal TVET (this is the type of institutional based TVET delivered within the 17 different line Ministries).

<sup>7</sup> Note. This workshop was held on the 8<sup>th</sup> of November between members of the recently established technical working group for TVET, GIZ and the ADB on funding and the German apprenticeship system.

<sup>8</sup> Limited attention has been given to the areas of employment and funding.

regulations to support implementation for the NSSA. The proposed structures are shown in Figure 1.

**Figure 1: Institutional Structure for implementing the Employment and Skills Development legislation**



The government does not have a technical office to support the implementation of the Employment and Skills Development Act. The technical office can only be established once the regulations have been completed and confirmed. This process is being supported by the recently established technical group set-up by the government<sup>9</sup>. For instance, one of the technical groups has been established to support the establishment of the NSSA, the objective of which is to investigate organizational structure, job descriptions etc. In addition, it is envisaged that the technical working groups will collaborate with the sub-committees to develop actions plans for implementation and it is estimated that they will become fully operational by 2015.

Besides the regulations, the legislation will also require a number of directives to support: funding systems, the proposed apprenticeship and the employment exchange system. The Act spells out that apprenticeship will be supported, but the finer details are not provided. Both of these issues are discussed in later sections of the report.

The other most important piece of legislation impacting on the formal TVET system is the Agriculture, Technical and Vocational Education law which was amended in 1989. There is also the 1994 Science and Technology Development Law which aims to support technicians and specialists for industrial development. The current problems with this

<sup>9</sup> In late October, 2013, a total of 17 technical working groups were established by a higher level Minister in the government to help fast track recommendations in the field of education and training.

legislation were outlined in the Phase 1 assessment, and centered on the lack of coordination amongst the 14 Ministries involved in delivering TVET. The Phase 1 CESR assessment also pointed to the need to establish a central body to ensure synergies between the non-formal and formal TVET systems. Anecdotal evidence suggests that the Ministry of Science and Technology and from discussions with those working in the Ministry this will only take place next year. According to the Ministry the reform of the TVET legislation will only take place after the Education Act has been approved next year and also once the amendments to the current constitution has taken place.

## Legislative recommendations over the immediate term<sup>10</sup>

There are a number of equally important issues that need to be urgently tackled including the following:

- Consider refinements to, and complete guide-lines and regulations for the Employment and Skills Development Law;
- The implementation of the Employment and skill Development Law;
- Replacing the Agriculture, Technical and Vocational Education Act with a comprehensive new TVET Law, and ensure it is effectively operationalized; and
- Support the integration between the “formal” and “non-formal” TVET systems under the umbrella of the new TVET Law.

## Complete guide-lines and directives for the Employment and Skills Development Act

Alongside considering refinements to the Law (to ensure consistency with the forthcoming TVET Law), it will be important that the initial guide-lines surrounding the Employment and Skills Development Law are completed as soon as possible. Currently, GIZ are in the process of drafting these guide-lines and they will be discussed with one of the government technical working groups. It is anticipated that these guide-lines will be completed by December, 2013. This will confirm the structure of NSSA and help ensure that appropriate positions are identified and job descriptions are provided. A similar process will take place for the Skills Development and Standards Committees, the Skills Assessment and Certification Committee, as well as the proposed sub-committees. Emphasis should be given to the assessment processes and also to include recognition of current learning. This will be vital for supporting the move towards a unified system.

There are a number of directives that need to be developed following the confirmation of the Act, before moving onto the difficult task of implementation. Obviously, the directives and their content will need to be determined by the government and their partners. However, it can be expected that a number of directives will be required for the qualification framework (that is aligned with the ASEAN Regional Qualification Framework (RQF), the setting-up of an apprenticeship program, funding and the whole area of employment.

At this stage it can be expected that the directives for the qualification framework would need to focus upon those aspects of the qualification linked to the Employment and Skills Development Act, particularly around the levels 1 to 4. Some work has already been done

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<sup>10</sup> Note discussions have taken place with the international coordination surrounding the recommendations and time periods. The CESR recommendations will cover what can be done in the immediate term, namely over the next two years. Then, the other recommendations will focus upon what reforms can take place over the medium term, namely the following 5 years

on this issue and it would be best to focus on part of the process for developing a qualification framework, as opposed to developing a national framework, covering all aspects of the education system. However, it would also be important to ensure that synergies occur with other developments in this field and to ensure that cooperation is achieved between the different Ministries involved in TVET. In order to support this cooperation it will be vital that the appropriate structures and processes are established for recognition of prior learning and assessment.

The directives on the apprenticeship have yet to be discussed amongst the development partners and line Ministries involved in TVET. This will be one of the key vehicles for supporting employer engagement, supporting around access and through linking provision with the levy. The directive must specify the target group for the apprenticeship, the length, the qualification level, the requirements from the employer and the apprentice, as well as issues surrounding the flow of funds from the proposed levy. These are complex issues and are outlined in the funding section.

### The implementation of the Employment and Skill Development Act

Following the establishment of structures, confirmation of their functions, and the development of directives, the next phase must turn to the complicated issue of implementation. The implementation of the Employment and Skill Development Act must begin with a confirmation of the type of skills or competencies to be developed. Possible areas of priority for skills development were identified in the labor market section of this report, reflecting government areas for development. However, it will be important to adopt an incremental approach and to pilot skills development in priority areas of high demand, such as in the construction or the garment sectors. This would involve the development of standards, learning materials and assessment tools for a particular sector, and the subsequent implementation within a pilot apprenticeship program. The finer details are discussed in the delivery section (see section 7).

Other aspects of implementing the Act would need to center on bringing together the different parts of the TVET system, as well as other parts of the education system. The key to ensure synergies between different parts of the system and preparing for the upcoming Asian Economic Community will be the importance of establishing a Myanmar Qualification framework, as well as appropriate assessment processes and mechanisms for recognition of current learning.

One a final implementation issue there is a need to note that much of the implementation will be guided by the policy framework and links to the funding system.

### Replacing the Agriculture, Technical and Vocational Education Act with a Comprehensive New TVET Law, and Ensuring it is Effectively Operationalized

As noted above, Myanmar lacks an updated and comprehensive law governing the entire TVET subsector (as noted, the Employment and Skills Development Law mainly refers to TVET in the workplace). Currently, the government has established a task force to investigate how to reform the Agriculture, Technical and Vocational Act and develop a new TVET Law. However, no information has been provided on the direction of that the recommendations are likely to take. Discussions with officials at the MoST said that given the nature of changes in Myanmar there would be the need for a new piece of legislation and not further amendments of the existing one. At this stage of developments we can only suggest what should be contained within the Act and provide broad areas that could

be investigated: Amongst the issues that should be tackled in the new TVET Law are the following<sup>11</sup>:

- Ensure synergies with the Employment and Skills Development Law (including refinements, if needed), especially around the commitment to nationally defined standards and the Myanmar Qualification Framework.
- Take on board relevant issues defined in other legislation, such as the regulations surrounding private providers that is defined in the new Education Law;
- Ensure the TVET Law takes on board broader changes, particularly the move towards a federal system and autonomy at the decentralized level.
- Assess whether a new structure (sometimes termed a potential “TVET Council”) should be established to coordinate the existing TVET provision that occurs across multiple ministries (replacing and expanding on the former role of the Council for Agriculture, Technical and Vocational Education).
- Identify the functions and mandates of the new structure, as well as the membership.
- Address the complex area of funding and whether a National Training Fund should be established for the formal TVET subsector.

Assuming a sound and over-arching TVET Law is formulated to address such issues, it will also be critical to ensure that the new Law is effectively operationalized and supports integration of TVET into a cohesive, multi-dimensional system moving forward.

### Support Integration Between “Formal” and “Non-formal” TVET under the new TVET Law

The need to establish a cohesive and integrated system is necessary to prevent a duplication of effort and to ensure that resources are targeted effectively at priorities areas for future development. The setting-up of two separate management and governance system, one under MoLES and the other under MoST/MOI reflects current political realities. Nevertheless, strengthened legislation must attempt to support synergies between the two systems (in the immediate-term) and provide the foundations for establishing a more integrated system. This can be achieved through development of appropriate directives for the Employment and Skills Development Law (perhaps with some revisions), alongside development of a sound and comprehensive TVET Law (now being discussed by the MoST and MOI).

The development of appropriate directives linked to the Employment and Skills Development Law (perhaps with revisions), TVET Law, and/or other legislation, could provide a means by which integration between the two systems could take place. The specific details would need to be determined by MoLES, government partners and other line Ministries. Nevertheless, synergies could be improved by developing directives which allow TVET providers to access the skills development levy. For instance, the directives could state that apprentices would have to spend 60% of their time in enterprises and 40% at a registered TVET provider to receive underpinning theoretical knowledge. Under such circumstances the TVET providers could be entitled for funds from the skills development levy fund for training apprentices.

However, the main way in which directives would support closer integration is through the conditions underpinning the regulation and quality assurance of the system, particularly around the criteria for the accreditation of providers and the development of

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<sup>11</sup> Note: These recommendations for reform were based on discussion with MoST officials that took place in November 2013, and a subsequent national workshop held in January, 2014.

skill standards (in some countries termed occupational standards) to guide development of TVET programs. The directives will have to spell out the conditions under which enterprises and TVET providers have to comply before they can be accredited to deliver programs. This means that TVET schools, enterprises, and other **TVET providers** should (at least eventually) be accredited to provide specific programs based on achievement of certain standards, such as those relating to qualifications of trainers, equipment and learning materials. Similarly, skill certification of **individuals** (including after completion of training and as recognition of prior learning for existing workers) should be based on approved skill standards and testing by accredited agents. The development of such directives would ensure commitment to common procedures and standards in the delivery of skills and TVET programs, regardless of whether this occurs under enterprises or providers.

The movement towards an integrated system would also need to be supported by the proposed reform of the Agriculture, Technical and Vocational Education Act, potentially by replacing this with the proposed TVET Law. Legal reforms must recognize the criteria surrounding the accreditation processes and the development of skill standards, and be consistent and linked with an existing or revised Employment and Skills Development Law. This will be vital for ensuring adherence to common standards across the different Ministries and also the move towards the foundation for an integrated system.

### Legislative recommendations for the short to medium term

The recommendations for the short to medium term will very much depend on what is achieved over the immediate term and the commitment towards an integrated system. Currently, the system is in a state of flux and once the upcoming election has been completed it will be possible to plan for longer term goals within the TVET system. One of the key issues for longer term planning will be the revision of the existing legislation and attempt to develop the TVET Law as a single piece of legislation that helps remove the artificial boundaries between “skills development” and “formal TVET”. Building on initial progress made since 2012, it is hoped that the government emerging from the November 2015 elections will firmly commit to developing and implementing a longer-term vision for an integrated TVET system that is cohesive and multi-dimensional. This will require strategic alignment and close cooperation across various ministries, private sector TVET providers (including employer-provided training), and industry to ensure alignment with skill demand.

## 3.2 Policy frameworks for TVET and Skills Development

The development of a policy framework for TVET and skills development is the key to moving forward with the development of an integrated, employer-led and responsive system. Currently there are 17 Ministries involved in formal TVET, another ministry involved in workforce development and there limited synergies or commitment to a national system of skills development. However, the question that we must ask “*is it possible to develop an integrated skills development or TVET policy in the current situation in Myanmar?*”? There is no doubt that an integrated TVET system and a corresponding strategy to move in this direction is urgently required. However, the current political environment may make it difficult to achieve in the immediate term. According to officials at the Ministry of Labor, Employment and Social Security (MoLES) any strategy or future implementation policy should tackle the issue of skills development in the workforce and the area of employment creation (and not formal TVET provision). Whereas, officials at MoST and MI emphasize that a TVET policy should focus upon formal TVET providers.

Unfortunately, the distinction between the work-force development and the formal TVET providers has been reinforced by the recent Employment and Skills Development Act,



under which the proposed training levy will be targeted at the workers and the unemployed, as opposed to supporting provision at formal TVET institutions.

Therefore, the question that we need to answer is how can we move towards an integrated strategy and take into account the political realities on the ground? There are two possible scenarios that need to be thought about (see Figure 2).

**Figure 2: Scenarios for moving forward with the development of a national TVET or skills policy**

### Scenario 1

A national TVET and skills development strategy is developed by different Ministries, employers and partners. Under this scenario the NSSA would become the coordination and management body for implementation. The policy would cover all providers and enterprises involved in TVET and skills development up to level 4. A single training fund would be established to support provision across the sector. There would be a unified information system, encompassing LMIS, EMIS and FMIS. Finally, national standards would be established and all registered providers would be required to follow. The Employment and Skills Development Act would provide the framework for regulation of quality.

### Scenario 2

Under scenario 2 a Skills and Employment Strategy is developed by MoLES, encompassing workplace training and interventions for employment promotion. MoLES would have a levy grant fund to support implementation. A comprehensive LMIS would be developed to understand the labor market and inform decision making processes.

A separate TVET strategy would also be developed for formal TVET providers and responsibility for implementation would rest with a National TVET council located within the Ministry of Education. In order to fund provision a national TVET fund would need to be established. Emphasis would be given to formal providers and a centralized EMIS to support decision making processes would be established.

A political decision would have to be made about which scenario will be followed by Myanmar. Currently, the scenario's outlined above are intended to provide a broad framework of approaches for discussion in Myanmar. There is no doubt that an integrated approach would be the most suitable way forward for an integration TVET and skills system, but this might not be politically acceptable in the immediate term.

Whatever option is chosen the TVET and skills strategy will have to tackle the following:

- Develop a macro level framework to identify priority skill areas to support and targets to be obtained annually and over the next five years
- In conjunction with stakeholders determine the major pillars or areas for reform. Normally, these focus upon qualification framework, youth employment, skills for productivity, engagement within industry etc. Consultation would be required to identify these areas. This is not something that can be identified by consultants or those working outside of the system.
- Identify the most suitable management and governance arrangements, particularly around how to involve employers and other stakeholders.
- Confirm the funding arrangements and how they will be collected, managed and disbursed.
- Take on board the need for a regional dimension and what this means for provision.
- Ensure that the agreement is reached on the implementation structures.
- Ensure that appropriate quality assurance processes are in place.
- Establish a comprehensive M&E system to track progress.

## **Recommendations for policy reform over the intermediate term**

Over the immediate term consultation must take place over which scenarios or options should be followed. While most donors, stakeholders and government would agree on the need for a single integrated strategic framework for TVET, the political realities may make this difficult to achieve over the short-term.

During the current assignment it became clearer that the country was moving towards a dual system. This was apparent by the fact that MoST had developed a draft TVET policy, covering formal TVET providers that operated under the 21 line Ministries. In addition, MoLES was in the process of developing a separate skills and employment strategy to support the implementation of their Employment and Skills Development Act.

Despite the importance of ensuring synergies between the two systems, the evidence would suggest that there is minimal cooperation between MoLES, the organization leading the skills and workforce development reforms, and MoST/MOI, covering what can be called the formal TVET subsector. This division became apparent when the national TVET workshop was held for presenting the findings from the current CESR Phase 2 assessment. The workshop for presenting the findings was held on a specific day in Naypyitaw and the relevant line Ministries were invited to this national workshop, including MoST/MOI and MoLES. However, this national workshop was only attended by MoST and MOI, and representatives from some of the other line Ministries (but not MoLES). However, MoLES had a parallel workshop the following day and this was not attended by the other line Ministries.

Therefore, it might be better to focus on how to establish an integrated system over the medium to longer term and what stages or process this might involve. For instance, over the immediate term it might be possible to develop a strategy that had sub-components relating to employment, skills development in the workforce and formal TVET providers. In some countries this overriding strategy is referred to as an HRD and Employment Strategy. This approach has been followed with relative degrees of success in Sri Lanka and Botswana. However, this must involve the structures reporting to a higher level structure or Ministry, such as the Ministry of Finance or the Cabinet. However, the key strategies for supporting integration must center on the assessment processes and recognition of current or prior learning.

Once further consultations and political decisions have been made about the approach, then it is possible to focus upon the composition of the strategy, as well as the actions for implementation.

## **Recommendations for policy reform over the medium to longer term**

Over the medium to longer term emphasis must be given to moving towards a unified strategic framework and support for implementation. This suggests that the initial strategic framework for TVET and skills development should last for two years and cover the immediate period. While over the medium to longer term a new strategic framework should be developed to reflect the changed political landscape. Once the election has been sorted out the government should have a longer term commitment to transforming the TVET and skills landscape, through the introduction of new legislation that support the rationalization of the two systems

### **3.3 Information systems to support strategic planning**

Access to timely and valid information is necessary to make more informed decision over how resources are allocated for TVET, the responsiveness of existing programs, as well as implementation progress and budgets for specific interventions. It important how this information is turned into intelligence, so that learners can make better decisions about



which programs of learning to follow, and providers also know which type of programs to develop.

Within a mature TVET system there should be a coordinated, integrated and comprehensive information system to track: the performance of the TVET system and the numbers graduating, the status of the labor market and areas of growing demand, as well as the cost effectiveness of existing provision. In addition, there would also be a comprehensive monitoring and reporting system to monitor progress.

So what is the current status of information systems in Myanmar? Currently, most of the information systems are geared towards a centralized planning and the majority of resources are targeted at people who work in the public sector or government owned enterprises. Each of the line Ministries conduct their own planning, under the direction of the National Ministry of planning. For example, in each Ministry there will be a specific unit or department who is responsible for the collection of data on the TVET providers that operate under their mandate. The Ministries will collect data every month on enrolment levels, the number of drop-outs, the type of programs being studied, as well as data on the instructors. However, there are no attempts to collate the information from different Ministries into a centralized location. Another limitation of the existing system is the failure to track what happens to graduates once they leave institutions, as well as a lack of data on information for private providers.

When it comes to understanding the labor market, the National Ministry of Planning collects data on the performance of the economy, and the number of people employed. Once again the limitation of this data is the failure to capture information on the growing private sector. Currently, the Ministry is attempting to investigate ways of capturing such information

For information about unit costs for TVET and national budgets levels there is limited information. Under the current system each of the providers will receive a budget for the year based on recommendations from the National Ministry of Planning. In turn managers at the individual provider will have to calculate the number of learners that can be trained within that budget (see funding section for more information).

### **Recommendations for reforming information systems over the immediate term**

The immediate recommendations must focus upon initial data gathering to improve our understanding of the changing TVET system and the performance of the labor market, and to develop architecture for an information system that supports the move towards a more market driven system.

Currently progress is being made with the collection, collation and analysis of data, including the following interventions:

- A small scale capacity survey of TVET providers operating under the MoST, MoLES and the Ministry of Industry (Mol).
- The establishment of a TVET directory that contains details of the different types of programs being delivered in Myanmar.
- The implementation of a Labor Force Survey (LFS).

Other interventions that are being considered and/or may be required in the near term focus upon the design of the architecture for a Labor Market Information System (LMIS), a stand-alone TVET management information system or integration of TVET data into MOE's Education and Management Information System (EMIS), and a Financial Management Information System (FMIS). Most of the architecture for these systems will cover the usual aspects, such as the data collection, collation and analysis process, as well as how the outputs will be disseminated and utilized. What will be more complex is where the systems should be located and who should be responsible for these processes.

There is also another important issue, namely how can this information be transformed into intelligence that can be used to inform policy.

Some of the decisions about location for the LMIS have already been made. According to the Employment Skills and Development Act, the LMIS should be the responsibility of MoLES. There will be a number of sources of data collection. The proposed employment exchanges will be responsible for collecting information on job vacancies from employers. It will also be important to collect more strategic data on the labor market and this should be done through the LFS. Responsibility for this survey might be better placed under the National Ministry of Planning Central Statistics Office (CSO), given CSO's new mandate and since MNPED have established capacity for data collection, collation, and analysis. In view of international experience with attempts to establish LMIS, it should be noted that an operational LMIS will take time to become operational, with no guarantee that it will become fully functional and continue to be periodically updated to remain useful. Additionally, LMIS systems tend to only provide little if any information on international trends affecting labor market needs (e.g., shifts in trade, global value chains, etc.). Therefore, a series of periodic analyses of regional, national and international labor market trends with periodic labor force surveys (LFS), census as well as Myanmar Business Surveys could be an alternative of establishing a LMIS and could feed into the longer-term establishment of a LMIS establishment. In this respect. It may be considered to establish a TVET research unit who will undertake responsibilities for series of periodic labor force surveys etc. under a forthcoming TVET authority/council.

In terms of an MIS to support management of TVET provision (including consolidation of updated information on TVET provision under multiple ministries and, if possible, also private sector providers), two options include (i) establishing a new dedicated MIS for TVET (i.e., "TVET MIS"); or (ii) incorporating TVET data into a new module to be added within the EMIS maintained by the Ministry of Education.<sup>12</sup> Under either scenario, responsibility for TVET data would probably better be located in MoST since they have experience of data collection for TVET and the mandate of cross-agency coordination. It will be critical that MOST (or MOE or another ministry) have clear responsibility and capacity to coordinate the collection of information from the other Ministries involved in TVET, and (to the extent possible) also private sector/industry TVET providers. Many of these issues surrounding the location and responsibility should be defined in the future TVET legislation.

CESR analysis was only able to find minimal data on the critical area on the financing of TVET, particularly around the area of unit costs. Responsibility for this area should rest with the Ministry responsible for determining TVET budgets. This is a complex area and over the mediate term the budgets for TVET providers will need to be centrally coordinated, as opposed to being the responsibility of individual lines Ministries. Nevertheless, over the short-term it will be more important to calculate the unit costs. It can be expected that there will be radical difference in cost between softer subjects as tourism and accounting, and those such as engineering which require more capital intensive equipment. It will also be important to obtain unit costs for scholarships since students from poorer background will require more financial support to access TVET programs.

## Recommendations over the medium to longer term

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<sup>12</sup> With support from UNESCO and other DPs, MOE is currently exploring options to strengthen EMIS.

Once political decisions have been made on the location of information system, the architecture designed and the business plan developed, the next phase will focus upon the practicalities of data collection, collation, and analysis of the data. However, for some of the information systems the processes will be quicker than others. For instance, most of the information systems for collecting data on public TVET providers are already in place. Whereas, for financial information there are no information systems in place and limited understanding of the units costs.

Once the systems have been established for the different information areas it will be necessary to look at how the different systems can be integrated, as well as support the move towards a performance based planning system to support planning, as well as monitoring and reporting. However, this will not be achieved until some-time into the future.

## 4. Funding and management arrangements

The funding and management of TVET and skills development in Myanmar must be sustainable over the medium term. In practical terms, provided equity and access issues are covered, those who benefit from skills development should contribute towards some of its cost. This will involve the setting-up of new mechanisms and structures for the collection and disbursement of funds. It is equally important how funds are managed and to ensure that appropriate governance arrangements are in place.

From discussions with officials at the key Ministries involved in TVET, namely MoST and MI, the process associated with the funding of TVET is relatively straight forward. Under the current national planning system, the Ministry of National Planning determines whether a changing priority in industrial production is likely occur over the short to medium term and the corresponding human resource requirements. Subsequently this human resource need is translated into budgets for the relevant government Ministries involved in TVET. However, in practice the allocation of resources to individual line Ministries are more likely to determine by the amount allocated in the previous year, as opposed to changing industrial needs.

Under the current system for determining TVET budgets there are also three separate, but interconnected processes. The first process is called the budget estimation, the second involves a revision to the budget estimation and the third process involves applications for a special grant. The annual budget estimation for TVET is based on the spending of individual line Ministries from the previous year. The budget estimation covers all costs associated with TVET, including: expenditure of salaries, infrastructure and machinery and so on. This will involve each of the line Ministries collecting budgets on their TVET expenditure in June and (if approved) they are submitted to Parliament for approval in October. Then Parliament, considers whether the budget from the individual line Ministries for TVET is appropriate or not. Then, if approved it becomes regular budget in April. There are also opportunities for line Ministries to submit for a revised budget twice a year if there is a special need. For the past the past three years there has been budget cuts for TVET in line Ministries, but this year most Ministries saw their budget for TVET increased by around 4%. .

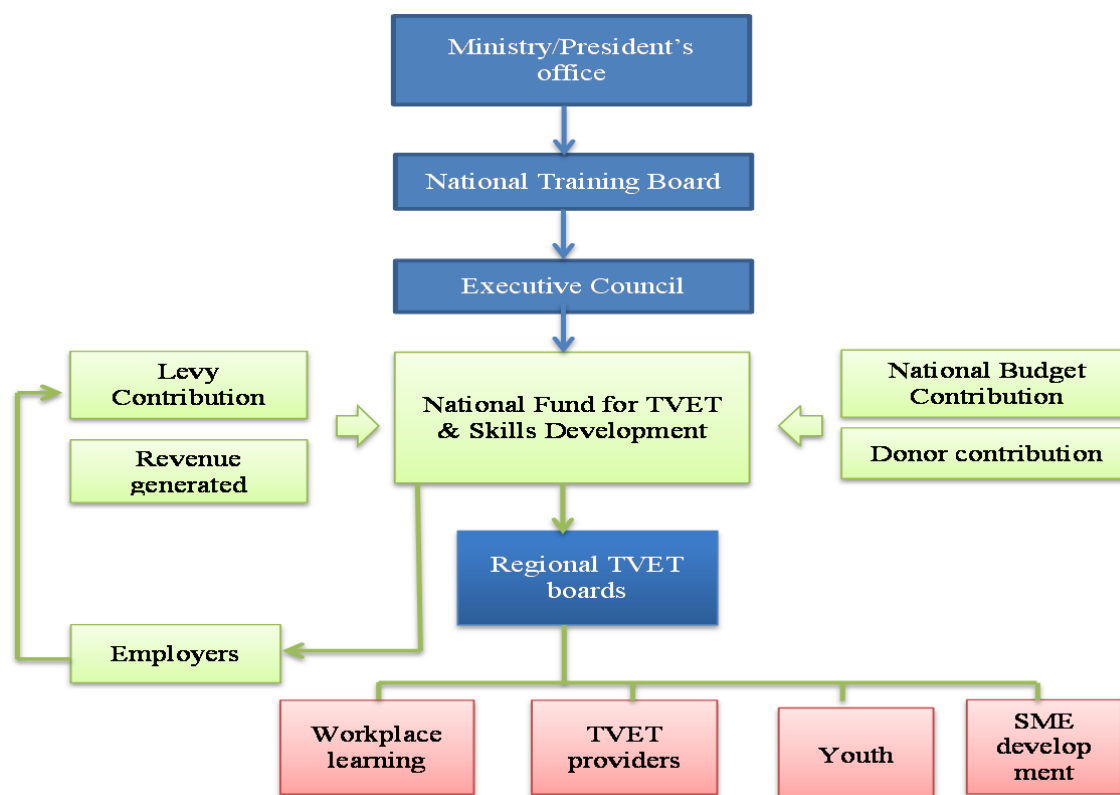
The current approach to funding is based on a manpower planning model and does not reflect the needs of the market (or end user!). There is also no understanding of unit costs for training and how unit costs compare across different types of learning programs. This situation needs to change and a different of significant reforms must take place, particularly around the following:

- The allocation of resources for TVET must be more aligned to the changing needs of the market and government priorities for new investment areas.
- The starting point will be to establish unit costs for TVET and ensure that this reflects the utilization of capital intensive machinery for more technical subjects.
- A national fund should be established for TVET that is managed and allocated by government, employers and external stakeholders.
- Over the medium term those who benefit from TVET should start contributing towards some of the costs
- Competition should be encouraged between public and private providers of TVET
- Nevertheless, scholarships should always be available for poor and disadvantaged learners, helping to ensure improved access

The issue to be tackled in Myanmar is how to move towards the situation above and what are the most appropriate strategies. Once again the answer to this question will depend on the policy framework chosen by the government and the corresponding implementation strategies. For instance, if the government decided to develop an integrated approach to TVET and to ensure synergies across the different providers, then a National Fund for TVET and skills development would need to be established. Figure 3 shows what a

National Training Fund could look like and the different flow of funds into the system, as well as the different disbursement mechanisms or funding windows. There are a number of assumptions underpinning such an approach and these are outlined in the next paragraph.

**Figure 3: Proposed Structure for the setting-up of a National Training Fund**



This integrated national training fund would have a number of different revenue flows, including the following:

- Funds from the levy grant
- National government budgets that are used to support TVET providers
- Donor support for TVET and skills development
- Any revenue that is earned from the TVET system for the charging of fees or other services

The management of the fund would be the responsibility of an executive secretariat who could report to a National Training Board or Council (or even the National Skills Development Authority). The composition of this structure would need to reflect the Ministries that benefit from TVET and also stakeholders, employers and representatives from civil society. The National Training Board (NTB) would need to report to a single Ministry or the president's office. The function of NTB would also need to be clarified and it could be expected to cover the utilization of the funds, the direction of policy, implementation progress and other relevant issues. Most of the former structures and functions will need to be confirmed by the government of Myanmar.

There is also another issue that needs to be taken into account during the allocation of funding for TVET, namely the reform of the constitution and the move towards a federal system. This means that TVET funding much reflect the federal dimension. Over the medium term this might result in the setting-up of a number of federal training boards (that have revenue raising and disbursement powers).

The process of disbursing funds will be complicated and must reflect the priority areas defined in the strategic framework for TVET and skills development. This could involve setting-up of a number of funding windows or modalities. For instance, given the proposed introduction of a levy grant and support for industry based training, there will be a need to have a window for workforce development. Other funding windows could cover: formal TVET providers in the public and private sector, SME development and the informal sector, and possibly a final window for youth employment. Currently, these funding windows are only suggestions and these should reflect political priorities defined by the government (in the national policy framework).

Each of these windows would have their own modality of operation and would have to be defined in manuals. For instance, in the case of workforce development the funds would flow from a levy on payroll and enterprises would be entitled to claim back funds if they undertook training at accredited providers. The process involved in claiming back the funds would need to be carefully documented for each of the different funding windows (this is discussed in more depth in the next section)

However, if the policy framework for TVET and skills development follows scenario 2 (as outlined in Figure 3) then the funding mechanisms could be very different. Under scenario 2 there would be two separate funding mechanisms, one for the workplace or skills development and the other for the formal TVET providers. The mechanism for the workplace skills development is shown in Figure 4 (further below) and most of the issues covering management and governance are spelt out in the Employment and Skills Development Act. This Act also said that the levy contribution from employers would be between 0.5 and 2.5 percent of payroll, and that the main beneficiaries would be the employees and the unemployed. However, limited guide-lines are given for how the levy fund would be collected, managed or dispersed. There is no doubt that a detailed study is required on the introduction of the levy to inform these issues. The following is an attempt to provide some guidance on the issues that such a study should address:

- There is a need to clarify the types of enterprises that should pay the levy and those that should not. For instance, in some countries only enterprises with 25 or more employees pay the levy, and in other countries the levy is limited to enterprises with a turnover of US\$100,000 or more dollars.
- Details are needed on how employers will benefit. It is vital that they receive a significant amount of the funds back if they undertake training. The mechanism for them benefiting is also not spelt out. For instance will enterprises only receive resources if they undertake training of existing employees or if they train the unemployed, or both?
- Clarity must be provided on how the funds will flow. For instance, will the funds be collected by the Ministry of Finance and flow back to the levy fund at MoLES, and then back to employers who train? Similarly will formal TVET providers be able to access the fund if they train the unemployed?
- Much more work needs to be undertaken to determine what type of training will receive funds from the levy. Will the levy only support training that leads to a recognized qualification or does training have to take place at an accredited provider?
- Another issue relates to the actual disbursement of funds. Should mechanism be introduced to encourage improved performance amongst enterprises? For instance, should a certain amount of funds be released if an enterprise undertakes training, another amount when the training starts and a final amount when the person attains a qualification?

Besides the funding mechanism for workforce development there would be another mechanism for formal TVET providers. Once again there would be many unresolved questions that would need to be addressed around how the funds were raised, managed and dispersed. A tentative outline of the proposed structures for the fund is shown in

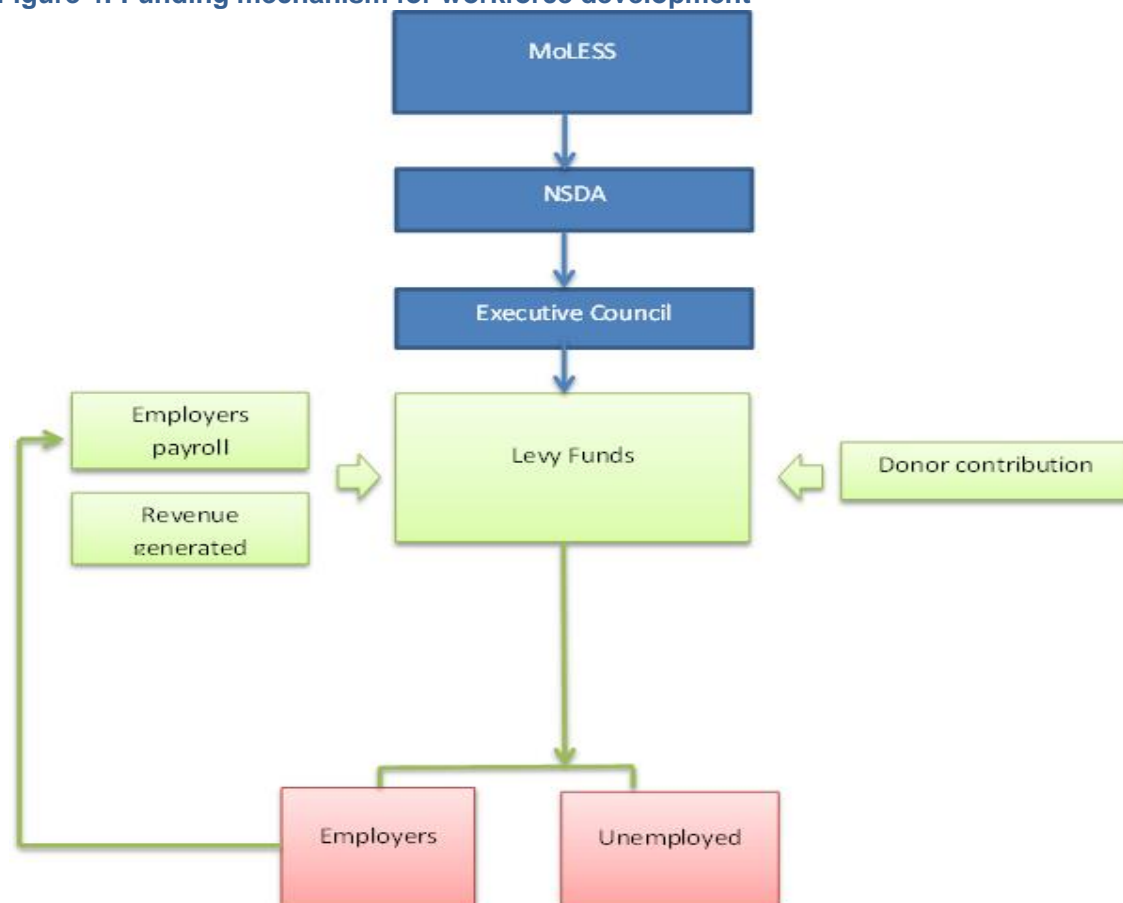
Figure 5 below. Under this proposed mechanism, the majority of funds would come from the National Ministry of Planning and instead of flowing into individual Ministries involved in TVET, the funds would be deposited into a single national TVET fund. The political question that needs answering is where should the fund be located and what would be the reporting lines? Experience from other countries suggests that the fund should be allocated outside of a ministry and managed by stakeholders, as well as employers. A national TVET board would need to be established and this should report to the president's office, ensuring that it has political commitment and influence across the 17 different Ministries involved in TVET.

As regards the disbursement of funds they should be used to support provision at accredited providers. It is important that training takes place at accredited providers in order to ensure form of quality is maintained. The complexity of the quality assurance process would depend on the capacity to quality assure providers and the ability of providers to submit plans, both of which would require improved capacity building.

The access to the fund National TVET funds could also be on a competitive basis, under which providers would have to submit annual plans to the executive council for evaluation. As occurs in most countries this evaluation would focus upon value for money, quality and the responsiveness of the plan to the local labor market.

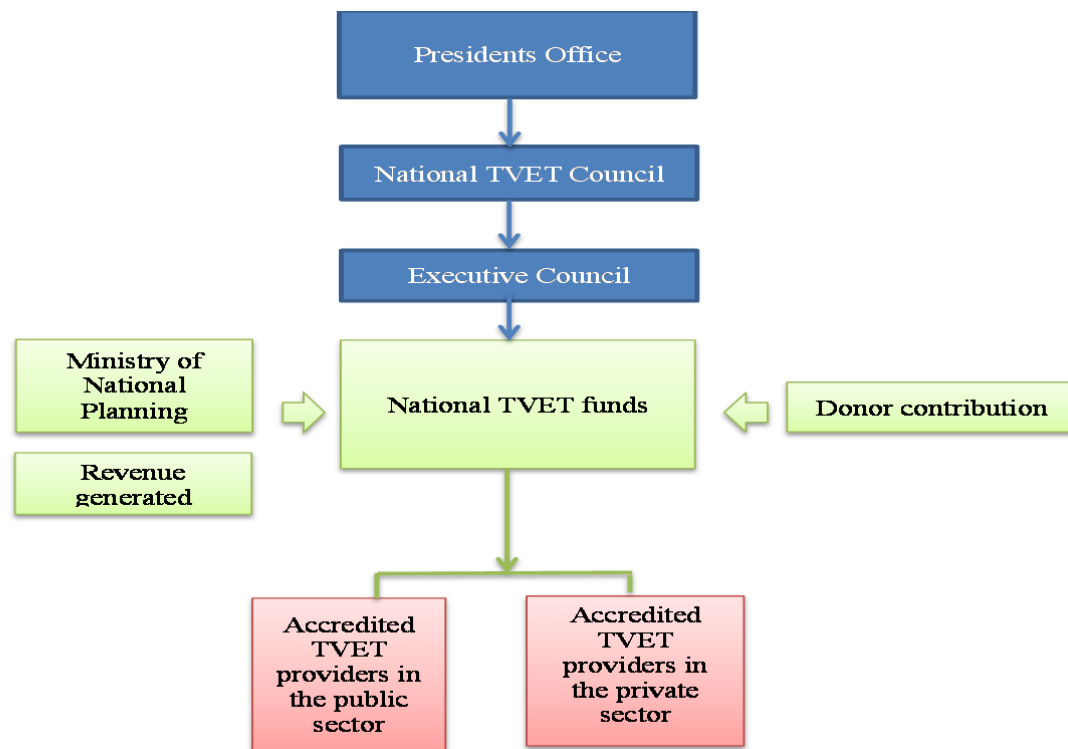
Another possible mechanism for the disbursement of National TVET funds would be to have a voucher system. This could be introduced on a pilot basis and involve students having the power to purchase TVET. In theory this would encourage competition between providers for learners. The students are more likely to choose programs of TVET that result in employment. Over the medium term the use of vouchers could also help facilitate improved quality and cost effectiveness of provision

**Figure 4: Funding mechanism for workforce development**





**Figure 5: Funding mechanism for accredited TVET providers in the public and private sector**



### **Recommendations for funding and management arrangements over the immediate term**

Once again the immediate recommendations must focus upon dialogue and consultation over which funding model is to be followed. Any reform to the current funding system is a sensitive area and there may be a tendency for organizations to resist change. One of the most effective ways to bring about change is through the reform of existing legislation or the introduction of new legislation. While it is simple to introduce new legislation, the process of effective implementation is more complex. The recent introduction of the Employment and skills development Act is a move forward in the right direction. However, it is questionable whether the Ministry, or more importantly stakeholders and employers, are ready to implement the funding reforms outlined in this Act. Therefore, one of the immediate activities is to prepare the way forward for effective implementation through consultations, in-depth studies and more consultation. Once again the specific consultations or activities to be undertaken will depend on which option is followed (see below for suggested activities). In the previous section on legislation we pointed to the need to develop directives to help TVET providers operating under the MoST and MOI to access the skills levy fund. Only through the introduction of such a directive is it possible to ensure synergies. However, the evidence would suggest that we are moving towards two system, one covering skills and workforce development and the other formal TVET providers.



**Table 4.1: Actions to prepare for funding reform of TVET and skills development**

**Immediate activities to prepare for reforms in the funding of skills development**

Inform stakeholders and employers around the country about the finer details of funding reform, as outlined in the Employment and Skills Development Act.

Undertake an in-depth study to:

- Determine the precise levels at which the levy will be established.
- Identify which enterprises will have to pay the levy and whether this will depend on turnover level or number of employees.
- Investigate the potential revenue that will be collected, as well as the costs associated with this process. This should provide an indication of whether it is the appropriate time to introduce a levy.
- Recommend options for management and governance structures that can involve employers in making decisions about how resources are allocated for skills development.
- Assess how the funds should flow through the system and the mechanism involved in each process.
- Research what proportion of the funds can flow back to employers to employers and how. The same should be done for the flow of funds to support the training of the unemployed.
- Look at the most appropriate system for monitoring and reporting of funds, helping to improve transparency.

One the above issues have been addressed further consultation can take place, before moving onto implementation.

**Immediate activities to prepare for reforms in the funding of formal TVET**

- Under take a detailed study on the unit costs associated with the provision of different types of TVET.
- Conduct another detailed study on the potential numbers coming out of the formal schools system and how many are likely to enter the TVET system.
- Determine where new TVET centers are likely to be located, taking into account industrial development and the move towards a federal system.
- Investigate the most appropriate model of TVET centers/institutions for Myanmar, taking into account existing structures and potentially new ones.
- Provide an indicative budget for the cost of expanding the TVET system, including estimations for capital and recurrent costs.
- Look at the most suitable mechanism for the collection of funds, including the role played by the private sector and enterprises.
- Another important revenue source would be a tax on minerals exports.
- Investigate how to move towards the setting-up of a national TVET council and what would be the most appropriate management and governance structures.
- Analyze how the fund will be disbursed and recommend different approaches. For instance is it possible for TVET providers to submit budget plans for each year to the TVET council and for these to be evaluated on cost effectiveness, quality and responsiveness. A model could be put forward for a student voucher system.

**Recommendations for funding and management arrangements over the medium to longer term**

Recommendations over the medium to longer will depend on many of the issues that take place in the immediate term. Nevertheless, the reform must occur slowly and all stakeholders and employers should be taken board with any recommendations. This can be achieved through the piloting of different initiatives to help iron out the implementation difficulties, before moving onto a full scale implementation across Myanmar.

## 5. Linkages with the labor market

Linkages with the labor market can encompass a wide variety of issues and involve a number of new mechanisms or partnerships. However, the formation of such partnerships tend to be concerned with supporting alignment between the TVET providers and industry (or employers), and also for helping young people to gain improved access to the labor market.

The strength of the linkages between the TVET system and industry can be determined by a number of factors, ranging from the country's level of development and the corresponding number of enterprises, to the type of incentives available for encouraging such partnership and the "culture of forging partnerships or working together". As could be expected countries that have a more advanced level of development and a larger industrialized base, are more likely to forge partnership between the TVET system and the private sector. Similarly, where grants or other financial incentives have been introduced then stronger links are likely to occur. Finally, where a country has a long history of partnerships in the workplace, such as through trade unions or guilds, then engagement between TVET providers and employers are more likely to occur.

These partnerships could occur at different levels of the TVET system. At the national level employers could be involved in the development of strategic frameworks through bodies such as a National Training Council or Board. In most countries the involvement of employers through the setting-up of National Training Boards is the key to moving towards a demand driven TVET system. While at the strategic level employers or their representatives can support the development of implementation plans as well as specific skill standards. These would require specific institutional structures to support such engagement. In most countries this occurs through the setting-up of sector skill councils in priority sectors and provides an institutional mechanism for facilitating employer engagement. Finally, there could be strong links at the operational level and involve employers in the actual delivery of training. Structures are normally established for encouraging employers in the delivery of training, most common of which are internship or apprenticeship programs.

While when it comes to the facilitation of TVET graduates or other people into employment, the emphasis should be on providing information on what job opportunities are available. In most countries this occurs through public employment services and also private sector employment agencies. Other mechanisms for facilitating improved access to the labor market, include career advice and the provision of employability or soft skills.

What does the evidence reveal from the situation in Myanmar regarding the nature of links between the TVET system and the labor market? A number of case studies (see following boxes) reveal the following evidence:

- The government does not have the capacity, experience or resources to forge links with the private sector.
- Nevertheless there are different links between the training sector and employers.
- The evidence shows that most of these links involve the managing agents, private sector-led employer bodies or non-governmental organizations.
- There are opportunities for engagement with employers and the evidence from the case studies show that in some instances employer welcome the opportunity for engagement
- Currently, the type of engagement occurs in those sector most likely exposed to foreign investment or competition, particularly the garment and tourism sectors
- From discussions and interviews with those working in the public TVET subsector and private employers there appears to be lack of trust. This in part stems from the past history and central government planning, and the lack of experience of working together.

- The lack of linkages between the public TVET subsector and private employers represents a significant challenges that needs to be carefully managed
- The only area where linkages exist between the public and private sector occurs in the field of employment services, but this linkages is more about regulation than partnerships (see case study 5)

#### **Case Study 1: Private sector-led approach to skills development in the garment sector**

The garment sector in Myanmar offers significant opportunities for employment, particularly once preferential access is obtained to markets in the USA and the Europe. The majority of training for those working in this sector is provided by the Myanmar Garment Human Resource Development Centre (MGHRDC) in Yangon. The MGHRDC offers training for the garment industry in all occupations, ranging from machine operatives to senior management training, and quality control. Much of the training for the operatives and supervisors is short-term, lasting for around two months. All training is provided free of charge to enterprises operating in the garment sector. The MGHRDC operates under the Garment Manufacturing Association of Myanmar and was established by the Japan External Trade Organization, part of JICA. The training center is fully equipped with 100 new operating machines, fully qualified instructors with industry based experience and learning material. They also provide study tours that normally lasts a couple of weeks and focus on specific areas of management, such as quality control, and tours of the marketing and management divisions of Japanese firms involved in the garment industry.

However, on the downside the training is not linked to any recognized standards and successful trainees only receive a certificate that is certified by MGHRDC. The capacity of the MGHRDC to meet the growing training needs of future investors in the sector is also questionable, particularly in the light of the anticipated growth in employment levels by 150,000 over the next three to four years. There is also a government garment skills training center, but employers are reluctant to use it because the number of places is very small and the training coincides with busy production times. The garment sector is an area that could benefit from support for expansion

#### **Case Study 2: Private sector and government led partnership for skills development**

Another example of links between the public and private sectors involves the Myanmar Engineering Society, whom acts as a managing agent between the private sector and young people wish to receive training and employment. The mandate of the MES is to support members and provide the economy with professional engineers. There are 39,000 professional engineers registered with the MES and they also have around 1000 cooperate members. Currently, MES has a contract with a Japanese company (JEF) to train 20 welders a year for their operations in Japan. Under this arrangement MES recruits local school leavers and sends them to receive on-the-job training at one of JEF's enterprises in Japan. Following this training, successful trainees are awarded a certificate of competencies (if they are successful). This partnership has been on-going for 6 years and over 120 people welders have been successfully trained and placed in employment. Now the company JEF has supported one of the MES cooperate members to establish their own training center in Myanmar to help reduce the cost of sending people overseas. This involved the provision of equipment and learning material, as well training for the instructors. Once the young people have been trained in Myanmar they will be employed in Japan by JEF.

There is a large demand by enterprises for skilled manpower in Myanmar and the problem facing government Ministries is that they are unable to respond due to their bureaucratic process. For instance, there is a large demand for crafts persons in the construction industry and the Ministry of Construction has a training center that is not in operation. However, the Ministry does not have the knowledge, capacity or funds to upgrade the training center. The head of the MES said that they could act as a managing agent for such a venture if the funds were available.

### **Case Study 3: Swiss Hospitality School<sup>13</sup>**

The Centre for Vocational Training (CVT) was founded in 2002 by the Swiss citizen Max O. Wey, a former employee of the International Committee of the Red Cross. Today, CVT is owned by an Swiss Association called "Organization for Professional Training in Myanmar" which is registered as an international non-profit organization in Myanmar. The school's aims to give young people an opportunity to achieve qualified professional training in accordance with the needs of the working market. CVT is the first vocational training school in Myanmar and emphasis is given to the dual training system (similar to the one in Germany or Switzerland).

Specialists from Switzerland are responsible for the quality and further development of professional training. CVT offers courses in five professional fields: Commercial Assistant, Cabinet Makers, Metal Worker, Electrician and Hotel & Gastronomy assistants.

CVT apprentices are full-time and spend one day per week at CVT, and the four receiving professional experience in a restaurants or hotel. Currently, CVT uses class-rooms in the Red Cross Building in downtown Yangon and a spacious workshop leased from the Myanmar Timber Merchant Association for practical exercises, e.g. in welding, machining, electrical installations etc.. Apprentices, who successfully complete their three year course, will receive the Certificate of Professional Capacity issued by CVT. For all of the professions, NSSA recognition is in process.

At this time, CVT has enrolled approximately 450 apprentices. This number is expected to increase to about 1,000 once the new campus, which will host class-rooms for theory training and workshops for practical skills development, will be constructed.

This model would not be possible to expand widely since it is dependent on overseas funding.

### **Case Study 4: Employers association in Myanmar and support for soft skills<sup>14</sup>**

UMFCCI's HRDC was established in the year 2000 and later in 2009, they established the UMFCCI Training Centre. This Centre focused on soft skills development, including management, marketing, human resources management and leadership skills. The training center is not for profit and less expensive compared with private training providers. The training center also provides language training in English and Japanese.

A number of foreign partners have entered into an agreement for the provision of training programs, including JICA, HIDA, the Japanese Overseas Human Resources and Industry Development Association and the Thai Chamber of Commerce. Training is also offered to multi-national companies like Toyota from Japan. The UMFCCI training center also collaborates with the Intellectual Property Rights Organization which operates under the organization of the UN in Geneva.

The UMFCCI training center does not provide training for technicians or craftsmen since this is regarded to be the domain of the over 60 affiliated sector associations. However, only few of these sector associations run technical training centers, among them the training center of the Myanmar Timber Merchant Association.

### **Case Study 5: Employment Services provision in Myanmar<sup>15</sup>**

Currently, job seekers in Myanmar mainly use two sources of labor market information to gain employment, namely clarified advertisements and through employment agencies. It is estimated that half of the job seekers find employment through classified advertisements in print or online

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<sup>13</sup> The authors appreciate GIZ consultant Andreas Dernbach' inputs to development of case studies 3-5.

<sup>14</sup> See footnote 13.

<sup>15</sup> See footnote 13.

media and the others through employment agencies. Neither education institutions at secondary or tertiary level nor government agencies provide labor market information or career counseling to graduates or drop-outs.

The unemployed are obliged to register at the Ministry of Labor, Employment and Social Security (MoLES) as job seekers for statistical purposes. Upon registration they receive a document stating that they are looking for employment. If the job seeker successfully finds employment, then they must inform the relevant department at MoLES.

Job seekers can also approach local employment agencies and they are normally required to produce their CV. Job seekers have to pay a lump-sum fee of around KYT 3,000. In return, the employment agency is obliged to search for an employer. On average, 40% to 50% of those who register with an employment agency actually find employment.

There are approximately 35 local employment agencies and an estimated number of 130 labor export agencies, most of them registered in Yangon, often with branch offices in Nay Pyi Taw. Local employment agencies are not organized in a professional association which is one reason for the absence of recognized quality standards. The labor export agencies, however, are organized in an association called “thuka su san”.

Research has also revealed that for some time MoLES has planned to launch a mobile labor market service to reach out to job seekers in rural and especially in disadvantaged regions of Myanmar, but these plans have not yet materialized. At the same time universities have started to contact employment agencies and ask them to put vacancy notes on their notice boards for the benefit of their students.

## **Recommendations for improving links to labor market over the immediate term**

Over the immediate term emphasis must be given to preparing the ground for a move towards the development of formal structures and mechanisms for linking the public TVET system with the labor market. These links must occur at all levels of the TVET system, covering national and regional public structures, as well as public providers that are involved in the delivery of skills. This process must be carefully managed given the low capacity of the public sector to forge partnerships and the suspicion of the private sector towards the public sector. The most suitable way forward would be to start by implementing pilots at a number of levels within the TVET system, including the following:

- The setting-up of regional advisory boards for training. This would involve bringing together employers in a particular geographical location, as well as providers, to help them jointly determine the local skills need and how it could be met. Such an approach could also be piloted at a sector level, provided that there are enough large employers in the same sector, willing to support skills development
- The involvement of industry in the development of skill standards. This development is already taking place through the industry sub-committees and is being pursued by a variety with support from various development partners (e.g., GIZ with inputs from ADB and SDC is supporting NSSA's “fast-track” pilot of new skills testing, while ADB is supporting MOST, MOI, and MOLES/NSSA to develop new skill standards in certain skill areas). It is vital that more employers are involved in this process, especially in sector where there is rising demand for skills.
- Another initiative for piloting would be the introduction of apprenticeships. This is important since the apprenticeship will provide a mechanism by which employers in the future can claim back their levy. A considerable investment should be provided to the pilot, ensuring that commitment is obtained by all partners to successful implementation.
- A final pilot would involve an internship program. The Ministry of Industry, as well as the Ministry of Science and Technology, would like to introduce an internship as part of their diploma programs. The key to the success of this pilot would be to involve employers in the design of the internship. Resource should be available to support the living costs of students and also to provide an incentive for employers.

Besides the pilot it will be important to ensure employer engagement occurs when any new management or governance structures are introduced. A number of new structures were recommended for the funding and management of the TVET system, and it will be important that employers play a key role in these new structures. In a number of TVET providers support should also be provided for involving employers in the management and governance structures. This pilot would involve a considerable change to the way in which providers are managed.

### **Recommendations for improving links to labor market over the short to medium term**

Over the short to medium term it will be necessary to review the pilots, with a view to identifying how to develop formal mechanisms or structures for employer engagement across Myanmar on a systematic basis. These formal structures should occur at all levels of the TVET system and would need to be carefully planned. For instance, at the strategic level there may be a decision to establish formal training boards in each of the country's provinces, with employers playing a key role in driving the planning and implementation processes. There would be a need to define the functions of structures and also to introduce legislation. Other systemic reforms could involve the development of a national apprenticeship system. This would require a sustainable funding mechanism. Other frameworks and strategies would need to be developed by the government and partners, based on the experience of the pilots.



## 6. Access to TVET and skills development

Myanmar has a population of 53 million (2004), with 73.4% living in remote and rural areas, and an annual population growth of approximately 1.8%. With over 100 ethnic groups, Myanmar is a country with enormous indigenous ethnic diversity. One of the challenges facing the education sector is how such a large and diverse population can be motivated to take increased responsibility for effective lifelong learning, with particular reference to developing sustainable economic livelihoods.

Traditionally, the Myanmar economy relies on a primary sector: agriculture, livestock, fishing and forestry. Almost 60% of the total labor force is engaged in the primary sector, which contributes 59.9% to gross domestic product (GDP). Rural participation in the rural labor force was 77.61% in 1990. Myanmar's industrial workers account for just 8.76% of the total labor force, and the service services remain weak.<sup>16</sup> This structure has remained largely unchanged over the past two decades. In accordance with a series of reforms carried out since 1988, Myanmar has increasingly turned its attention to raising productivity, and modernizing and upgrading skills, especially in the primary sector. This is important not only because the country needs to improve its levels of productivity by best utilizing its available resources, but also because the problems of limited access to knowledge and skills are making it more difficult to respond appropriately to changes introduced by the information age.

### 6.1 TVET service delivery

The limited access to TVET and skills development in Myanmar constitutes a serious problem for the socio economic development of the country. ADB estimates generated from the Integrated Household Living Conditions Survey (IHLCS) dataset<sup>17</sup> --also conducted as part of the CESR--suggests that only roughly 1.7% of 16 to 19 year old youth is currently participating in any form of training.<sup>18</sup> By comparison, in Denmark approximately 15% of the 2012 cohort from basic school 9<sup>th</sup> and 10<sup>th</sup> grade is enrolled in TVET training<sup>19</sup>. Moreover, as shown in Table 6.1.A below, the ADB estimates suggest that access to "training" (as defined in the IHLCS; see last footnote) is heavily concentrated in more affluent urban areas and in computers and languages. The shares of 16-19 year-old IHLCS respondents currently participating in training in industrial or mechanical fields is less than 0.4% (disproportionately urban males), with negligible shares participating in training related to agriculture or other primary sectors. The Table also shows very low access to training among other age groups or measured in terms of shares of youth and young adults who have **ever** completed the various types of training.

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<sup>16</sup> Myanmar Ministry of Home and Religious Affairs (1986).

<sup>17</sup> See also analysis in the CESR Phase 1 and Phase 2 Technical Annexes on the Secondary Education Subsector, also supported by ADB and Australia under TA 8187-MYA and TA 8385-MYA. That for Phase 1 is online at <http://www.adb.org/projects/documents/cesr-p1-rapid-assessment-annex-secondary-education-tacr>. That for Phase 2 is forthcoming, and will be posted at <http://www.adb.org/projects/47177-001/documents> and [www.cesrmm.org](http://www.cesrmm.org).

<sup>18</sup> The IHLCS survey includes questions on "other training" after questions related to school education and tertiary education, hence responses likely provide a loose definition of TVET (excluding bachelor's degree programs in engineering, etc.).

<sup>19</sup> Statistics of Denmark 2013

**Table 6.1 Access to Various Types of Training**

<b>Table 1.A. Shares of Youth and Young Adults Taking or Having Ever Taken Specific Types of Training</b>							
	<b>All</b>	<b>Male</b>	<b>Female</b>	<b>Urban Male</b>	<b>Urban Female</b>	<b>Rural Male</b>	<b>Rural Female</b>
<b>I.A Share of 16-19 year-olds CURRENTLY taking training</b>							
Language	0.64%	0.62%	0.66%	2.35%	2.43%	0.13%	0.14%
Computer	1.15%	0.72%	1.56%	2.61%	5.67%	0.18%	0.35%
Primary sectors (e.g., agric.)	0.02%	0.03%	0.01%	0.13%	0.04%	0	0
Industrial, etc.	0.35%	0.57%	0.14%	1.60%	0.21%	0.27%	0.12%
Craft-related	0.16%	0.14%	0.18%	0.43%	0.51%	0.06%	0.08%
Clerical & business	0.01%	0.02%	0.01%	0.09%	0.04%	0	0
Others (e.g., hospitality)	0.28%	0.24%	0.32%	0.59%	0.89%	0.14%	0.15%
<b>I.B Share of 16-19 year-olds who have EVER taken training</b>							
Language	0.45%	0.37%	0.52%	0.94%	1.57%	0.21%	0.21%
Computer	1.43%	1.66%	1.21%	5.86%	3.97%	0.47%	0.39%
Primary sectors (e.g., agric.)	0.11%	0.12%	0.11%	0.46%	0.24%	0.02%	0.07%
Industrial, etc.	0.27%	0.32%	0.23%	1.04%	0.96%	0.11%	0.01%
Craft-related	0.28%	0.22%	0.34%	0.76%	1.27%	0.07%	0.07%
Clerical & business	0.05%	0.05%	0.05%	0.15%	0.18%	0.02%	0.01%
Others (e.g., hospitality)	0.25%	0.22%	0.28%	0.62%	0.46%	0.10%	0.22%
<b>II.A Share of 20-25 year-olds CURRENTLY taking training</b>							
Language	0.58%	0.60%	0.56%	1.94%	0.88%	0.18%	0.46%
Computer	0.88%	0.70%	1.06%	2.10%	2.33%	0.27%	0.65%
Primary sectors (e.g., agric.)	0.02%	0.04%	0.01%	0	0.06%	0.05%	0
Industrial, etc.	0.19%	0.33%	0.05%	0.61%	0.21%	0.25%	0
Craft-related	0.12%	0.12%	0.12%	0.14%	0.12%	0.11%	0.12%
Clerical & business	0.04%	0.02%	0.06%	0	0.25%	0.03%	0
Others (e.g., hospitality)	0.20%	0.15%	0.25%	0.46%	0.61%	0.06%	0.14%
<b>II.B Share of 20-25 year-olds who have EVER taken training</b>							
Language	1.74%	1.50%	1.98%	5.29%	6.62%	0.34%	0.48%
Computer	2.82%	2.34%	3.29%	7.51%	9.53%	0.75%	1.28%
Primary sectors (e.g., agric.)	0.14%	0.08%	0.20%	0.20%	0.55%	0.05%	0.09%
Industrial, etc.	0.50%	0.78%	0.24%	1.98%	0.76%	0.41%	0.07%
Craft-related	0.43%	0.28%	0.57%	0.77%	1.22%	0.13%	0.36%
Clerical & business	0.22%	0.12%	0.32%	0.30%	0.71%	0.06%	0.20%
Others (e.g., hospitality)	0.76%	0.17%	1.32%	0.39%	1.85%	0.11%	1.15%
<b>III.A Share of 26-30 year-olds CURRENTLY taking training</b>							
Language	0.24%	0.20%	0.28%	0.40%	0.79%	0.13%	0.08%
Computer	0.36%	0.36%	0.35%	1.07%	0.90%	0.10%	0.14%
Primary sectors (e.g., agric.)	0	0	0	0	0	0	0
Industrial, etc.	0.05%	0.12%	0	0.20%	0	0.09%	0
Craft-related	0.09%	0.03%	0.13%	0	0.39%	0.05%	0.03%
Clerical & business	0.00%	0	0.00%	0	0.02%	0	0
Others (e.g., hospitality)	0.22%	0.02%	0.39%	0	0.67%	0.03%	0.29%
<b>III.B Share of 26-30 year-olds who have EVER taken training</b>							
Language	1.62%	1.11%	2.06%	2.77%	6.28%	0.50%	0.42%
Computer	2.85%	2.73%	2.96%	7.55%	8.44%	0.94%	0.82%
Primary sectors (e.g., agric.)	0.07%	0.11%	0.03%	0.34%	0.04%	0.03%	0.03%
Industrial, etc.	0.41%	0.55%	0.29%	1.46%	0.89%	0.21%	0.06%
Craft-related	0.56%	0.27%	0.81%	0.42%	1.92%	0.22%	0.38%
Clerical & business	0.17%	0.12%	0.21%	0.40%	0.62%	0.02%	0.05%
Others (e.g., hospitality)	0.84%	0.35%	1.25%	0.62%	1.56%	0.25%	1.13%

Estimates by ADB staff (C. Spohr) calculated using IHLCS 2009/10 household survey data.



Access to skills development and TVET is also limited due to the number of training institutions. MoLES only provides training in 3 institutions; Mol provides training in 9 industrial training colleges and MoST provides training through their government technical high schools (36) and government technical institutes (11) as well as their Government Technical Colleges (3). Enrolment criteria are passed grade 9; rigid enrolment criteria are also creating barriers for access to skill development and TVET. Significant for all of the training institutes are that there is a reasonable tuition fee at enrolment, but students have to pay for lodging and food. This is a burden for students who have left secondary school too early. A number of other line ministries also provide skills development and TVET like the Ministry of Cooperatives, but common for the access to TVET among the line ministries is the number enrolled every year is rather low compared with demand.

Several visits to training providers have shown that another critical issue is the poor condition of equipment as a result limited financial resources. All training institutions, with exception of ITCs are under equipped in terms of student ratio and equipment available. The condition of the training equipment is very poor as maintenance and repairs have not been carried out for years due to lack maintenance schemes and lack of funds. This is creating limitations for skills development and TVET training as the training institutions cannot provide practical training, why the training institutions compensate by raising the number of theoretical lessons. The condition of the equipment under MoLES is so poor that some of the training institutes has abandoned practical training and only provide "Overseas language induction courses" for students who want to apply for jobs overseas like Korea. At MoST training institutions, the equipment do not correspond with the number of students why many of the students are idle when others are performing practical tasks.

In respect of the quality of the training delivery it is considered to be poor, apart from the ITCs, teachers have no practical experience and have no affiliation with labor market. This reflects the practical capabilities of the students when graduating from training institute; many of the students are hired as trainees as the practical training continues in the industries after employment; this not very motivating for the students. Apart from lack of practical experience the teachers have not had any training in vocational pedagogy, why subjects taught, often is done after obsolete training methodologies. Valuable lesson hours are utilized for copying work sheets and instructional notes by hand as there are no funds for photo copying; while the students use their time for this, equipment is unfortunately staying in idle. Studies during phase two has also shown that GTHS also provides compulsory theoretical training which is not in line with the overall objective of the training. For example, students enrolled in electrician courses are still taught chemistry as it is a compulsory subject for admission to Government Technical Colleges.

The delivery of training in the majority of TVET institutions seems to follow a very traditional teacher centered pattern, with very little active involvement of students in activities of defining and solving problems, and without taking into account that the students have different preferred learning styles.

Further, in some institutions, the training delivery is split between lecturers and instructors, with lecturers being responsible for the theoretical part, and instructors being responsible for the practical part. Apparently there is very little cooperation and alignment between the two groups of teaching staff, which may result in a fragmented experience of the teaching process by the students. The training delivery in most TVET institutions seems to focus exclusively on delivery of programs leading to full qualifications. In doing so, the training institutions have nothing to offer adults being unemployed or employed. Internationally there is an increased tendency of focusing not only on full qualifications but also on partial qualifications in TVET. For some students a full qualification is neither possible to achieve, nor is it necessary for the person in question to perform his/her job function in the labor market. A flexible modularized TVET system would make it possible for TVET institutions to offer more individualized training to students, as well as to adults already employed or

unemployed. Whole modules, elements from modules or courses developed specifically to suite labor market needs should be offered to a broader audience, and in doing so the TVET institutions would play an active role in a Life Long Learning context. In order for this to happen, lecturers and instructors must acquire skills needed to assess the specific training needs of an individual, a company or a sector.

As mentioned Mol is the only ministry which has hired teachers which have a solid background as industrial practitioners, which is reflected in the rather practical training approach in the ITCs. However, it is important to point that Mol students are exposed to obsolete training methodologies as they use hours on copying technical drawings etc. At one center visited, students spent a month for copying technical drawings in the meantime all equipment like lathes, milling machines etc. was idle.

The above situation is unfortunately also a sign of poor funding to the training institutions as many of the institutions lack basic teaching and training aids. The remote situation of most ITCs also constitutes a problem for increasing access as the number of students enrolled is depending on boarding facilities.

Despite the complexity of limited access there are a number of possible solutions on a short, medium and long-term basis. It is not recommended to address training institutions under MoLES as they are few (3) and not, at present, in a condition where quality training and education can be provided. Therefore it is considered better to aim at upgrading institutions under ministries which already have a proper infrastructure like MoST and Mol.

### **Recommendations for improving increased access over the immediate term**

The limited access to TVET and skills development is a critical issue for Myanmar socio-economic development. MoST, Mol in collaboration with NSSA and its subcommittees need to establish working groups with the appropriate technical assistance provided from DPs; the working can review enrolment criteria with a view to accommodate skills development for disadvantaged youth. In collaboration with labor market stakeholders, MoST and Mol also need to develop a financial framework for skills upgrading for employees in relevant industries, the framework may be developed in collaboration with NSSA in order to ensure access to the national TVET and skills development fund, thus decreasing employers expenses for skills upgrading of staff.

An easy way to increase access is to extend opening hours of training institutions; however this will require supply of extra teaching staff, why it is recommended that GTHS and ITCs develop budgets which include extended opening hours for e.g. short courses and related material costs. Increasing opening hours from e.g. 6 am to 9 pm could increase access with 30-40 % of the existing enrolment.

Curricula and training delivery in GTHS and ITCs are not efficient and need to reflect the “real world” of the labor market environment. Already at the institutional level students need to adapt industry standards and behavior, therefore training institutions need to adapt an industry environment where students are accustomed to the realities of the world of work. This will mean less focus on passing semester and marks, but focus on projects which could serve the local community and also serve as an income generating activity for the training institution. Curricula and training delivery should be more efficient, taking in mind, that training equipment needs to be utilized close to hundred percent. Students need to be given responsibilities, explore and learn from their mistakes when working. Mol and MoST with appropriate technical assistance need to review and rewrite curricula and modalities for training delivery, consequently the interest for TVET will increase amongst students.

## **Recommendations for improving increased access the short to medium term**

The poor condition of equipment available at especially GTHS is a barrier for promoting TVET and skills development. Therefore MoI and MoST and their GTHS and ITCs need to develop investment plans which in future bring the training institutions up to center of excellence (COE) standard (see also section 6.2.2). In order to meet the needs of the local labor markets it is crucial that labor market partners are part of the initial development of such plans. Technical assistance need to be provided in order to develop investment plans which may be combined with business plans for the individual training centers. Business plans shall review the existing situation of TVET delivery in terms of courses delivered, number students enrolled and human resources attached to the center. These business plans need to take into account a future outlook for the center in terms of serving local labor market partners; which new courses which could be an investment for the center in terms of increased enrolment and better access to employment for the students and how the center in plans to become a COE that strongly interacts with labor market partners. Investment plans/business plans should lead to the development of procurement plans for the individual training centers; procurement plans need to be approved by the relevant governing body or line ministry and reviewed in collaboration with development partners for investment purposes. Investment and upgrading facilities and equipment will in a long perspective also increase the interest of students as they will get access to “world class” training centers. The establishment of an apprenticeship system may also be an opportunity for future increased access, however apprenticeship systems requires strong relation and collaboration with the labor market in order to ensure that training and learning is acquired after standards set by the authority. Furthermore, apprenticeships require strong regulations and audit mechanisms, which over the medium term shall be developed.

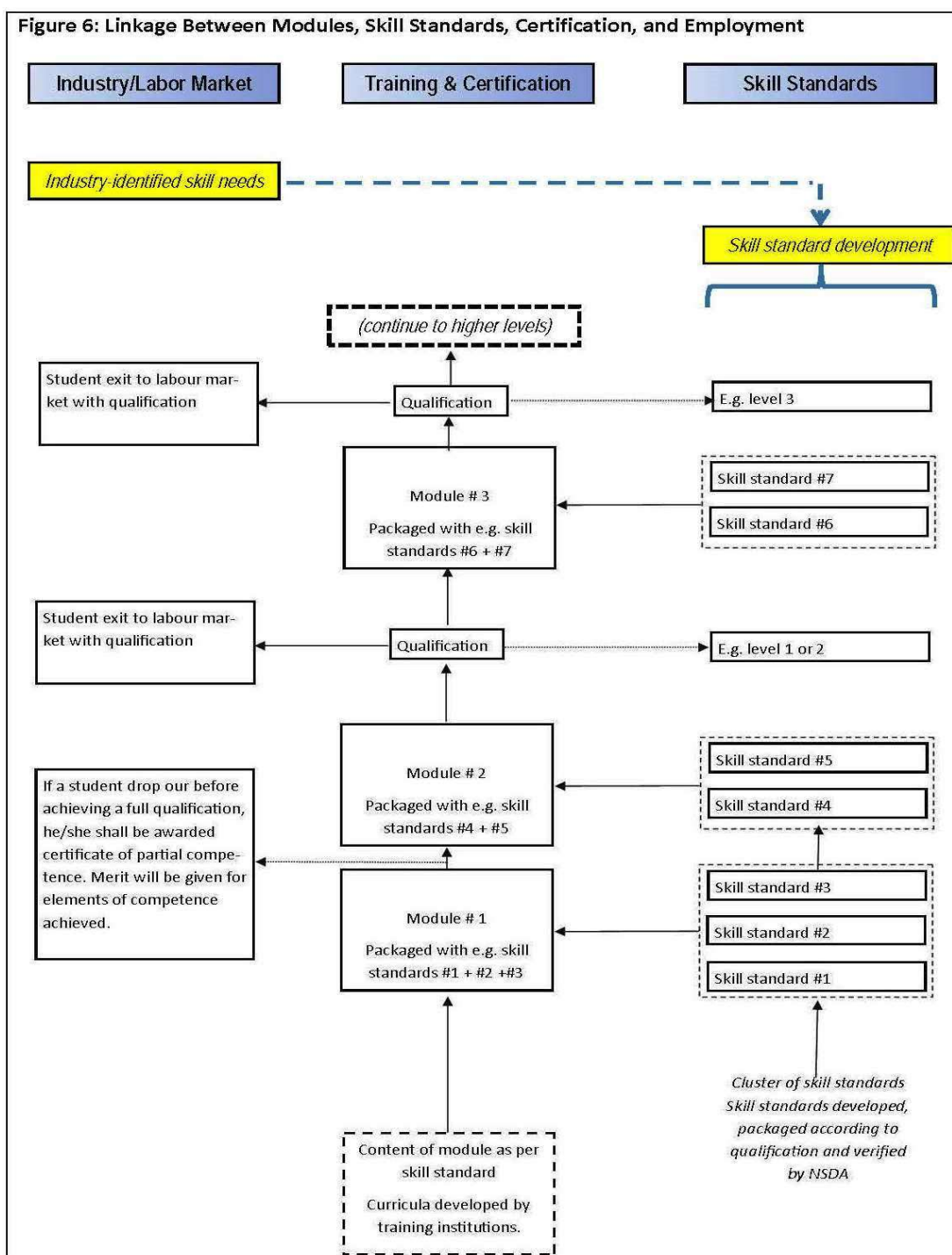
### **6.2 Delivery of short competency-based modular short courses**

In order to reach out to the vast number of young people in need of basic skills (including those with limited formal education) as well as unemployed, it is highly recommended that training institutions under MoST and MoI develop and deliver short courses that are competency-based and modular (allowing youth and workers to continue to improve their skills). Such short-courses will help address the gaps in basic skills needed in order to support modernization in both the rural and urban economies. The introduction of modular, competency-based short courses can also play a critical role in advancing equity and inclusive growth, by expanding access to skill training and/or upgrading opportunities for workers as well as unemployed/underemployed youth (including school leavers) and adults from poorer rural and urban areas. Development and demonstration of sustainable models for short courses—along with capacity development of teaching and managerial staff will support replication to other line ministries. It could provide a new tool to reach a large population within the working age that requires skill development to increase productivity and employment opportunities; opportunities which currently difficult to reach via existing TVET modalities.

The modular short courses shall be based on skill standards developed and acknowledged by the NSSA. If such standards do not exist, local training boards shall have the right to recommend to the NSSA that skill standards are developed within the required fields of work. The modular short courses will in the beginning address qualification levels one and two, but later be expanded to cover up to level four. This can be done through the modular approach, where each module will contain one or more skill standards, which are packaged in such a way that they constitute a module. The modules will be building blocks for capacity development. When a module has been achieved and assessed by industry and institutions the student can choose to continue and “build” further competencies on to the already achieved or leave for the local labor market.

In respect of curriculum development it is highly recommended that teachers at the training institutions are mandated and trained to develop their own curricula and lessons plans, but conditions shall be that elements of competence and performance criteria addressed in the skill standards are included in the curricula. In order to quality assure such mechanism, it is proposed that NSSA on regular basis inspects and check lesson plans.

Figure 6 shows how modules can be aligned with industry skill needs and related skill standards, while also support iterative up-skilling, as youth and workers progressively climb up the skill ladder and/or diversify their skills through a series of trainings over the course of their careers.



### **6.2.1 Recommendations for immediate activities to prepare for the implementation of short courses**

With the appropriate technical assistance NSSA and other stakeholders need to finalize the proposed Myanmar qualifications framework. With the Myanmar qualifications framework operational and recognized by the ASEAN regional qualification framework, the Skill standard committee under the NSSA shall package skills standards in modules and align them according to the developed Myanmar Qualifications Framework. In parallel with the packaging of skills standards, the testing and certification system need to be reviewed and reformed. Testing needs to involve industry and guidelines for the selection of industry assessors need to be developed. In order to gain immediate results, the proposed ADB pilot project: “Skills development through inclusive growth” with its selected pilot training institutions will pilot a new testing and certification system with the involvement of labor market partners. Likewise the above mentioned ADB pilot project will pilot a modular approach with packaged skill standards.

### **6.2.2 Recommendations for short to medium term actions.**

Based on the results from the ADB pilot project NSSA and its skills assessment and certification sub- committee shall finalize and introduce an national efficient and effective testing and certification system with the participation of industry. The system shall be operational for the recognition of skill acquisition at level 1 to 4. In parallel and with the support from development partners, the skills assessment and certification committee shall develop a national credit and merit system including guidelines for recognition of prior learning, which shall become operational immediately after the introduction of a new testing and certification system. A Myanmar credit system for skills achievement shall be aligned with ASEAN regional qualification framework and will support overseas employment opportunities for young people. In the medium term MoI and MoST in collaboration with the TVET authority/council<sup>20</sup> and the NSSA should select regional COEs. However, it is important to observe that the establishment of COEs will need to ensure equity, as international experience indicates that investments to build up COEs have a very mixed track-record in delivering on their intended role to support weaker institutions or broader systems. Potentially, 1 COE in each region could be developed as a specialized COE for curriculum development in a given skill area (and skill standards, if these don't yet exist or require refinement), as well as related teaching and learning materials. In this way, a modest number of COEs could collectively support expert development of curriculum in a variety of skill areas, and then support dissemination of curriculum and related materials to other TVET schools nationwide. COEs could also become assessment centers for recognition of prior learning, as well as provide support other centers in the training of industrial assessors.

In the short term, the NSSA shall develop registration guidelines for provision of TVET services, a TVET provider database shall be established and maintained by the NSSA, this will create an institutional map of TVET providers in Myanmar as registration shall be made compulsory. This will require that an internet network is established and at least government training institutions is provided with internet facilities; the establishment of an internet provider registration network/database as well as the establishment of internet facilities at the training institutions need to be supported by development partners.

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<sup>20</sup> It is expected that with enactment of the TVET Law, a TVET council will be established in 2015



Registration of TVET providers and a well maintained provider database will for the first step towards the development and implementation of an accreditation system.

### 6.3 Assessment and certification

Introducing a competency-based modular training system based on the use of skills standards will require a reform of the existing assessment and certification system. Traditionally, in Technical Vocational Education and Training (TVET), assessment determines whether or not a person should receive a qualification. The concept of assessment implies that assessment is a single event, like an exam or formal test. The concept of assessment is broader. Assessment may include formal tests or examinations. However Competency-based Assessment (CBA) also implies that there may be other methods of assessing competence, which is the demonstration of the skills, knowledge and attitudes that provides “evidence” that a person can perform a job to the standard specified by industry. Competency Based Assessment is the process of showing that a person can perform according to prescribed skill standards. Competency Based Assessment involves collecting evidence in order to prove that a person can perform against the elements of competence and performance criteria as stated in skill standards. In traditional assessment, a person takes a single test or examination. In competency based assessment, there are a number of activities to determine whether a person has demonstrated competency. An individual can be assessed during their training, at the end of their training, or without even undertaking any formal training (Recognition of Prior Learning).

Competency based assessment builds on the use of external assessors recruited from industry. Local advisory boards need to have the mandate to recommend individuals suitable to perform as external assessors. Recommended external assessors shall be validated by the training institution and recommended for assessor training. To become an external assessor, the local advisory board must be able to provide sufficient evidence that the recommended person meets the conditions required for assessors. When a suitable person is identified to become an assessor, the individual must be able to provide sufficient evidence that he/she meets the conditions required for assessors. A suitable person to become an assessor shall be expected to master technical expertise and experience in the field, have good interpersonal skills, be observant and have an analytical mind and a desire to help people have their competencies recognized. Once an individual is recommended by the local advisory board and validated by the training institution the respective authority line ministry shall and accredit the assessor.

#### *Assessment Resources*

It is recommended assessment resources developed by the skills assessment and certification committee under the NSSA contains an assessment package for each skill standards or cluster of standards. The assessment package shall consist of:

- A description of a problem to be solved or of a workplace application;
- An outline of the task/s to be completed in order to solve the problem or complete the application;
- The tools, equipment and materials made available and other assistance required (such as helpers, reference materials etc.);
- A justification as to why the problem or task presented was solved in the way it was or for how the application was carried out;
- Areas in which questions should be asked to test underpinning knowledge.

Assessment resources must be based on real life practical skills and relevant to the workplace and the problems to be solved must derived from real workplace issues; candidates must justify what they are doing it is like explaining to a customer or client why a job needs to be done and how it will be done.

### *An efficient and valid assessment system*

In order to create an efficient assessment system it is recommended that the use external industrial assessors is introduced, however in a competency-based training system teachers will in future also be assessors. It is recommended that assessment is done locally at the institutions with the use of external industry assessors and the teacher responsible for the training. The assessing body shall in future only consist of these two persons. In order to quality assure such a model, the local advisory board shall validate teachers employed at the training institutions; on the other hand training institutions shall validate external assessors; during the assessment the external assessor will assess on behalf of the training institution and the teacher will assess on behalf of the local advisory board. In future, accredited training institutions shall have the mandate to issue certificates on behalf of their line ministry or authority. This will ensure that the assessment and certification process is done faster with no inconvenience for the student. Therefore, it is also anticipated that a new assessment system will increase the number of students assessed

#### **6.3.1 Recommendations for the implementation of a new assessment and certification system over the immediate term**

Shortly after the review and revision of curricula and training plans and in order to support the pilot of a new assessment and certification system, the skill assessment and certification committee under the NSSA need to form working groups with the participation of teachers and representatives from the labor market with the purpose of developing an assessment guide as well as assessment items for modular assessment. A test bank accessible for selected pilot training institutions shall be established through an established TVET provider internet network and governed by the skills assessment and certification committee. As immediate action it is recommended that test items are developed progressively starting with level 1 and continuing up to level 4. Sectors selected for the development of assessment items need to be aligned with the specific programs delivered at the selected pilot institutions under the ADB pilot program: "Skills development for inclusive growth". If institutional assessment procedures are in line with the developed assessment guidelines, the selected pilot institutions shall be authorized to issue certificates on the behalf of the respective line ministry.

#### **6.3.2 Recommendations for implementation of a new assessment and certification system over the short to medium term**

Based on the experience gathered during the pilot phase and with technical assistance from development partners, a unified assessment and certification system with industry involvement shall be developed and accepted by all line ministries involved in TVET delivery. Guidelines for the criteria and use of external industrial assessors shall on the medium term be developed and made mandatory by the NSSA and the assessment test item data bank shall be expanded and include a registry of accredited assessors.

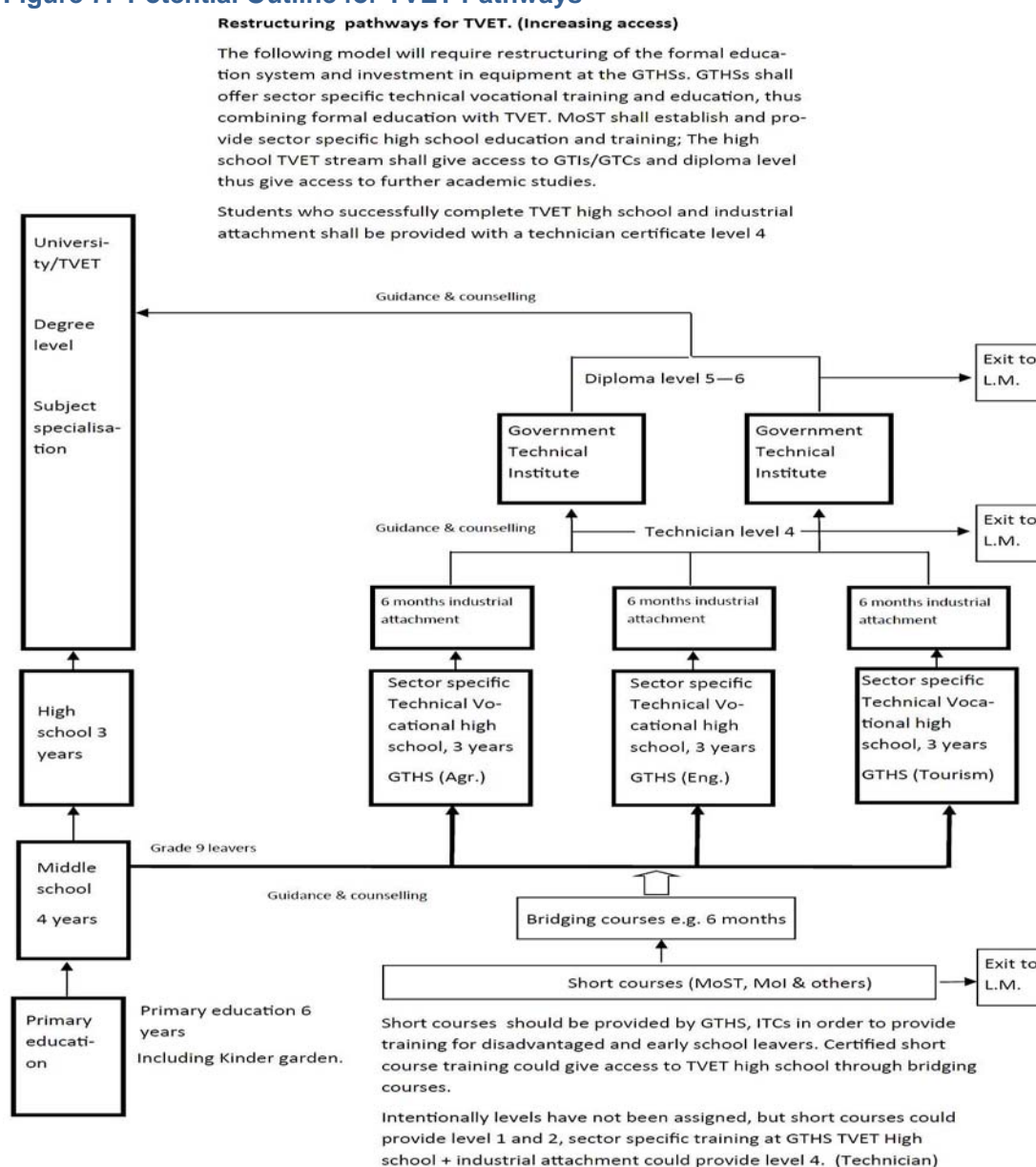
The advantage with a unified assessment and certification system will be that TVET students will gain recognition of training and skills acquisition disregarding which training institutions the student have been attending. The involvement of local labor market partners in assessment will also increase the credibility of skills acquisition and eventually make the TVET and skills development more attractive and thus make the students more employable.



## 6.4 Increasing access, including introducing and strengthening the upper secondary-level TVET stream and introduction of competency-based short-courses at GTHS

In order to increase access to TVET, a pilot project will be introduced that focuses upon strengthening MOST's government technical high school (GTHS) system, which has recently restarted provision of an upper secondary-level TVET stream. Selected middle secondary schools might also establish student's guidance and counseling services, to promote consideration of GTHS as an alternative to general-track (academic) upper secondary education. At the same time, it will be critical to enhance the quality and labor-market relevance of GTHS (the current curriculum and instruction are somewhat theoretical and academic in their approach), so that graduates are well-prepared to enter employment upon graduation. MOST should also coordinate with MOE to develop learning pathways, so that selecting GTHS is not seen as a "dead end" (i.e., GTHS graduates could work for several years, and still have the option to enter universities later).

**Figure 7. Potential Outline for TVET Pathways**



A strengthened TVET stream at the upper secondary level could increase access to TVET, and could potentially reduce both the number of dropouts from general-track secondary education as well as post-secondary TVET, since students will be better prepared for a technical career. The strengthened GTHS system (upper secondary TVET stream) should continue to include appropriate theory and academic elements (i.e., foundational skills to strengthen students' ability to utilize numeric, literacy and language skills in a technical context), and will presumably include some courses or elements from the MOE high school curriculum, which will be reformed during SY2019/20-SY2021/22 to improve relevance to Myanmar's new socioeconomic context, and extended to add grade 12). However, it should also strengthen the focus on master of applied skills to ensure students' prospects for employment immediately upon graduation. The GTHS system should also include sector-specific elements, giving students an opportunity to choose a future technical career of their interest: e.g., hotels and tourism, construction, IT, electronics, etc. This will need to be supported by a well-established and functional guidance and counseling system which can guide the students according their preferences of study.

Following examples like the People's Republic of China, the final year of the new GTHS curriculum (which is expected to be extended to 3-years alongside MOE's curriculum reforms) could also include or be followed by a 6-month industrial attachment in a relevant industry/business. In this way, students will be able to achieve a full qualification under the Myanmar qualifications framework: likely reaching level 4.

Alongside this shift in upper secondary-level TVET programs at GTHS (which will become a 3-year curriculum with stronger practical training focus), GTHS can also expand their provision of skills development through by launching short-courses. While using GTHS facilities (and potentially also ITCs and other training institutions under other ministries), short-courses would be distinct from 3-year GTHS programs. Competency-based short courses would principally target early school leavers as well as un- or low-skilled workers, providing skills up-grading, for example to a level 1 or level 2 certificate. As part of a CESR "Quick Win" program for FY2015/16, with support from ADB and the Japan Fund for Poverty Reduction, MOST and MOI are currently developing and pilot testing a model for competency-based modular short courses in 7 skill areas, which (if successful) could be replicated and expanded in terms of geographic and skill area coverage.<sup>21</sup>

These twin reforms centered on GTHS—(i) strengthening the upper secondary TVET stream; and (ii) introducing and expanding short courses will have a significant positive impact on access to TVET. At the same time, these reforms will require considerable efforts within MOST to upgrade GTHS to serve both roles. This will include substantial investment in terms of equipment and facilities (e.g., workshop facilities to support increased applied elements): to gauge specific needs, it is recommended that MoST initiate an inventory of existing facilities. Moreover, investment in capacity development will be at least as critical, including TVET teacher capacities related to curriculum development and modern pedagogy to deliver competency-based programs, and principals/managers on broader GTHS management, including interaction with local industries. Given the need to teach at GHTS, with the delivery of short courses as well, will require a substantial investment in terms of equipment and capacity building of the GTHS. Given currently low enrolments in the sizeable number of GTHS (36), quality-side improvements appear more urgent than establishment of new GTHS, though stronger quality and demand for TVET could provide a basis for later expansion.

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<sup>21</sup> The pilot test supported under TA 8634-MYA: Skills Development for Inclusive Growth focuses on 3 MOST GTHS and 2 MOI ITCs, collectively spanning Mandalay, Naypyitaw, Pakokku, and Yangon.

The reforms above will also require close coordination with other ministries (particularly MOE) in 3 dimensions: 1) cross-cutting policies and cooperation between MoST and MoE (e.g., to establish new pathways); 2) coordination with MOE on general-track secondary education curricula reform (to ensure relevant elements are incorporated into the new GTHS curriculum); and 3) development and launch of new programs for secondary education dropouts and unskilled workers under MoST and other ministries.

These reforms will also require close engagement with local labor markets, hence it is strongly recommended that local advisory boards are established for each GTHS. If not possible to establish boards at the local level (e.g., due to absence of industries as a minimum requirement), regional advisory boards must be established. In the future it should also be foreseen that GTHS may transform themselves to be more sector-specific TVET schools, depending on the needs of local and national labor market. MoST should consider selecting GTHS to provide training within areas which are not within the traditional domain of MoST. This would need to be done in close collaboration with other line ministries providing TVET. Potential focal areas for establishing new sector-specific streams should follow identified skill needs in growth sectors such as agriculture, forestry and fisheries, agri-food processing, business, community and social services, computing and information technology, electronics and electrical, energy/ extractive, engineering, health, infrastructure, manufacturing, wholesale and retail, tourism/ hospitality and transport.<sup>22</sup>

Apart from establishing local/regional advisory boards it is also recommended that the GTHS establish a local labor market secretariat, which (apart from being a secretariat for the local advisory boards) also maintain close contact local employers as well as constantly monitor the local labor market for job opportunities. By time these labor market secretariats should be transformed into guidance and counseling/job exchange offices.

To ensure access to formal training for disadvantaged youth and un-skilled workers, the reforms above may also need to include the introduction of bridging courses. Bridging courses shall provide the theoretical foundation before unemployed or disadvantaged youth proceed into the formal stream of TVET. Bridging courses may be differentiated in terms of time depending on the target group.

#### **6.4.1 Specific Recommendations the immediate term**

In order to increase access and reform the Myanmar TVET system, MoE and in collaboration with selected line ministries, the MOE shall form a working group in order to review upper secondary educational content and curricula in order to create a strengthened upper secondary TVET stream that complements the forthcoming new MOE curriculum for general-track secondary education. Other TVET line ministries from different sectors (e.g. the Ministry of Industry, Ministry of Hotels and Tourism, Ministry of Transport , etc.) should also be involved, to provide opportunities for including a range of skills in the new curriculum for GTHS as well as an expanding array of short courses that could later be rolled out under other training institutions as well.

#### **6.4.2 Recommendations for introducing a strengthened GTHS stream and competency-based short courses in the short to medium term**

In collaboration with relevant ministries, MoST should take the lead in developing sector-specific curricula for programs to be run in GTHS, including (i) competency-based short

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<sup>22</sup> David Lythe, AREAS FOR TVET REFORM IN MYANMAR, September 2013

courses; and (ii) future 3-year GTHS programs. These should be based on or developed alongside new or improved skill standards. In parallel, involved stakeholders shall develop a HR development plan for sector-specific TVET staff at the GTHS, as staff must be able to undertake effective teaching of both theoretical and practical aspects. In order to minimize the challenge, teaching staff from training institutions under different line ministries might be seconded to GTHS, to work with existing MOST staff in the short term. Short-courses could be launched after curriculum is developed and capacity building and expansion of facilities have been completed. In the medium-term, new short course curricula as curriculum can provide the building blocks for the new 3-year GTHS upper secondary-level TVET curriculum, which could embed or be followed by a 6-month industrial/business attachment such as an internship. The modality should be tested thoroughly and might lead to a level 4 qualification. To ensure increased access, bridging courses should also be developed and introduced in order to give access to students who have acquired skills through short courses as well as labor experience access into more advanced TVET programs.

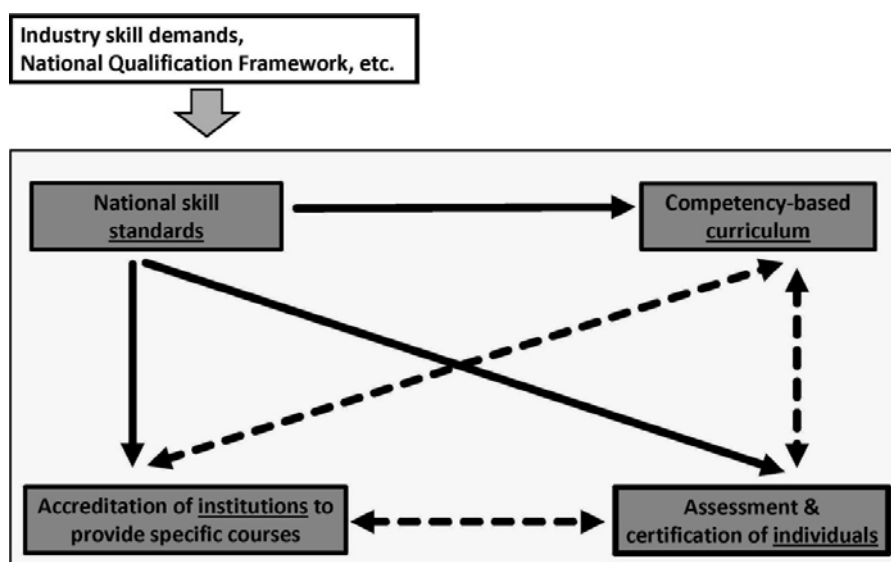
## 7. Quality and relevance

### 7.1 Conceptual Framework for High Quality, Demand-Driven TVET

Strengthening the quality and relevance of TVET will be critically important to Myanmar's TVET system and to advancing broader socioeconomic objectives. To some extent, as well as with strengthened TVET subsector management, enhanced TVET quality and relevance should be seen as a prerequisite to expanding TVET access. On one hand, improved quality and relevance ensures that investments to expand TVET access (e.g., new facilities, equipment, stipends, etc.) deliver intended benefits for trainees and the economy. At the same time, enhanced quality and relevance will be critical to sustainably expand TVET access in Myanmar, since good quality TVET leads to good jobs upon completion, which feeds back into greater demand for TVET from both individuals and employers.

However, international experience suggests that improving TVET quality and relevance is challenging, and fractured, ad hoc, and non-systematic efforts are not likely to succeed. Establishing a coherent and effective framework and operational systems for ensuring TVET quality is thus an urgent priority. The Employment and Skills Development Law provides some important building blocks. Building on these, to help guide construction of a new, diverse, and demand-driven TVET system, dialogue among multiple ministries and development partners linked to the CESR supported formulation of the simplified conceptual framework shown in Figure 8.<sup>23</sup>

**Figure 8. Conceptual Framework for High Quality, Demand-Driven TVET**



This simple conceptual framework above illustrates the inter-linkages between 4 core strategic pillars, with the first pillar (skill standards) providing the foundation for the other

<sup>23</sup> See also "Brainstorming on Basic Skills-Related Concepts" (presentation from ADB-JPFR TA 8634: Skills Development for Inclusive Growth-supported brainstorming at MOLES on 13 October 2014).

pillars related to TVET program curriculum, testing and certification of individuals, and accreditation of institutions to deliver specific TVET programs. In the simplest terms<sup>24</sup>:

- (i) **Skill standards** identify specific applied competencies that need to be mastered to function as a worker in a given skill area and at a given level of technical sophistication (e.g., “MIG-MAG welding level 1”). Formulation of skill standards would link to levels in the forthcoming National Qualifications Framework and align with both international standards and the Myanmar context, and would be anchored in industry skill demands;
- (ii) A **competency-based curriculum** lays out the roadmap for delivery of a TVET program intended to produce trainees mastering the competencies identified in a given skill standard;
- (iii) Skill standards also provide the basis for developing instruments to **test and certify individuals’ mastery of specific skills at a given level**, including individuals who have just completed a training program and those seeking recognition of prior learning (RPL); and
- (iv) **Accreditation of a TVET school or other public and private sector institution to deliver a specific TVET program** in a given skill area and level shall be based on evidence that the institution has the capacity to produce trainees who master the competencies set out in the related skill standard. Such factors include having a sound curriculum, qualified trainers, adequate facilities, etc.

### 7.1.1 Recommendations for the immediate and short terms

Alongside dialogue on formulation of the TVET Law, National Education Sector Plan, and other key legislation, policy, and planning documents, it is recommended that the MOST, MOLES, and other relevant agencies (with development partner support) undertake continued dialogue to flesh out this framework and develop related structures and mechanisms related to each of the 4 noted pillars. In this process, it will also be important to clearly identify responsibilities for various elements under these pillars, including those of existing agencies like the NSSA as well as the proposed TVET Council, to ensure a clear division of labor within a cohesive system (i.e., avoid fracturing into different systems for “formal TVET” and “nonformal TVET”). Such dialogue may draw on recommendations for specific elements and approaches outlined in the remaining subsections of chapter 7.

## 7.2 Quality Management Criteria and Self-Assessment

Alongside macro-level shifts to reorient and consolidate the TVET subsector based on the above framework, at a more micro-level, it will be important to identify specific quality management criteria to define the expected performance of quality assured TVET providers. Quality management criteria and indicators can be used by all training providers as a common reference point and tool for quality management. They may come under the quality assurance umbrella of an assigned unit (likely under NSSA or the prospective TVET Council), and governed by the quality assurance system units under the regional TVET councils, the respective line ministry(ies), and their concerned departments. Each quality management criterion shall consist of two parts. The first part the quality criteria is a statement of quality practice, then expanded into measurable terms by one or more evidential statements - quality indicators, which are prefaced by the phrase “Demonstrated by”. The indicators shall identify the evidence required to

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<sup>24</sup> Additional elements would link to this simplified framework: e.g., testing and skill certification of individuals may involve authorization of government or privately operated testing centers.



demonstrate that the stated quality practice – the quality criteria which is being followed appropriately by the training institutions.

These criteria can support development of quality management system that supports TVET institutions in quality assurance and improvement.<sup>25</sup> Programs may be evaluated on the quality management criteria in a three phase process that consist of:

- Training institution self-assessment, feeding into program improvement plan development
- Improvement plan implementation, and
- Validation review and formal accreditation of institutions to offer specific programs.

Self-assessment is thus a foundational element of quality management, particularly in the interim period as Myanmar constructs a systematic formal accreditation system. While a relevant third-party government agency should develop a checklist(s) to support self-evaluation, ministries/entities overseeing training institutions and/or the institutions themselves must do a comprehensive examination of all aspects of their mission, programs and services. The self-assessment process done by the training institutions shall work toward achieving the following key purposes:

- To determine compliances with established quality management and quality assurance criteria.
- To prepare a baseline quality profile of the institution and its programs.
- To review alignment with stated training/performance goals and objectives
- To identify areas of strengths and weaknesses (As per the below six quality management criterion)
- To identify and schedule for improvement in those areas most likely to cause the institution to fail a quality audit process (Future accreditation)

It is proposed that self-assessment shall be carried out by the training provider and shall involve an assessment in terms of a range of 6 quality management criteria defined by the NSSA or other governing body, which should be:

- Curriculum and instruction
- Qualified and competent personnel
- Equipment and materials
- Community, business and industry involvement
- Career guidance
- Assessment and examination

It is worth emphasizing that the purpose of self-assessment is **not** aimed at finding faults, but to assess current performance and offer a sensitizing process for continuous improvement in quality of TVET program provision. The process and its results can contribute valuable information in terms weaknesses and strengths, thus being a tool for further improvement.

The role of clear criteria in developing a reliable accreditation system is discussed in section 7.3.

### 7.2.1 Recommendations for quality criteria and self-assessment

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<sup>25</sup> Elements may include (i) a quality policy statement, which provides the framework for quality systems within the institutions; (ii) strategic planning, which occurs at the institution level, as well as at faculty and division level; (iii) annual quality report for the concerned agencies; (iv) annual quality reviews (quality audits); and (v) other specific initiatives aimed assessment and continuous quality improvement.



Robust quality assurance criteria and management guidelines need to be developed. It shall be the accrediting authority who shall, with technical assistance from development partners, develop quality assurance guidelines. In the immediate term, NSSA is best positioned to undertake this responsibility. Moving forward, pending dialogue on the forthcoming TVET Law, NSSA or the proposed TVET Council could take on this role, and also be responsible for quality audits in collaboration with concerned line ministries.

In parallel, it is recommended that pilot initiatives (e.g., MOST's and MOI's development and pilot testing of competency-based modular short courses for disadvantaged youth under ADB-supported TA 8634-MYA: Skills Development for Inclusive Growth) draft a quality assurance manual for participating institutions. Quality assurance manuals shall contain quality criteria for equipment, classrooms, workshops, training management, assessment of students etc. Institutional quality guidelines developed shall be measured against the quality criteria developed by the accrediting authority.

### **7.1.2 Recommendations for introducing TVET quality assurance over the short to medium term**

Over the short and medium term a quality assurance system guided by the accrediting authority shall be rolled out and be implemented in all institutions who will apply for accreditation. An institutional quality assurance system must be conditional for accreditation of TVET institutions to offer specific courses, while the accrediting body will focus on capacity building for development of institutional quality manuals.

## **7.3 Formal Accreditation**

As noted in section 7.1, a core pillar of a high quality, demand-driven TVET subsector (and its quality assurance system) is the accreditation of institutions to provide specific TVET programs. TVET providers must follow quality standards defined by the suitable authority to become an accredited training provider. In order to create a unified quality assurance system, it is recommended that a single entity (likely either the NSSA or potentially the forthcoming TVET Council) be the governing/oversight body for accreditation—though, as in the case of assessment and skill certification of individuals, the governing entity may authorize other agents to carry out actual accreditation of programs at institutions.

The main purpose of introducing course accreditation (alternately termed formal recognition of a course) is to uphold high standard of quality training and expectation to the various stakeholders of the TVET system in Myanmar. It must be emphasized that accreditation refers to accreditation of TVET institutions to offer specific courses, and will be issued for courses and not the institution overall. For example, a given institution may achieve accreditation for (for example) 3 specific courses, while not being accredited to offer other courses until being accredited to do so.

The following are the main objective of course accreditation:

- To certify training providers and their courses that meets certain quality standards;
- To identify standard training providers for meeting the needs of the stakeholders including students, parents and employers;
- To foster excellence in the TVET institutions through the development of criteria and guidelines for assessing effectiveness of education and training;
- To create goals for improvement and raising of standards among registered training providers;
- To establish criteria for national certification and for upgrading courses; and

- To provide basis for determining eligibility for assistance and investment of public funds for continuous improvement.

Accreditation also provides a key tool to maintain and improve TVET quality and relevance by feeding back into program management and continuous improvement of training courses.

The training provider (public or private) that offers accredited courses will have benefits which include:

- National and regional recognition of quality, accountability and public trust;
- Course accreditation certificate which may be used as a marketing tools to increase enrolment of student;
- Improved prospects for trainees' employment upon course completion, since industries know that accreditation is based on courses' ability to ensure students master competencies required by industry;
- Accreditation provides opportunities for training providers to develop their courses to exceed the prescribed minimum requirements and criteria;
- Access to support and services from the governing body to continually improve the quality of training;
- A continuous improvement process that increases the focus on student performance;
- Accreditation provides institutional growth through internal and external evaluations;
- Training providers offering accredited courses can issue Certificate level 1-4 on behalf of the governing body.

### **7.3.1 Recommendations for establishing an accreditation system over the immediate term**

It will be critical that drafting of the TVET Law clearly defines accreditation and related responsibilities (e.g., the roles of the NSSA, TVET Council, and/or other entities), including distinguishing (for example) governance/oversight from implementation of accreditation procedures. In parallel, efforts to develop/strengthen skill standards and other pillars of the quality conceptual framework will feed into development of accreditation systems in the short to medium term.

### **7.3.2 Recommendations for establishing an accreditation system over the short to medium term**

After clear responsibilities are defined, it will be important for the governance/oversight body for accreditation should establish audit manuals, procedures, a small audit division and a database which includes the accredited institutions and their courses accredited. Related technical assistance may also be sought from development partners. In developing and rolling out the accreditation system, it is recommended that special attention is given to accreditation of private training providers, to support expanded and quality-assured private TVET provision while opening possibilities for public-private partnerships in the TVET system. Over the medium term the accrediting body may identify training institutions for higher-tier accreditation as centers of excellence (COEs) in a given skill area, which could also potentially serve as assessment centers for recognition of prior learning.

It is also recommended that the accreditation database—which is expected to expand as more institutions are accredited to provide specific TVET programs—should be made

public, which will assist users to identify training institutions to meet their skill needs and ensure trainees access programs at qualified institutions. As the system expands audit and accreditation procedures may be delegated to regional offices or other agents to reduce costs and enhance implementation.

## **7.4 Capacity building of TVET staff**

Apparently there is no systematic staff development taking place at the TVET institutions. In the absence of institutional business plans and annual plans, which specify the institutional need for future staff capacities; systematic staff development to fit the institutional development needs does not take place. This means that the managements at the TVET institutions are not able to carry out a targeted strategic HR development. As mentioned above, it can be envisaged that in the future there will exist a mismatch between the qualifications of the teaching staff and the requirements of the skill standards defined by industry, this will call for targeted business plans including upgrading and diversifying of teacher qualifications.

The most valuable asset of the TVET institutions is staff, notably the teaching staff. International examples show that dedicated teaching staff can – even in institutions that are not fully updated with equipment – achieve remarkable results in assuring the students relevant employment after graduation. Consequently, it is important for the TVET institutions to look critically at the future needed qualifications of the teaching staff and put in place a system that facilitates and encourages the continued development of the competencies of the teaching staff

The introduction of a CBET system requires the acquisition of new skills and knowledge of the teaching staff. In order to ensure that a systematic training of lecturers and instructors is achieved, it is proposed to mandate specific institutions with that responsibility. By building capacity in selected institutions regarding training of teachers and instructors, a vehicle need to be established by either NSSA or other line ministries to ensure that the process will continue and be sustainable.

As an immediate intervention it is proposed that a Technical Teacher's Training and Resource Centre is established. The vision and mission of the Technical Teacher Training and Research center may be as follows:

Being the central national developmental research and technical teacher training center in the field of vocational and technical education, the center is known – in Myanmar as well as internationally – as a Centre of Excellence, which contributes to the competitiveness of the national economy as well as to the social inclusion of the Myanmar population.

Through education and training of educators in the field of technical vocational education to create and maintain a flexible and productive private labor market in Myanmar, so the skilled and unskilled workers are always excellent and are proud of both their skills and their importance to society.

The center is to be known for high professional quality, education for more young people and development-oriented and efficient institutes in Myanmar. By generating and developing new knowledge through research and sharing it, by teaching and training all stakeholders in the vocational field in a flexible and innovative manner and by focusing on the needs in the Myanmar society, the center is an inspiration to all stakeholders and greatly improves the employability of Myanmar youth and unemployed. Education is the key to solving problems and to build the desired society of tomorrow. The center shall create skills, knowledge and attitudes in close connection with the practical work for the benefit of humans and society.

The main activity for an established Technical Teacher's Training and Resource Centre will be teacher training for TVET teachers employed at TVET institutions. A TVET teacher training program needs to be developed with the following aim.

The basic TVET pedagogical course shall give the teachers, with background in their professional skills, a comprehensive and varied theoretically and practically pedagogical foundation as teachers at a TVET institution. The teachers shall acquire knowledge amongst other about:

- Planning, implementation and assessment of competency-based training directed towards formal or informal sectors of Myanmar
- To assess the need for education
- To use pedagogical theory in this work

The course must further ensure the personal development of the teacher, awake the interest of technical vocational training as well as qualify for the development of skills development and industrial vocational training. Furthermore the course must give a foundation for the relationship between the teacher's work and the vocational training institutions role in the society.

With the introduction of competency-based training, the instructors employed in Myanmar technical vocational training institutions are to expect more varied work tasks. Apart from implementing competence-based training, they must be able to take part in all the phases of the institutions educational matters, training management and training planning such as:

- To analyze and assess trainees preconditions as well as adjustment of the teaching/training to the trainees actual premises
- To choose teaching and training methodology which fits to the premises of the trainees, plan and design tailor made courses and industrial training for skills development.
- Choose the content of the teaching/training, organize an actual teaching/training sequences and develop relevant curricula.
- To analyze and assess short and long-term educational/training needs in co-operation with industries, organizations and institutions.
- To choose or/to produce own proper and relevant teaching and learning materials.
- To be able to perform differentiated assessment and eventually be able to follow up on the implemented competency-based training.

#### **7.4.1 Recommendations for capacity building of TVET staff over the immediate term**

In order to map out the various competencies of existing staff at TVET institutions it is recommended that a capacity assessment of teachers and instructors at selected training institutions is carried out by the different line ministries. The assessment of HR capacity shall be followed up by a review of existing job descriptions which may need to be adjusted to meet the demands for introducing a competency-based education and training system in Myanmar. The capacity assessment of staff at TVET institutions and reviewed job description may form the basis for a capacity gap analysis. The analysis may be the basis for a comprehensive capacity development plan as well as the foundation for a modular pedagogical teacher training course with the aim to train teachers to use new and modern teaching methodologies, develop curricula and teaching and learning material following the national skill standards.

#### **7.4.2 Recommendations for capacity building of TVET staff over the short to medium term**

Over the short and medium term technical assistance shall be provided in order to develop a modular pedagogical teacher training course based on the finding of the capacity gap analysis. It is recommended that the teacher training course is implemented

with use of pedagogical mentor, who need to have priority and need first to be trained. In order to support the pedagogical development in the TVET institutions it is recommended that two pedagogical mentors are placed in each TVET institution. Using a modular approach for a pedagogical teacher training course will imply that teachers will terminate each module with a pedagogical project in terms of planning of teaching and workshop training, development of teaching and learning materials, development of curricula and lesson plans etc. These tasks shall be practiced at their home institutions and guided and monitored by the institution's pedagogical mentor(s). Over time, it is recommended that the pedagogical teacher training course is made compulsory for TVET institutions who wish to obtain accreditation by the accrediting authorities. An overall capacity development plan needs to be developed which shall form the basis for the construction of a TVET teacher training college. It is recommended that the construction, management and operational funding are to be a joint venture between line ministries involved in TVET delivery. Apart from the delivery of teacher training courses, the TVET teacher training college may by time be a center for teaching and learning material development as well as be responsible for training of external assessors and if needed also training of industrial supervisors.

## **7.5 Establishing local advisory boards at institutional level.**

With the enactment of Employment and Skills Development Law the Myanmar Government to have an opportunity to create a unified TVET system covering TVET, as well as addressing skills development for disadvantaged and unemployed. A unified TVET system needs to base on the competence education and training principles. The law is mandating this, never the less it is foreseen that turning the existing and rather fragmented TVET system into competence education and training principles will require structural changes at institutional level as well as capacity building for teachers and instructors will be required. The new Skill Development Body may take the opportunity (as recommended by the recent GIZ report<sup>26</sup>) to review of skill standards and adapt them to Myanmar conditions. A skill standard manual should be developed outlining industry leadership of this process and the roles and responsibilities of the facilitators of that process. Procedures should be established for the packaging of the skill standards into technical and vocational qualifications. These should include any policies for the inclusion in qualifications of generic and "soft" skills. The skill standards will need to describe nationally agreed competencies within an industry. Workers and students may be assessed in the workplace, if possible, or in simulated settings in training institutions against the performance criteria specified for the skill standards. Local companies should be able select and choose appropriate skill standards and make them available to workers to suit the local labor market.

Like the central body with its sub committees, training institutions should be mandated to establish local advisory boards. Local advisory boards should consist of employers and representatives from the local labor market thus advising training institution of skills needs and content of training required for the local industry.

The local advisory board and their network of employers shall assist the training institutions in the appointment of external industrial assessors used for assessment of students attending short courses. Furthermore, the local advisory boards will assist the training institution in the identification of employment possibilities especially targeted at students who have attended skills capacity development through short courses. This shall be done at an employment exchange office to be established at the training institutions.

The objectives of the establishment of local advisory committees are:

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<sup>26</sup> Analysis of Capacity Development Needs of the National Skill Standards Authority, GIZ, 2012

- To establish a functional system for quality assurance in the local TVET delivery system through advise on skill standard and curriculum development.
- To strengthen the TVET programs in terms of quality and quantity as per the local labor market demand.
- To link employment of TVET graduates with the local labor market.
- To assess the skills requirements in the local labor market.
- To strengthen continuous and initial technical vocational education and training
- To strengthen public private partnerships in local labor market environment

Terms of reference for the local advisory boards may be as follows:

1. To advise the TVET institution on the establishment of public private partnerships projects.
2. To monitor the development of TVET in local labor market environment and advise the management of the training institution on future development of TVET delivery.
3. To assess occupational outlook for each sector in terms of minimum wages and employment opportunities in the local labor market.
4. To advice the management of the training institute on new training areas within sectors represented in local advisory board.
5. To advice the management of the training institute on liaison with overseas stakeholders such as private companies or training providers which are operating within TVET.
6. To advise the management of the training institute on future investments in local TVET delivery.
7. To advise the management of training institute on cooperation with non-governmental organizations.
8. To advise the management of the training institute on the strengthening of a future Apprenticeship Training Program.
9. To advise the local authorities on future trends and employment possibilities within the local labor market.
10. To recommend individuals as external industrial assessors.

#### **7.5.1 Recommendations for activities establishing local advisory boards at institutional level over the immediate term**

Over the immediate term it is that selected pilot schools under e.g. the ADB pilot project: “Skills development for inclusive growth” shall be mandated to establish local advisory boards who shall guide and assist the management of the training institutions in areas of growth in local labor market, give recommendations for the introduction of new courses as well as review and propose changes existing courses so the fit the local labor market demands. As the local advisory boards are established the selected pilot institutions shall establish a local labor market secretariat, which also will serve as a job exchange unit, thus ensuring that students passing short courses are employed quickly after termination of training. A system which has proven records of employment of youth will also contribute to increased access as youth as well as employers will find TVET and skills development more attractive.

#### **7.5.2 Recommendations for activities establishing local advisory boards at institutional level over the short to medium term**

Over the short to medium term the establishment of local advisory boards, institutional labor market secretariats as well as job exchange units shall rolled out and introduced in training institutions. The functions and the operations of the labor market secretariat may be adjusted depending from lessons learnt from the pilot. The accrediting body may consider that operational local advisory boards are compulsory for accreditation. The introduction of local advisory boards and their institutional sub functions shall eventually to greater institutional autonomy of the training institutions. In order to create an efficient TVET system in Myanmar with close links to labor market partners the training institutions need to have the autonomy and mandate to establish income generating activities in terms of short course delivery, consulting services and other services which serve the local labor market. The local advisory boards will also over the medium term provide easier access for the placement of apprentices under a future apprenticeship system



## 8. Moving forward

At this stage it is difficult to have a definite conclusion or to develop a road map to guide future activities for TVET. The Phase 2 of the CESR process was supposed to provide an in-depth assessment of the TVET and skills subsector, and together with government and stakeholders identify areas for reform.

The outcomes and perspective of the CESR processes led by the ADB technical assistance are reflected in the enclosed report. This analysis is based on consultations with government, field visits, reference to policy documents and a number of presentations, as well as workshops. Much of the emphasis within the current report has been driven by consultants who attempted to take on board the views of government<sup>27</sup>.

In parallel with the CESR process the President established in October 2013, a distinct Education Promotion Implementation Committee (EPIC) to review various subsectors/dimensions of education (including TVET), with a focus on the implementation of "quick win" initiatives. This involved the establishment of 18 separate working groups, one of whom covered TVET. The CESR and EPIC have since strengthened dialogue and cooperation (e.g., CESR findings have directly helped inform EPIC's recommendations), though detailed linkages are still in the process of taking shape." One of the main outcomes of this government-led process in the field of TVET was the production of a draft policy for TVET, presented at a National conference in January. The conference was basically a policy dialogue on various topics within TVET and concluded with consensus among the participants, which is referred in the conference summary report.<sup>28</sup>

From an outsiders perspective the two processes outlined above could be viewed as a duplication of effort. This may be true, but it has to be remembered that the ultimate decision on what happens in the TVET subsector is the responsibility of the government and national stake-holders, as opposed to donors or external experts. Nevertheless, many of the issues raised in the government's draft TVET policy are reflected in the current report, as well as the earlier CESR Phase 1 report. The evidence would suggest that the CESR process has fed into the government draft TVET plan, either through the process of join discussions or from the findings contained in the different CESR reports report. Whatever the process, the end result has been the development of a government TVET draft policy that will provide the basis for future dialogue and consultation.

The question that we must ask is what to do next? Clearly, there is a need to have more consultation over the contents of the draft TVET plan. The government is leading this process and initial consultation began with a national conference, presenting the draft TVET policy in late January, 2014. This process is expected to continue and result in the confirmation of the government's plan for TVET and a move onto a costing phase.

From the perspective of the CESR Phase 2 process we can look objectively at the draft TVET policy, with a view to identifying how reforms can be implemented, as well as what are the management and governance structures, and funding mechanisms. Many of the

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<sup>27</sup> The experts working on this report attempted to consult with government department and counterparts on a continual basis. Sometimes this process was successful and other-times it was not. For instance, the policy expert had successful meeting meetings with senior government counterparts in Naypyitaw. However, three attempts were made by the same expert to meet with the policy team from government and each time the meetings were cancelled at the last minute

<sup>28</sup> The conference was held in Naypyidaw on 22 of January 2014, the National TVET Conference was principally funded by ADB and Australia under TA 8187, in collaboration with GIZ, SDC and UNESCO. A summary report on conference proceedings was kindly prepared by UNESCO and submitted to MOE on 10 March 2014.

issues surrounding implementation and funding have yet to be tackled, particularly in relation to the TVET subsector.

Figure 9 outlines the government's proposed strategy for TVET and the implementation issues that need to be taken on board, particularly around the area of access and quality

**Figure 9: Outline of the proposed TVET policy and implementation issues that must be tackled**

<b>Contents of TVET policy</b>	<b>Implementation issues that need to be tackled</b>
1. TVET produce highly qualified technicians and skills workers for the labor market	<ul style="list-style-type: none"> <li>• The occupational areas should reflect government priorities and the needs of the market</li> <li>• It would be helpful to identify how many people will be trained over the next five years and at what levels?</li> </ul>
2. Open vocational schools with fair admission procedures	<ul style="list-style-type: none"> <li>• Appropriate admissions procedures will need to be developed at the central level</li> <li>• It will be important that admission procedures take on board gender and those who are disadvantaged</li> </ul>
3. Improved access to TVET schools across the country, provided that trainees have the appropriate qualifications	<ul style="list-style-type: none"> <li>• Pathways are established between secondary education and the TVET subsector</li> <li>• Funding will have to be provided to ensure improved access</li> </ul>
4. Support improved autonomy of TVET providers	<ul style="list-style-type: none"> <li>• This measure should be reflected in the recent Education Act</li> </ul>
5. Allow TVET institutions to raise their own funds	<ul style="list-style-type: none"> <li>• TVET providers should be supported to develop improved plans and be able to identify their potential market</li> <li>• Appropriate mechanisms of accountability should be introduced</li> </ul>
6. Allow TVET institutions to collaborate with foreign and domestic organizations in education issues	<ul style="list-style-type: none"> <li>• This process must be facilitated by the TVET council.</li> </ul>
7. Adopt more reasonable rates for the appointment of teaching and other staff	<ul style="list-style-type: none"> <li>• Job descriptions will need to be developed and performance based pay introduced</li> <li>• Reforms will need to take place with civil service pay and conditions</li> </ul>
8. Establish private sector	<ul style="list-style-type: none"> <li>• This measure should be reflected in the recent Education Act</li> </ul>
9. Open short-term courses at public and private institutions	<ul style="list-style-type: none"> <li>• Need to investigate whether such providers can access the skills levy fund</li> </ul>
10. Supply modern teaching aids, workshops and laboratory equipment for public institutions	<ul style="list-style-type: none"> <li>• An audit will need to take place of capital needs in the light of potential student numbers</li> </ul>
11. To provide better infrastructure and conducive physical environment	<ul style="list-style-type: none"> <li>• See above</li> </ul>
12. Nurture students as professionals who esteem academic and professional ethics	<ul style="list-style-type: none"> <li>• Need to establish career guidance and counselling for students</li> </ul>

In terms of increasing access to TVET, the government is aware that reform processes concerning matriculation system, training provider efficiency, assessment and certification procedures need to be initiated. TVET MoST and Mol will delivery of competency-based short courses, targeted at the unemployed, the disadvantaged as well as skills upgrading for those already in employment. Moving from a traditional training delivery system to a competency-based education and training system provide challenges for the implementing line ministries. However, both MoST as well as Mol are well aware that skills standards, which are the base bottom-line in any competency-based education and training system, must be developed in close collaboration with the industry. This collaboration will improve access to TVET since employers will be motivated to upgrade the skills of their employees - as they are responsible for quality assurance of short courses that are delivered.

Another proposed strategy to improve access is to open up for an upper secondary TVET path. this need to be negotiated and planned with MoE and other sector specific line ministries, as it foreseen that the impact in terms of increased enrolment of TVET students in GTHS will rise, as students who may not have the academic requirements for continuing in the normal upper secondary school will pursue an upper secondary TVET pathway. This system is well known in Scandinavian countries where it has been implemented with success.

The division of the upper secondary school system into a TVET and academic streams will require strong guidance and counseling services for middle secondary students as well as students who are pursuing a skilled education. Both Mol and Most will work towards an institutionalized guidance and counseling system to be operational in their training institutions. The combination of an upper secondary TVET completion certificate and an industrial attachment in a relevant industry will enable students to possess an upper secondary TVET certificate plus a qualification level 4 in 3½ years. This will increase young student's employability and also allow them to pursue higher TVET education.

For the unemployed and disadvantaged, access to an upper secondary TVET stream should be based on the recognition of prior learning and completion of bridging courses. The former will ensure that students who basically come from the labor market are equipped with the appropriate theoretical knowledge required for completing upper secondary TVET. Special initiatives for the rural population will need to be developed, ensuring that rural youth has equal access to education and training; this may be done through mobile training delivery as practiced by the Ministry of Cooperatives. In future, an upper secondary TVET stream may be an alternating model shifting between school based education and training and industrial attachment. This will require a well-developed monitoring and evaluation system provided by training providers who are delivering an upper secondary TVET streams; at present such system is not yet in place.

Another recommended initiative for increasing access is prolong opening hours for government training providers, ensuring that training equipment and facilities is utilized the most effective and efficient way. Prolonging opening hours combined with the delivery of competency-based short courses in urban areas may increase access to TVET drastically.

Moving towards reforms mentioned above will require development of an national accepted quality assurance system as well as guidelines for a training provider quality management system. A quality assurance system shall form the basis for a national and unified accreditation and certification system. Accreditation of providers is seen as a priority as accreditation will urge private training providers to provide assessment and certification recognized by the national accrediting body; that shall in future be a national accreditation board. Accreditation requirements shall stipulate that assessment of students shall be done with third party assessors recruited from the local labor market. At the same-time teacher and instructors must be trained to a national recognized vocational

teacher training program. In order to maintain a national recognized accreditation program the accrediting body, that be regional or national, must develop and maintain an audit and monitoring service, thus ensuring, through audit, that TVET institutions fulfill the requirements for accreditation. However, the accreditation system needs only to focus on the accreditation of delivery of programs and not accreditation of the institution.

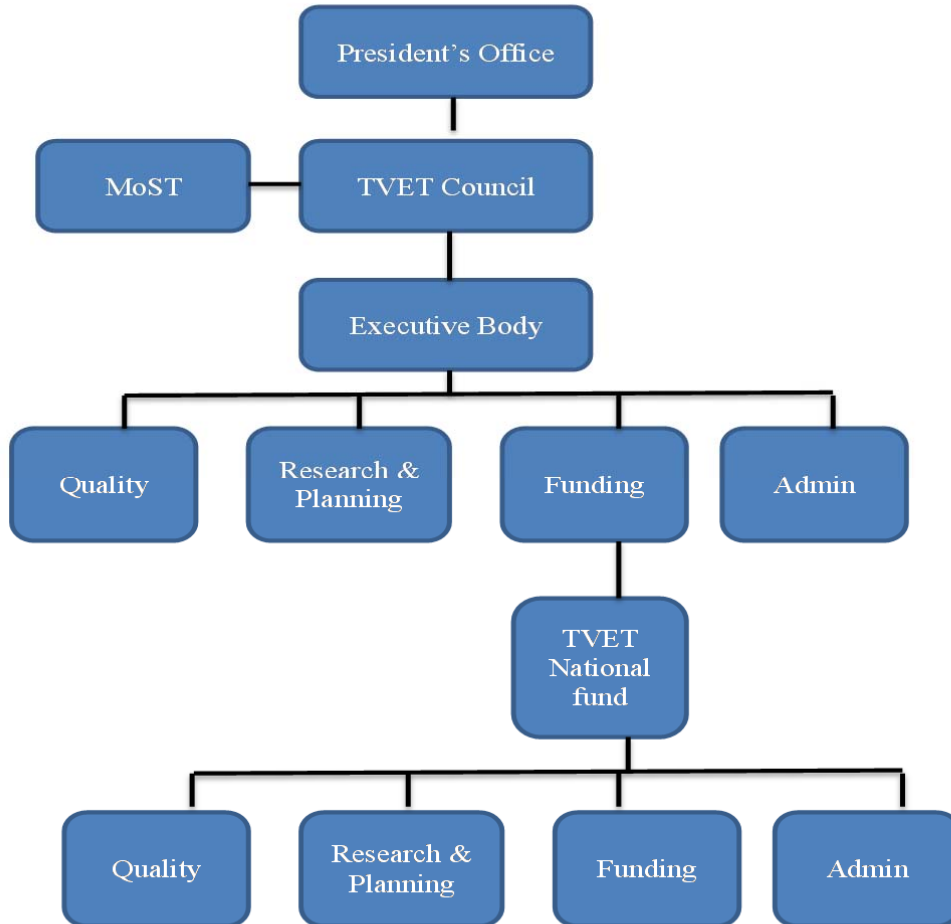
Development of a quality assurance and guidelines for a quality management system is a long process and should take its point of departure in the existing practices and regulations. As it is assumed that the development of an accreditation system based on a solid quality assurance system it is proposed that line ministries involved in TVET, as soon as possible start to collect information on existing practices on quality management. In parallel with development of a national recognized accreditation system, it is recommended to develop a solid TVET provider registration system. To be registered in a proposed TVET MIS database shall be one condition amongst others, for accreditation.

Besides the specific issues surrounding access and quality, there is a need for the government to think carefully about management and governance, and also how the implementation will be funded. The Employment and Skills Development provides some legal guidance on so-called “skills development” or “non-formal TVET” and provides an important legal mandate for NSSA and for development of a new skill standard system (one of the critical 4 pillars for a new high-quality, demand-driven TVET system, as outlined in section 7). However, as outlined earlier, there is a need to develop the regulations for implementation, while also considering possible refinements to the Law to ensure alignment with the forthcoming TVET Law.

Another important issue for skills development is the setting-up of a sustainable funding mechanism. Currently, the Employment and Skills Development Law proposes to implement a levy on employers. It is good that those who benefit from training also pay (i.e. the employers). Nevertheless, there still a number of issues that will need to be resolved, such as which employers contribute towards the levy and how will the fund be managed and dispersed. Once these questions have been answered it will be possible to think about implementation. Unless these issues are tackled there is a danger that the fund will not be sustainable. A skills strategy will also need to be developed to guide implementation activities at MoLES, especially around skills development in the workplace.

For the subsector of TVET the issues of management and governance, as well as funding reform, have yet to be discussed. Without adequate structures, funding mechanisms or implementation structures, it will be difficult to tackle how to improve access or improve quality. To push such discussion forward, a workshop during CESR Phase 2 engaged the CESR TVET Team in discussion around the possible management and governance structures for TVET. This workshop yielded a possible structure shown in Figure 10, which (it should be emphasized) is very initial and intended to generate further discussion. Under that structure, the TVET Council would coordinate activities and ensure synergies across the multiple line Ministries involved in the delivery of TVET. However, in order for the TVET Council to carry out its mandate, strong political backing would be needed from the President's office. At the same-time it would be necessary to establish an executive secretariat to support implementation of TVET policy across ministries. The type of directorates and their functions would need to be decided through consultation. However, this could be expected to cover: quality assurance, planning, funding and administration.

Figure 10: Possible Management and Governance Structures for TVET



Given the emphasis towards decentralization it might also be a good idea to set-up a number of regional TVET councils. Essentially, these regional councils could help coordinate implementation and be responsible for liaison between providers and the TVET council. The precise reporting lines and responsibilities would need to be worked out; supportive legislation would also need to be developed and funding mechanism determined.

Similarly, setting-up a national TVET fund (with contributions from line ministries, employers and donors) may prove a viable and attractive alternative. However, the finer details of such a fund would need to be worked out.

The degree to which developments in the formal TVET subsector will be aligned to those in the skills and workforce development sector is open to debate. Despite the apparent existence of these two parallel systems, the key to moving towards a unified system is in the regulatory and quality framework. As outlined earlier in this report a national regulatory framework can be achieved through the development of appropriate directives in the Employment and Skills Development Law, and adherence to these directives in the proposed new TVET Act. Subsequently, there must be cooperation between the different Ministries, including MoLES, MoST, the Mol and other line Ministries to help ensure compliance with the regulatory framework. A final strategy to help support the move towards synergies is to allow TVET providers, as well as enterprises, to access the skills development levy fund. Once again the directives for the Employment and Skills Development Law must specify how the TVET providers can access such funds. In

addition, funding modalities would need to be developed, outlining how providers could access such funds and under what conditions.

## Concluding Thoughts

Work under Phase 2 of the CESR and the contents of this Technical Annex have attempted to provide evidence and some initial thinking on the road ahead for TVET in Myanmar. It is hoped that the content herein can support further dialogue on legislation, policy, and planning for the TVET subsector. Such dialogue should be led by the government, engaging with industry and other local stakeholders, with international partners ready to provide support as needed. At the same-time, it is clear that change cannot be achieved overnight, and it will take a number of years to develop a system that delivers quality, improves access, and is sustainable over the longer term. At this stage, a most urgent priority is to **“get the system right”** from the start—by contrast, rushing to expand TVET without a solid system could lead to a costly expansion of low-quality TVET, and pose a long-term setback to construction of a strong national TVET system.

In short, the challenges are numerous and apparent. Solutions will mean making careful decisions and adopting a more strategic and longer-term approach to reform (prioritizing foundation building above short-term gains, and being strategic in prioritizing quick wins that put in place longer-term foundation stones). At the same time, Myanmar shows tremendous promise, and recent steps taken by the government provide a critical launch pad for further government cooperation with an array of partners and stakeholders to lay a strong foundation for Myanmar’s future TVET system.