



# Technical Assistance Consultant's Report

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## Republic of the Union of Myanmar: Support for Education Sector Planning (Cofinanced by the Government of Australia)

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For the Ministry of Education

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Asian Development Bank





**Myanmar Comprehensive Education Sector Review (CESR)  
Phase 2**

**ANALYSIS OF THE IMPACT OF ASEAN INTEGRATION ON LABOR  
MARKETS AND SKILL NEEDS IN MYANMAR**

*Final Version, 25 October 2014*

## Foreword

This report was prepared as part of Myanmar's 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. Under the umbrella of the CESR, the analysis reported herein was principally funded by Asian Development Bank (ADB) technical assistance TA 8187-MYA: Support for Education Sector Planning, cofinanced by the Government of Australia (represented by AusAID).

This Technical Annex is intended to provide an early-stage input to CESR Phase 2 (In-Depth Analysis). It is based principally on a literature review conducted by TA 8187 consultant Paul Brady, in discussion with relevant members of the CESR Team as well as ADB staff and consultants supporting post-primary education analysis under CESR Phase 2. It also builds on and incorporates findings of the *CESR Phase 1 Technical Annex on Labor Market analysis: the Demand for Higher Education and TVET Graduates*, drafted by Paul Brady in cooperation with the CESR Team, which can be downloaded via the links below:

<http://www.cesrmm.org/index.php/en/documents/category/22-technical-and-vocational-educationtraining>

<http://www.adb.org/projects/documents/cesr-p1-rapid-assessment-annex-labor-market-analysis-demand-higher-education-tvet-graduates-tacr>

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## ACRONYMS

<b>ADB</b>	Asian Development Bank
<b>AEC</b>	ASEAN Economic Community
<b>AMS</b>	ASEAN Member State
<b>ASEAN</b>	Association of South East Asian Nations
<b>AUN</b>	ASEAN University Network
<b>CBT</b>	Competency based training
<b>HE</b>	Higher education
<b>LMIS</b>	Labor market information system
<b>MRA</b>	Mutual Recognition Agreement
<b>NQF</b>	National Qualifications Framework
<b>PRC</b>	People's Republic of China
<b>TVET</b>	Technical and Vocational Education and Training

### Common Abbreviations

<b>Km.</b>	kilometre
<b>FY</b>	Fiscal year

\$ refers in every instance to \$US

## Currency Conversion

\$1 = 969 Kyats

## Contents

<b>Content</b>	<b>Page</b>
<b>Foreword</b>	ii
<b>Acronyms</b>	iii
<b>Executive Summary</b>	v
<b>A. ASEAN INTEGRATION</b>	1
1. Introduction	1
2. Overview of the AEC	2
3. Trade in Services	3
4. ASEAN Cooperation in the Transport Sector	5
5. Connectivity	6
<b>B. THE IMPACT OF THE AEC ON THE MYANMAR LABOR MARKET</b>	7
1. Impact of the AEC on the Demand for Labor	7
2. Impact of the AEC on the Supply and Demand for Labor	9
3. Basing the Training System on the Labor Market	10
<b>C. CONCLUSIONS</b>	11

## EXECUTIVE SUMMARY

- i. Connectivity largely encapsulates the economic and social changes that will result from the formation of the ASEAN Economic Community (AEC) in 2015. Connectivity is about transport networks and the resulting free flow of expertise, goods and services across ASEAN and those other regional states with free trade agreements with ASEAN.
- ii. Achieving lower transport and handling costs is fundamental in being competitive in intra-regional and global trade thus achieving the economic growth anticipated under the AEC. A large skilled workforce will be required for construction activity especially civil construction including ports, road and rail networks to drive down the costs of transportation and handling.
- iii. The AEC will see significant growth in manufacturing activity but this will also be dependent upon the existence of substantial transport infrastructure. A significant workforce will be required for manufacturing activity in Myanmar.
- iv. Myanmar has significant potential in being a supplier of agricultural produce to the rest of the region. It will be important therefore to have an adequately skilled agricultural workforce to be able to effectively use new technologies and practices.
- v. The easing of all kinds of restrictions under the AEC will impact on all service industries including tourism and financial services. The skilled workforce in the tourism sector will need to grow as travel becomes easier under the AEC and it will need to perform to international standards.
- vi. The AEC will affect both the supply and demand for labor. Mutual recognition arrangements will enable recognized skilled workforce members to find employment in all AMSs. This will lead to a brain drain as well as a brain gain depending on what remuneration is offered.
- vii. Quantitative as well as qualitative changes to workforce requirements will arise from the economic growth under the AEC. Industries that expand because of their competitiveness in intra-regional and global trade will require more skilled workers. Conversely the less competitive industries will decline and need less skilled workers. At the same time there is likely to be a change in the performance required in all jobs as products and services need to meet international standards.
- viii. Greater correlation between the labor market and the training sector will be required under the AEC. An effective Labor Market Information System (LMIS) needs to be in place that provides accessible up to date information to the public and training systems. Mechanisms need to be in place in the training system to rapidly change to meet shifts in demand both in qualitative and quantitative parameters.





## A. ASEAN INTEGRATION

### 1. Introduction

1. The Association of Southeast Asian Nations (ASEAN) was established in 1967 with membership of Indonesia, Malaysia, Philippines, Singapore and Thailand with its broad goals including regional peace and stability as well as accelerating economic growth, social progress and cultural development in the region.<sup>1</sup> Since then, ASEAN membership stands at ten nations including Myanmar which joined in 1997. There are also meetings with other regional nations reflecting an open regionalism especially in regard to trade. ASEAN +3 is ASEAN, the People's Republic of China (PRC), Republic of Korea and Japan. ASEAN+6 is ASEAN+3 and Australia, New Zealand and India.

2. ASEAN has substantial diversity. A large part of the region is on the one land mass of South East Asia allowing land transport to occur between all nations. Three member states (two of which are multi island states) however are separated by water ways from the South East Asian mainland. Membership includes poor as well as one very wealthy nation (Singapore). It includes nations that have achieved rapid economic development (Indonesia, Malaysia, Singapore, and Thailand) and those such as the Philippines and Myanmar that have underperformed economically. There are also substantial cultural, linguistic and political differences between all states.

3. The focus of ASEAN has been cooperation between a set of states with the aim of fostering economic development. As such it has been a loose rather than a tight arrangement as otherwise demonstrated in the European Union (EU). According to an ADB report, ASEAN diplomacy and cooperation have been characterized by caution, pragmatism, and consensus-based decision-making.<sup>2</sup> As such ASEAN works in areas of common agreement between all the member nations.

4. Progress towards economic cooperation was initially slow. The first concrete although minimal measures in ASEAN were formal agreements that began after 1976. One agreement was the ASEAN Preferential Trading Agreement (APTA). Stronger economic links however were fostered from 1992 when the ASEAN Free Trade Area (AFTA) was

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<sup>1</sup> ASEAN Secretariat. 2011. *ASEAN Economic Community Factbook*. Jakarta: ASEAN Secretariat.

<sup>2</sup> ADB. 2010. *ASEAN Economic Integration: Features, Fulfillments, Failures and the Future*. ADB Working Paper Series on Regional Economic Integration no. 69. Manila.

announced. A regional objective became “free trade” albeit allowing for tariffs up to 5% and the exclusion of product sensitivities in member states to be achieved within a 15 year timeframe. In 2003, ASEAN committed itself to the creation of an ASEAN Community by 2020 based on the three pillars of the ASEAN Economic Community (AEC), the ASEAN Security Community (ASC), and the ASEAN Socio-Cultural Community (ASCC). In 2007 achievement of an ASEAN community was accelerated to 2015. The remainder of this paper will deal with the AEC and what is agreed to happen. There are of course many challenges to full implementation and it is expected that ASEAN will demonstrate pragmatism and flexibility in achieving goals albeit not necessarily within agreed timelines.

## **2. Overview of the AEC**

5. Impetus for the AEC was the creation global creation of free trade areas (FTAs), the limitations to ASEAN integration of member states entering into FTAs with non ASEAN states and lessons learned about cooperation during the Asian financial crisis.<sup>3</sup> ASEAN member states (AMS) realized that there were substantial benefits to their economic success by achieving ASEAN economic integration. The key defining characteristics of the AEC are: a single market and production base; a highly competitive economic region; a region of equitable economic development; and, a region fully integrated into the global economy (footnote 1). An AEC Blueprint was developed supported by an AEC Scorecard to monitor achievement. In all there are 17 core elements along with 176 primary activities to be undertaken.

6. A single market and production base is being achieved ultimately to enhance the capacity of ASEAN to serve as a global production center and becoming part of the global chain of supply. This base comprises the following core elements: free flow of goods; free flow of services; free flow of investment; freer flow of capital; and free flow of skilled labor. Industrial sectors included in the single market and production base comprise the following key areas: agro-based products, air travel (air transport), automotive, e-ASEAN, electronics, fisheries, healthcare, rubber based products, textiles and apparel, tourism, wood-based products and logistics as well as the food, agriculture and forestry sectors. Achieving this level of integration includes: the elimination of tariffs and the gradual phasing out of non-tariff barriers; creating efficiencies in processing time for trade through implementing an ASEAN

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<sup>3</sup> Guerrero, R. 2010. Regional integration: the ASEAN vision in 2020. IFC Bulletin No. 32. <http://www.bis.org/ifc/publ/ifcb32c.pdf> (accessed 17<sup>th</sup> September 2013)

single window (ASW); having effective transport connectivity; investment liberalization; and, liberalization in services.

7. Success in creating the AEC is also heavily dependent on achieving equity in the development of all AMSs. A range of activities are planned especially around the development of small to medium enterprises in the less developed states such as Myanmar, Cambodia, Laos and Vietnam. For Myanmar there are substantial challenges as it emerges from isolation in achieving requirements under the AEC. Nonetheless the AEC will enable Myanmar to quickly grow the industries that it has a comparative advantage in. This will include resources, agriculture, tourism and manufacturing.

### **3. Trade in Services**

8. One of the parameters of the AEC is the ASEAN Framework Agreement on Services (AFAS). This covers the free flow across ASEAN of a wide range of services sectors including business services, professional services, construction, distribution, education, environmental services, healthcare, maritime transport, telecommunications, and tourism (footnote 1).

9. A key agreement is mutual recognition of expertise under mutual recognition agreements (MRAs) whereby each AMS will recognize the qualifications, certifications or licenses of other states for the purposes of licensing or certification of service providers. To date most MRAs primarily deal with occupational levels generally achieved through higher education. Key agreements are: engineering services, nursing services, architectural services, surveying qualifications, accountancy services, medical practitioners and dental practitioners. An exception to the previous list is an MRA for tourism professionals.

10. MRAs are requiring each member state to address what amount to external benchmarks. Each AMS has historically undertaken its own path towards qualifications. The approach already adopted however may not coincide with requirements of an MRA. Some countries such as Singapore are following international best practice in both higher education and TVET. Higher education qualifications in some ASEAN countries already have international recognition. For example engineering qualifications of Malaysia and Singapore are recognized in Australia, the US and Australia. Consequently MRAs can be expected to drive substantial change in the current training provision in higher education and TVET in countries such as Myanmar. For HE, this is likely to be an emphasis on the inputs of

training while for TVET the emphasis will be outcomes. Given the existing high standards in countries such as Singapore and Malaysia, there will be substantial challenges for Myanmar.

11. The requirements of MRAs are heavily influenced by labor market needs. While higher education will be driven to some degree by the inputs provided, it will also be driven to a large extent by the outcomes that are achieved. For example, an engineering graduate will be expected to be able to perform specific functions as required in the workplace. For TVET, achievement of the ability to perform specific tasks as required in workplaces will be paramount. International national qualification frameworks (NQF) and national qualifications have been important drivers of TVET outcome driven training. An NQF is simply a means to define qualifications in terms of broad functional outcomes in terms of responsibility, psychomotor ability and cognitive ability. National qualifications are focused on specific occupations and are based on the NQF and simply specify the performance needed to achieve the qualification. Generally the performance required will be linked to labor market needs.

12. An ultimate goal will be a free flow of skilled labor throughout ASEAN members and to a lesser degree to nations which have signed FTAs with ASEAN. This will of course lead to both a loss as well as a gain in a skilled workforce within any given country.<sup>4</sup> This requires a strong level of equivalency in qualifications. There are a range of initiatives to bring this about. At the level of universities, the ASEAN Quality Assurance Network has been established to define and improve quality in higher education overall.<sup>5</sup> The ASEAN University Network (AUN) members work towards increasing the quality in specific institutions which would then become lead institutions in improving quality overall. One of the drivers of quality improvement is the ASEAN Credit Transfer System to provide mobility for both students and staff within the region.

13. NQFs and Quality frameworks are generally seen as the key mechanisms to achieve international mobility for graduates of the TVET systems. Some countries such as Singapore, Malaysia and the Philippines are well advanced in introducing NQFs and quality frameworks. However there are variations in the NQFs of each AMS requiring the

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<sup>4</sup> Chia, S. Y. 2011. Free Flow of Skilled Labor in the AEC. In Urata, S. and M. Okabe (eds.), *Toward a Competitive ASEAN Single Market: Sectoral Analysis*. ERIA Research Project Report 2010-03, pp.205-279. Jakarta: ERIA.

<sup>5</sup> Fahmi, Z. 2013. EQA in ASEAN. International Conference on Innovation in External Quality Assessment: Chain of Quality, Bangkok, 13-14/2/2013.

[http://www.onesqa.or.th/en/events/APQN13Feb13/EQA\\_in\\_ASEAN\\_by\\_Prof\\_Zita\\_Mohd\\_Fahmi.pdf](http://www.onesqa.or.th/en/events/APQN13Feb13/EQA_in_ASEAN_by_Prof_Zita_Mohd_Fahmi.pdf) (accessed (October 2013)

development of a common reference framework otherwise called a regional qualification framework (RQF). To date an RQF has not been completed but effort that is still ongoing. The need for labor mobility beyond the AMS is recognized in the East-Asia Summit on TVET Quality Assurance Framework (EAS TVET QAF). The objectives of the EAS TVET QAF are: to enable countries to promote and monitor the improvement of their quality assurance systems; facilitate cooperation and mutual understanding between member countries; and support other initiatives within and across the region that enhance connectivity, integration, education and labour.<sup>6</sup>

#### **4. ASEAN Cooperation in the Transport Sector**

14. Agreements in the transport aim to achieve an efficient and integrated transport system that supports the realisation of AFTA and integration with the global economy. Agreements seek to change processes in each AMS to ensure a seamless movement of people and goods in minimum time. Agreements have major implications for infrastructure development to facilitate intermodal transport with cost efficiencies. Key projects to achieve these efficiencies are ports development, rail and road construction.

15. Substantial growth in the economies of the PRC, India and ASEAN has created substantial demand for rapid movement of goods. A key ASEAN project is the ASEAN Highway Network. The goal is by 2020 there will be 38 routes covering 38,400 km of high quality roads.<sup>7</sup> Myanmar requires substantial infrastructure development such as roads, rail and ports to enable Myanmar to fully exploit its geographical position as a land bridge between South Asia, the PRC, and Southeast Asia. The Greater Mekong Subregion Program (GMS) constitutes an agreement between a number of countries including Myanmar for cooperation in a range of areas especially roads. Three road corridors are proposed: North to South (North Myanmar through the PRC); East to West (Mawlamyine, Myanmar through to Vietnamese coastal cities ending at Da Nang, Vietnam); and Southern (Dawei, Myanmar through to Qui Nhon, Vietnam).

16. In Myanmar, three Special Economic Zones (SEZ) with deep water seaports are planned or are under development to substantially transform transportation in the region.

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<sup>6</sup> Paryono. 2013. Mapping national and regional TVET initiatives in Southeast Asia and beyond in response to students and labor mobility. In: TVET@Asia, issue 1, 1-8. [http://www.tvet-online.asia/issue1/paryono\\_tvete1.pdf](http://www.tvet-online.asia/issue1/paryono_tvete1.pdf) (accessed 1.10.2013).

<sup>7</sup> Umezaki, S., 2012. Building the ASEAN Economic Community: Challenges and Opportunities for Myanmar. In Hank Lim and Yasuhiro Yamada ed. *Economic Reforms in Myanmar: Pathways and Prospects. BRC Research Report No.10*. Bangkok: IDE-JETRO.

One is at Dawei which with the Southern Corridor will enable goods to go to Thailand without the need for moving through the Malacca Straits.<sup>8</sup> Similarly the facility at Kyauk Phyu will allow goods to be directly transported to the PRC. In addition, pipelines are under construction to allow the movement of Middle Eastern oil and gas from the Shwe Gas Project in Myanmar directly through to the PRC also without movement through the Malacca Straits. The other SEZ is at Thilawa near Yangon. While all are major construction projects in their own right, they also require the completion of substantial roads to be fully effective.

17. The major rail project is the Singapore-Kunming Rail Link (SKRL) which is proposed to have two lines connecting Bangkok to Kunming, an eastern line through Cambodia and Vietnam, with a spur line between Lao PDR and Vietnam, and a western line through Myanmar. Designed to be completed in 2020, there are still many linkages to be planned and completed. One such linkage yet to be decided on is between Myanmar and Thailand.

## **5. Connectivity**

18. The word “connectivity” largely summarizes what the AEC will accomplish. All AMSs started out as economically self-contained states, with a range of barriers in place directed at goods, services and people entering the country. The AEC now aims at sweeping aside these barriers in regard to AMSs and those countries with FTAs with ASEAN. This connectivity will involve the free movement of people, goods and services. Implicit in this connectivity, will be greater economic growth but also substantial competition in the supply of skilled labor, services and goods. Each country will hold a competitive advantage in specific skilled labor, services and goods. Consequently activity in any given country will increase in those sectors of comparative advantage and conversely decline in sectors where the country is not competitive.

19. Connectivity will substantially impact on the labor and the training market. A key requirement will be English simply because it constitutes the only common foreign language found in the ASEAN region. Moreover English is the most common language used in international trade. Benchmarks for expertise in many occupations will rise in many countries. If a Singaporean firm establishes a business in Myanmar, they may only employ Myanmar citizens who possess the minimum expertise that they deem necessary. Increasingly these skill specifications will be articulated in national qualifications (for the

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<sup>8</sup> Aung, W and Kudo, T. 2012. Chapter 6: Newly Emerging Industrial Development Nodes in Myanmar. In Masami Ishida ed. *Ports, Roads, Economic Zones Along Economic Corridors in Emerging Economic Corridors in the Mekong Region. BRC Research Report No. 8*. Bangkok: Bangkok Research Centre, IDE-JETRO.

TVET subsector) and relevant documentation in the ASEAN Quality Assurance Network (for the HE subsector). Connectivity will also lead to increased activity in specific economic sectors resulting in an increased need for more skilled and unskilled workers in those sectors.

## **B. THE IMPACT OF THE AEC ON THE MYANMAR LABOR MARKET**

### **1. Impact of the AEC on the Demand for Labor**

20. Construction activity will substantially expand under the AEC. Key areas will be roads, port facilities, industrial facilities, hotels and railways. Transport connectivity will be an important driver of developments as Myanmar fulfills its obligations. Construction activity will be the precursor of expanded activity in other sectors which will rely on good road networks, port facilities and buildings. The major effort will be in civil construction calling for a range of skilled personnel (such as civil engineers, technicians and trades) as well as unskilled to semi-skilled labor. The building sector will also expand to a lesser extent in building industrial facilities and hotels. There will be demand for highly skilled workers in all facets of building activity.

21. Manufacturing will expand as the consequence of having lower costs of production than the PRC and AMSs. Expansion however will be tempered by the speed of development of transport connectivity and the degree to which the Myanmar government provides adequate investor confidence. The AEC will bring substantial challenges to the manufacturing sector as it is all about undertaking activity that an AMS is most cost effective in undertaking. Government manufacturing enterprises may be an impediment to change as many may be producing products that are more cost effective to be produced elsewhere. The speed at which the government allows market forces to apply, the greater will be investor confidence. Export industries are most likely those industries that will expand under the AEC. These industries include canned fruits and vegetables, wood products, rubber products and garments and textiles. Much of the labor demand will be unskilled. As in the past, enterprises are likely to use foreign labor for the most skilled plant operations.

22. Agriculture will expand to supply other nations whose costs of production are higher and whose agricultural potential is limited. Expansion will however need to arise from greater levels of productivity than the current situation. There is a large potential for

substantial export of products but small holdings and indebtedness are holding back the application of high productivity methods. The creation of larger enterprises with the capacity to apply modern technology and practices will demand a more skilled agricultural workforce.

23. Tourist arrivals are already increasing. However the AEC will be a further factor to increase the number of business and tourist arrivals. Increased economic activity from the AEC will draw more business arrivals who of course then add to activity in the tourist sector. Under the AEC, the freeing up of visas in the longer term to allow visitors to move quickly from one country to another as well as greater transport interconnectivity will substantially raise tourist arrivals. Nonetheless sustainability of growth will be dependent of adequate infrastructure being in place. For example, current hotel capacity is overstretched resulting in a shortage of rooms and high tariffs all of which reduce the competitiveness of Myanmar with other countries. Estimates from the Ministry of Hotels and Tourism are that existing and planned construction will provide sufficient rooms only through 2013, with shortages of rooms occurring in 2014 onwards.<sup>9</sup> Tourism will require an increased labor force that can be benchmarked against international standards. This applies to guides, front office staff, as well as catering and food service. Above all, front line staff will require English.

24. The Myanmar financial services sector will undergo a profound transformation as the consequence of the AEC. The sector is generally regarded as primitive by international standards because of its isolation from the growth of this sector internationally. Like many other sectors, it is heavily populated by state institutions and tight government controls. However foreign banks will be able to operate by 2015 and along with a greater liberalizing of the economy, there should be increasing improvements such as the recent introduction of ATMs (for domestic transactions) and foreign exchange facilities (in lieu of the black market). The financial sector illustrates the immense capacity gap that exists in the workforce moving to a knowledge era economy. The AEC will be an important driving force for transforming this sector which will involve staff having to deal with new financial protocols agreed to by AMSs.

25. Overall the AEC, in increasing economic activity and creating new standards in service provision is leading to both a quantitative and qualitative change in the demand for labor. The shift from a self-sufficient to an open economy brings a massive change in the

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<sup>9</sup> CESR-ADB-Australia. 2013. CESR Phase 1 Technical Annex on Labor Market Analysis: The Demand for Higher Education and TVET Graduates (input to the Myanmar Comprehensive Education Sector Review (CESR) Phase 1: Rapid Assessment).



demand for labor. The most critical area is the construction sector. Not only will there be a substantial increase in the number of skilled workers required but they will need the capability to perform to ASEAN standards in all civil and building construction trades. Myanmar needs to specifically address the qualitative aspects, otherwise it will be producing graduates that are unsuitable for employment. Shortages of suitably competent workers are inevitable leading to the employment of foreign skilled workers. The tendency to employ foreign skilled workers will increase under the AEC because of the agreed freer, movement of people especially those occupations covered by MRAs.

## **2. Impact of the AEC on the Supply and Demand for Labor**

26. The AEC will result in a transnational movement of skilled people. Skilled workers who possess ASEAN recognized qualifications in countries with low salary rates will be attracted to countries with much higher rates. This will of course mean suitably qualified Myanmar citizens will under AEC, have much better access to work opportunities elsewhere in ASEAN. This of course constitutes a brain drain. It also brings the benefits of remittances and the acquisition of new skills to be applied later in Myanmar. Offsetting the issue of brain drain, Myanmar companies will be able to successfully compete in tenders to undertake work in other AMSs if they have Myanmar staff who are ASEAN recognized.

27. The AEC will allow AMS citizens easier access to work in Myanmar. Given a paucity of skilled workers in Myanmar, many companies will opt for foreigners to perform the most skilled functions. Being globally competitive will result in many companies seeking skilled staff who are ASEAN recognized.

28. A differentiated labor market is likely to be the outcome from the AEC. One part of the labor market will be Myanmar jobs that do not require skilled labor to ASEAN benchmarks. The other part will be ASEAN benchmarked skilled labor. This can be achieved by differentiating between institutions. Some higher education institutions, through substantially changing their whole approach, will gain mutual recognition of their qualifications. Other institutions will continue with lower cost options to provide qualifications that will only have recognition in Myanmar. Similarly some TVET institutions will follow national qualification requirements based on an NQF and thus gain ASEAN recognition.

29. The demand for skilled labor is likely to be in excess of the supply. With increased economic development brought about by the AEC, there will be an increasing demand for

ASEAN benchmarked qualifications. On the other hand, the poor human resource capacity and physical infrastructure of universities and TVET institutions is unlikely to support skilled labor to the standard and quantity needed.

30. Data about the Myanmar labor market is limited. There is poor definition of occupations and occupational levels. Part of this arises from the limited nature of the TVET subsector and the tendency to concentrate on academic qualifications. Other AMSs will share similar problems. However the possession of a highly defined and competently skilled workforce will increasingly become an asset. Labor market data, NQFs, national qualifications and professional registration will become more and more important for training systems to either follow or link into.

### **3. Basing the Training System on the Labor Market**

31. The AEC as a response to globalization will cause massive ongoing changes to economic activity. This in turn will give rise to rapid change in the requirements of the workforce in quantitative and qualitative terms. Changes will be ongoing in the number of people needed in specific skilled occupations and the functions needed to be performed will also change.

32. Vocationally oriented HE and TVET in Myanmar have evolved to meet the needs of a largely internally focused and static economy. Economic changes under the AEC suggest a very different training system and one that is much more in tune with the labor market. While there are significant numbers of HE graduates, the TVET system produces few. The likely demands for the economic developments that will eventuate will mean a need for substantially more TVET graduates.

33. Internationally, training systems especially TVET systems have evolved to focus on the capability required by the workplace. This has meant a shift from an academic approach emphasizing knowledge to a focus on concrete skills and competencies to perform functions. This has meant a shift in emphasis from inputs (i.e. the content of instruction) to outcomes (what a graduate can actually do). Defining the outcomes has come from industry advising on the functions and responsibilities of specific jobs.

34. A labor market information system (LMIS) is fundamental in determining the absolute numbers of specific skilled workers that are required and the current shortages. This needs to be regularly updated and the information readily accessible to all. Training systems

internationally have attempted to orientate training towards areas of greatest need and away from areas of least need. This requires the training systems to be much more flexible. Fixed funding to government institutions does not produce flexibility. The creation of a training market and the use of contestable funding are however mechanisms that are being used in many countries to ensure resources flow to the training that is most needed.

35. Qualitative issues about training are all about the degree to which a graduate can perform functions currently happening in the workplace. National qualifications under an NQF are a means by which the current capability requirements of given occupations are specified. National qualifications effectively link labor market requirements with the outcomes of training. National qualifications need to be updated regularly in consultation with industry to reflect changes in the workplace.

## **C. CONCLUSIONS**

36. The training system of Myanmar will need to substantially change to meet the economic demands of the AEC. The HE subsector in specific disciplines will need to meet the requirements for mutual recognition in those disciplines. Overall the demand will be a greater capability in graduates especially in being able to apply knowledge to work situations. The latter will create the need for upgrading of facilities and staff.

37. The TVET subsector will need to be both expanded and strengthened. There are options for expansion that do not necessarily require the development of government institutions. Strengthening will necessitate the introduction of an NQF, national qualifications and a quality system to ensure consistency and transportability of national qualifications. Resource limitations may mean that two systems exist. One system to address local needs. The other system to meet an international standards such as the needs of the AEC.

38. The AEC will require an effective LMIS in order to provide trends in labor market demand and supply for planning training effort. Data needs to be collected on an on going basis and the information should be easily accessible by the public. The training system. Funding mechanisms need to be put into place to enable training effort to match key skill gaps.