ASSOCIATION OF TANZANIA EMPLOYERS (ATE)
Skills Development Assessment

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Glossary of Terms

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Executive Summary

Background

The private sector in Tanzania sees many opportunities yet faces many constraints. The shortage of skilled labor, at all levels, is one of the most serious of those constraints. When compared to neighboring Kenya, or other developing economies like China and India, labor productivity in the Tanzanian manufacturing sector is significantly lower. Value added per employee is 43% lower than in Kenya, 54% lower than in China, and 37% lower than in India[1]. Tanzania also falls behind China, India and Kenya in agriculture value addition and agribusiness processing, which suggests that despite Tanzania's heavy reliance on the sector for GDP growth, Tanzania's workforce lags behind in adopting technology and investing in innovations that improve production output and competitiveness.

Objectives of Assessment

The Association of Tanzania Employers (ATE) contracted JE Austin Associates to carry out a National Skills Development Assessment to highlight the overall skills gaps within Tanzania and provide recommendations for improvement to the existing skills provision system. This assessment will provide ATE with information for an advocacy initiative whose objective is to persuade Government to make changes to the existing policy framework, and skills provision system that will result in improvements in the quality and outreach of skills training in Tanzania. To this end, this assessment provides the detailed and credible information and data required to support arguments for reform.

Summary of Constraints

This assessment has identified the following key constraints which, when addressed, will assist in improving Tanzania's skills development system and contribute to the country's overall it competitiveness.

- ***The Skills delivery system is divided and does not provide the skills businesses require***

  The Tanzanian Government's system for delivering skills is dual in nature. There are two governing institutions, which have mandates for these activities. The Vocational Education Training Authority (VETA) has responsibility for coordinating, regulating, financing, providing and promoting vocational education in the country, and the National Council Technical Education (NACTE) has the responsibility for coordinating regulating and accrediting technical skills providers. This dual system falls outside of commonly accepted international good practice which unifies vocational and technical training into a cohesive Technical and Vocational Education and Training (TVET) framework.

[1] 2004 Investment Climate Assessment, World Bank

- ***The Skills Development Levy (SDL) is too high***

The existing framework for funding skills training in Tanzania has several constraints.

- *A SDL of 6% exceeds international good practice. Internationally, skills development levies range from 1-3%.*
- *Tanzania's existing skills training system distorts the market and limits competition by subsidizing government provided training.*
- *Tanzania's 6% SDL is viewed as a tax on jobs and therefore is a disincentive to formal employment*
- *Tanzania's 6% SDL does not promote quality instruction.*
- *6% lowers overall competitiveness in the entire skills delivery system*

- The Skills Development Levy is not implemented, nor distributed transparently

Only 2% of the 6% is directly traceable to VETA, the remaining 4% is not allocated transparently and perceived by the private sector to be a hidden tax.

- Tanzania's private sector has given up on the existing skills delivery system

Evidence suggests that many companies place little value in the levy system because even though they contribute to skills development, they still have to privately train their employees, increasing their cost of doing business and impeding their competitiveness. Other firms either decide not to pay the levy expecting that they'll have to train their employees instead, or informally engage temporary employees to limit their payroll and SDL obligations.

-Tanzania's private sector, and private skills providers, lack incentives to invest in human capital development and ongoing training

To cope with the ineffective system, firms have adopted several strategies to acquire the requisite skills to competitively operate. Larger businesses with resources cope by sending their employees to other countries, or training their staff internally.Those that cannot afford to invest in training, cope by hiring unskilled labor, or temporary employees, usually resulting in higher rates of employee turnover, and lower productivity. Companies feel that they are double paying for skills provision to their employees because they contribute to the SDL, yet still have to train employees themselves. This leaves little additional resource for ongoing development. Similarly, private skills providers have little incentive to invest because the market is deemed distorted, with most resources going to VETA schools and little to private skills providers that are VETA authorized training facilities.

- Vocational and Technical Education Providers lack coordination amongst themselves.

For some Tanzanians, vocational education is not valued as a means for skills acquisition. When students are not qualified to enter secondary school, they are left with limited options for continuing education. Vocational training is then viewed as the only opportunity for these students. Though students view a nationally recognized certificate as important for employment opportunities, there is no perceived educational progression between vocational education and continuing education, thus limiting their job possibilities. There is little linkage between vocational training schools, technical training schools, and universities. This perpetuates the perception that vocational education is a 'dead-end' track and does not motivate students to excel in their studies with the hopes of future educational advancement beyond Level 3.

- The skills delivery system is poor in quality.

Although a Competency Based Educational Training (CBET) system has been proposed by VETA and NACTE, it is in varying stages of implementation, and with varied results. Many VETA-certified training institutions still provide course offerings based on a knowledge-based system, not based on skills acquisition.

What results are unsatisfied private sector clients, and graduates with no applicable understanding of the concepts they are exposed to from training. These graduates are ill prepared to enter the workforce. To compensate for this inadequate system, some Tanzanian firms make do with the existing systems, while other companies hire more qualified staff from other countries, or send their workers to other countries for skills development. In both cases the productivity of these firms, the service delivery of the skills providers and the overall competitiveness of these industries suffer from the poor skills delivery system.

Summary of recommendations and expected outcomes

There are many paths to consider when addressing Tanzania's constraints. What follows are recommendations for ATE to advocate for based on; policy initiatives, private sector initiatives, and skills development initiatives. Some of these recommendations require coordination with others to succeed, while other recommendations can be implemented on their own.

- Significantly reduce the skills development levy and defer the costs of training to qualified enterprises, through certified skills providers.

This recommendation has three elements:

- *In keeping with good practice in other countries, the skills development levy should be reduced to 1-2 %.*
- *Introduce a skills development rebate system.*

Under this plan, enterprises that provide NACTE certified training to their employees are eligible to receive rebates against the cost of training.

- *Introduce a skills development voucher system.*
  Enterprises are also eligible to receive a voucher to defer some, (or all of) the cost of training when they are trained by NACTE certified skills providers.

- Propose the TVET Reform Act; a policy initiative that develops and recognizes a national Technical and Vocational Education & Training Strategy

Intended to unify the existing dual framework between vocational and technical education, an overall national strategy should be proposed which incorporates all skills providers into one TVET Act. Benefits of a unified strategy include; a broader choice of study and the opportunity to gain skills and training suited for the workplace, learning skills that are valuable to employers, a continuing education system which provides ongoing learning opportunities for students entering the vocational system, and a unified certification process which is recognized by all Tanzanian employers. Elements of the policy recommendation include:

- VETA assumes skills provision responsibilities only, and operates the existing VETA owned schools throughout Tanzania
- NACTE becomes TVET regulator and accreditation body, and is given responsibility to collaborate with private sector enterprises to maintain quality standards.
- Both private skills providers and government subsidized skills providers (e.g. VETA, NCT and others) must comply with the accreditation standards defined by NACTE.

- Transparently redistribute the skills development levy to all public skills providers

To ensure transparency and accountability of the use of the SDL, it should be redistributed to all publicly funded vocational and technical skills providers with a distribution based on national priorities. This redistribution should also be publicly tracked and disseminated. Providing this information publicly allows for transparency in the distribution of the SDL.

- Establish a TVET National Advisory Board (TVETNAB)

The purpose of this NAB is to empower the private sector in guiding the proposed TVET reforms. This Board will be represented by the private sector's apex organizations, and have a majority of its seats filled by their designees. International experts should also be considered for proxy seats to bring in good practices from other countries. Among others, possible initiatives to be led by the Board include:

- Encouraging and strengthening a national apprenticeship program,

- In coordination with NACTE, establishing minimum skills requirements which can be incorporated into the National Skills Qualification Framework,
- In coordination with NACTE, propose the accreditation and certification of existing company-run training programs,
- In coordination with NACTE, establish an ongoing mechanism for monitoring performance and quality against TVET international good practices
- Representing the private sector's interests in future TVET policy discussions

- Support NACTE in implementing a National Qualifications Framework based on Competency Based Education and Training (CBET).

The TVETNAB should play a pivotal role in partnering with NACTE to develop and implement a CBET-based National Qualifications Framework. This framework serves the following objectives:

- Provide clear competence descriptors based on skills knowledge and ability, for each education level
- Provide a clear path of progression between vocational, technical and university level education for those that qualify

- Develop a labor and manpower framework for skills upgrading, continuing education and advanced skills acquisition.

To address the vacuum that exists after basic skills acquisition, a labor and manpower system should be designed with partnership between the TVETNAB and the Ministries of Education and Labor to strengthen formal and informal apprenticeships, design and implement ongoing training modules which build on existing skills and allow for skills upgrading. As with all other courses, these advanced-skill courses will require NACTE certification, and can be delivered internally from employers, or outsourced to private skills providers.

- Strengthen ties between TVET graduates and the private sector through an online National Jobs Board, and improved career placement services

Finally, ATE should explore a partnership between the NAB and the existing Labor Exchange Center (LEC), (operated by the Ministry of Labor) to coordinate stronger ties to formal employment for TVET graduates. Currently, the LEC links jobseekers with formal and informal employment by educating job seekers on demanded skills. Its role can be strengthened in the following ways:

- Establishing an online jobs board which posts career opportunities from the private sector, and supports online searches allowing the private sector to identify qualified candidates.

- Supporting enhanced career placement services, job fairs, and career counselors within TVET institutions to enable entering students opportunities to plan their careers more thoroughly.

Expected Outcomes

The following outcomes can be expected from these recommendations.

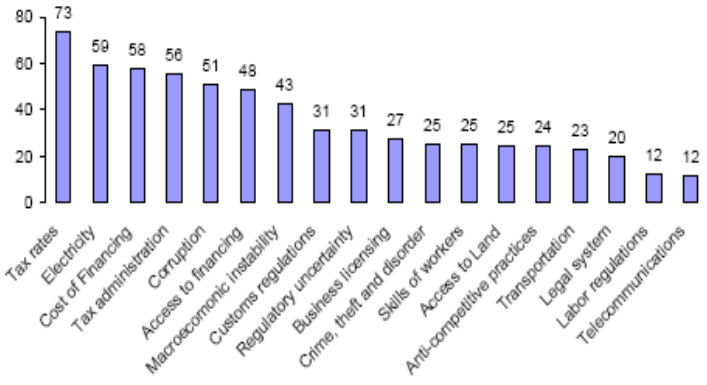
- A national TVET strategy, based on international good practice, which is responsive to the needs of the private sector, improves quality, encourages competition, and improves the overall competitiveness of Tanzania
- A more engaged private sector with ownership and influence of the national technical and vocational skills delivery and monitoring process.
- Businesses that are empowered to leverage the resources they invest in skills development to make decisions on how the skills they need is acquired.
- Businesses will have access to skilled graduates, with a minimal need to be re-trained in basic skills
- A measurable performance criteria to maintain quality instruction and output
- Trainees will have access to world-class training that is responsive to local, regional and sectoral standards and needs
- Increased opportunities for job creation and formal employment

Background

The private sector in Tanzania sees many opportunities yet faces many constraints. The shortage of skilled labor, at all levels, is one of the most serious of those constraints. When compared to neighboring Kenya, or other developing

economies like China and India, labor productivity in the Tanzanian manufacturing sector is significantly lower. Value added per employee is 43% lower than in Kenya, 54% lower than in China, and 37% lower than in India[2]. Tanzania also falls behind China, India and Kenya in agriculture value addition and agribusiness processing, which suggests that despite Tanzania's heavy reliance on the sector for GDP growth, Tanzania's workforce lags behind in adopting technology and investing in innovations that improve production output and competitiveness.

Company perception on impediments to doing business in Tanzania

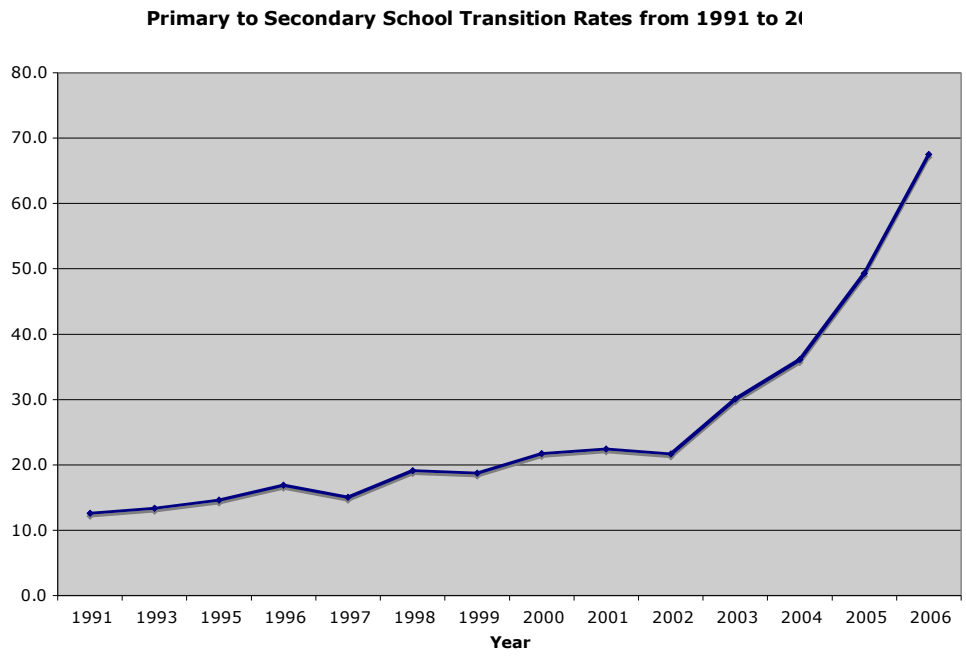


Source: Tanzania Investment Climate Assessment, 2003

In the World Economic Forum's 2007-2008 The Global Competitiveness Report, Tanzania's overall competitiveness index is 104 out of 131 countries, Kenya's is 99, India's is 48 and China's is 34. When the private sector lists and ranks the Most Problematic Factors to Doing Business in their countries, Tanzanian businesses ranks their inadequately educated workforce 9.30, (on a scale of 1-18), Kenya ranks their inadequately educated workforce 2.10, India ranks their inadequately educated workforce 3.10 and China ranks their inadequately educated workforce 6.60.[3] In 2003 a Tanzanian Investment Climate Assessment showed 25% of Tanzanian enterprises rated "skills of workers" as a constraint to enterprise operations and growth.

As a percentage of GDP, Tanzania spends 2.2%[4] on public education. This figure is significantly lower than its northern neighbor, Kenya, and ranks lowest amongst the benchmark countries of this study. However, over the past 5 years, Tanzania has increased enrollment in secondary schools from a total enrolled of 261,896 in 2000 to 675,672[5]. Over the same period, the transition rate of students leaving primary school and entering secondary school was 21.7% in 2000 and increased to 67.5% in 2006[6]. Renewed focuses on primary school testing, and secondary school enrollment are two contributing factors to these increases.

[2] 2004 Investment Climate Assessment, World Bank
[3] 2007-2008 Global Competitiveness Report, World Economic Forum
[4] Ministry of Education and Vocational Training (MOEVT) Budget as compared to National Budget 1996/97-2007/08
[5] ibid
[6] Ministry of Education and Vocational Training (MOEVT) Budget as compared to National Budget 1996/97-2007/08



Source: Ministry of Education and Vocational Training (MOEVT) Budget as compared to National Budget 1996/97-2007/08

Low levels of education, lack of appropriate and quality training, limited exposure to a culture of entrepreneurship and limited capacity to utilize technology, all contribute to Tanzania's low levels of productivity. Workers available to Tanzania's manufacturing businesses have received less formal education and less specialized technical training than their counterparts in Kenya and Uganda. In addition, while an estimated 44% of firms in Tanzania provide formal training to their employees, 48% of firms in Kenya and 71% of firms in China provide formal training to their employees, and this training is significantly longer in duration than in Tanzania[7]. These aggregate figures hide variations by sector.

Objectives of The Assessment

The Association of Tanzania Employers (ATE) contracted JE Austin Associates to carry out a National Skills Development Assessment to highlight the overall skills gaps within Tanzania and provide recommendations for improvement to the existing skills provision system. This assessment will provide ATE with information for an advocacy initiative whose objective is to persuade Government to make changes to the existing policy framework, and skills provision system that will result in improvements in the quality and outreach of skills training in Tanzania. To this end, this assessment provides the detailed and credible information and data required to support arguments for reform.

Specifically this assessment has two key objectives:

[7] IFC

1. Identify opportunities for improving the policy environment, which will result in improvements in the quality and outreach of skills training (including increased private sector participation?)
2. Provide evidence to support arguments for reform, in particular focusing on:
   a. Assessment of skills levels in Tanzania, by key sector,
   b. Assessment of the mismatch between skills development services available and the requirements of the private sector,
   c. The impact of low skill levels in Tanzania on business growth, investment, the competitiveness of Tanzanian businesses, and employment,
   d. A detailed assessment of what is causing the low skills level in Tanzania,
   e. Using learning from good practice in other countries, to identify specific areas for reform.

Statement of Principles

Early in the project, JE Austin Associates met with ATE to develop guiding principles that would shape the remainder of the assessment. The principles take into account Tanzania's goals to become globally competitive, and position that the Tanzania's private sector be viewed as the engine for economic growth and the source of the country's competitiveness. Additionally, the skills development system intended for Tanzania should be based on the needs of trainees, and employers. The following principles were the result of this joint JE Austin Associates and ATE session:

1. Technical and vocational education and training should provide graduates with the skills that will enable them to find productive employment, and as such, the system and the providers should regard the employers and the trainees as their dual clients.
2. Improving the quality and availability of TVET requires the existence of a functioning skills development market which enables private suppliers of skills development training to enter the market and compete fairly with public players. Removing subsidies and other barriers to entry will stimulate increased competition resulting in improved quality, innovation, and productivity.
3. As such, the national expenditure on Technical and Vocational Education and Training (TVET) should deliver to employers, trainees and the nation excellent value for the money invested.
4. The employers, especially the private sector, should drive TVET objectives and content.
5. Private sector involvement should include design, delivery and performance measurement.
6. Workforce development is an effective tool for businesses and economies to increase their competitiveness.

Assessment Methodology

To gain a thorough understanding of the opportunities and constraints of the skills development system in Tanzania, the consulting team designed an approach that included analyses of the Manufacturing and Tourism sectors. ATE chose these sectors for their representative importance and significance to the Tanzanian economy, as well as proximity in and around Dar es Salaam.[8]

This sector analysis included the following:

- A comparative framework from which other sub-sector analyses may be conducted in the future,
- A sector-specific assessment of existing skill-sets. This skills assessment was implemented via a skills gap analysis whereby 40 Manufacturing and 40 Tourism businesses were surveyed[9],
- An indicator-based benchmarking analysis whereby the consulting team compared Tanzania's vocational education system against other country models. The comparator countries selected to measure against Tanzania are: Kenya, South Africa, Mauritius, Australia, the United Kingdom (UK) and India. These countries were selected based on their international reputation for applying technical and vocational skills training good practice, their regional relevance, or their comparable economies.
- A market-trends analysis, which assesses anticipated skills that incorporate technology and innovations for future productivity enhancement.

Expected Outcomes and Deliverables

Recommendations from this Assessment are presented beginning on page 31 of this report. The following outcomes can be expected when the proposed recommendations are implemented.

- A national TVET strategy, based on international good practice, which is responsive to the needs of the private sector, improves quality, encourages competition, and improves the overall competitiveness of Tanzania.
- A system for delivering skills development in Tanzania which systematically effects competitiveness and meets the aspirations and requirements of the private sector.
- A more engaged private sector with ownership and influence of the national technical and vocational skills delivery and monitoring process.
- Businesses are empowered to leverage the resources they invest in skills development to make decisions on how the skills they need is acquired.
- Businesses will have access to skilled graduates, with a minimal need to be re-trained in basic skills.

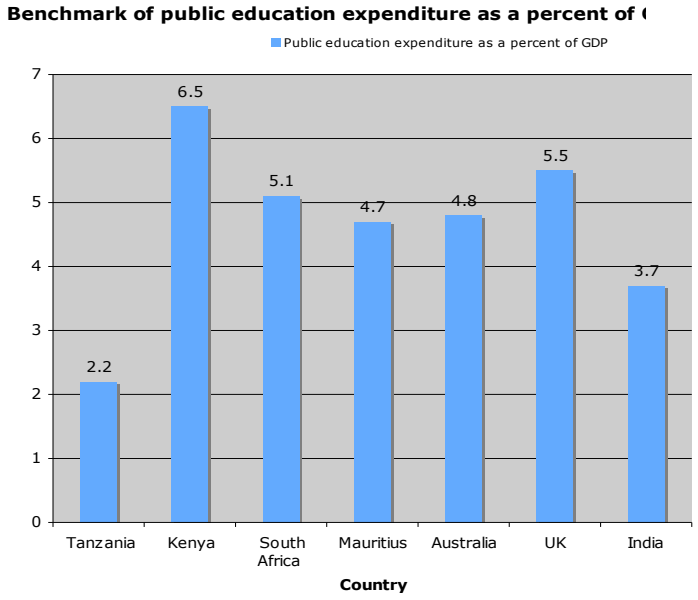
[8] for the Tourism sector analysis, surveys and interviews were also conducted in Arusha and Zanzibar.
[9] To encourage confidentiality and candid responses, the names of these 80 businesses will remain undisclosed

- Measurable performance criteria to maintain quality of instruction and output.
- Graduates will have access to world-class training that is responsive to local, regional and sectoral standards and needs.
- Increased opportunities for job creation and formal employment.

Description of Tanzania's Vocational and Technical Education Systems

History and Structure:
The Education system in Tanzania is comprised of 2 years of pre-primary education, 7 years of primary education, 4 years of Junior (ordinary) Secondary education, 2 years of Senior (advanced level) Secondary education and up to three years of tertiary education.

After completing primary school, students test to get into secondary school.



Source: Various country budget reports

It is estimated that 53.7% of Tanzania's population is of working age. Within this age group, the following table illustrates the percentage of graduates for Tanzania, when compared to Kenya and Uganda[10]. While Tanzania has a higher percentage of primary school graduates, the country lags behind in secondary and tertiary graduates. These indicators suggest that Tanzania has the least educated labor force when compared regionally.

Education Levels among select EAC Countries	Tanzania	Kenya	Uganda
Primary Education graduates	43%	20%	20%
Secondary Education graduates	26%	43%	32%
Technical/Vocational Education Graduates	12%	25%	30%

Primary school students that test well enough to pursue secondary education, have the opportunity to continue to do so in O-level education. For those that fail to get into secondary school, their options are limited. Vocational education is

[10] International Chamber of Commerce: "An Investment Guide to EAC-Opportunities and Conditions, July 2005"

the main fallback available to students who cannot continue on to secondary school.

Because English fluency is primarily taught in Secondary school, the fact that Tanzania lags behind in secondary and tertiary/technical/vocational education suggests that this undereducated workforce also struggles to compete globally because they are not fluent in English.

The system of vocational education in Tanzania is a result of educational reforms that took place in the early 1990s. Responding to the demands of structural adjustment reforms in the 1980s, which called for the privatization of many government institutions, Tanzania realized a need to shift its educational focus to train its workforce for jobs in the private sector. In 1994, the GoT ratified the Vocational Education and Training Act No.1, which established the Vocational Education and Training Authority, (VETA). Two years later, the Ministry of Science and Technology developed the Technical Education and Training Policy. At the time technical education had a different focus from vocational education. Vocational education focused on traditional skills acquisition for predominately manual-labor jobs. Technical education focused on skills to close the gap between vocational positions and University-educated engineers. These technicians were to be trained by institutions apart from VETA.

Tanzania VET Enrollment and Graduation by gender 2004-2006

Year	ENROLMENT							GRADUATES					
	Capacity	Basic Courses		Short Courses		Both Course types		Basic Courses		Short Courses		Both Course types	
		M	F	M	F	M	F	M	F	M	F	M	F
2004	4189	6099	1766	7865	5617	4201	9818	5876	1602	7478	6414	2338	8752
2005	3398	5993	1797	7790	5839	4163	10002	5792	1720	7512	5823	4123	9946
2006	6828	5722	1583	7738	3210	14019	4913	5417	1519	7713	3191	13679	4823

Source: Tanzania Ministry of Education and Vocational Training

As the above table illustrates, enrollment in VETA run institutions exceeds existing capacity, and the existing enrollment is not keeping pace with the demands of a growing labor market. According to MOEVT, just under 80,000 students were enrolled in VETA schools, this represents only .0037% of the available labor market. This could suggest that if VETA schools had more capacity, they would be able to adequately train and provide the country with enough qualified labor. However, it is not the capacity of the schools which is the constraint, it is the dual system of technical and vocational training which requires further inspection.

Two systems for training:

Unlike other East African Community (EAC), or Southern Africa Development Community (SADC) states, Tanzania has not viewed technical and vocational

education and training as one unified or linked system. Instead, Tanzania has been running two parallel systems, vocational and technical. Vocational skills were viewed as practical skills that could lead to formal or informal employment, whereas technical skills were historically viewed 'too academic' for immediate employability. As mentioned, VETA has historically held the principal responsibility for vocational education. The organization responsible for overseeing technical education is the National Council of Training and Education (NACTE). This next section provides a brief overview of the two organizations, and their primary responsibilities.

- Vocational Education Training Authority (VETA)

Through the VET Act, VETA has the following responsibilities:

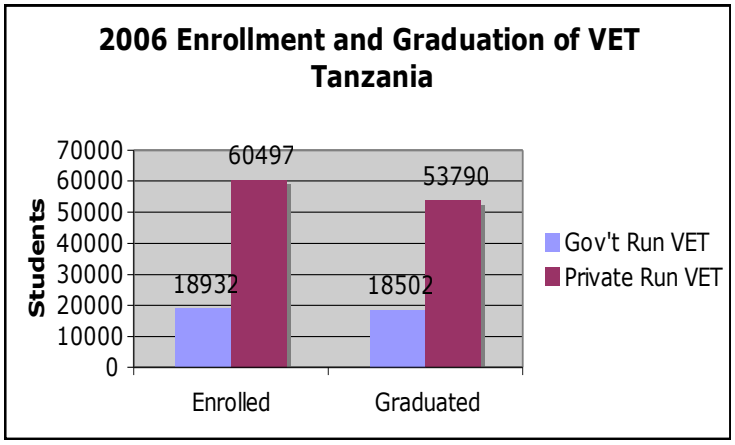
- Registration of vocational education and training (VET) institutions
- Accrediting and Assessing VET institutions
- Setting training standards and developing VET curriculum
- Providing financial support to VET institutions
- Training students through its own VET institutions

Because VETA is both a regulator, and a skills provider, there is a perceived conflict of interest within its structural framework. Most businesses and private skills providers believe VETA cannot effectively serve their needs while impartially serving its own institutional needs.

When established, VETA reported to the Ministry of Labour, Youth Development and Sports, but over time, it has reported to the Ministry of Education and Vocational Training, and now the Ministry of Education. In 2008, a Parliament reshuffle moved VETA to the Ministry of Education, but as of this writing, there is no department within the Ministry responsible for vocational education.

VETA is the principal organization responsible for vocational skills acquisition in the country. VETA currently offers training in over 93 different trades. Among the categories of these classes are: agriculture and food processing, auto mechanics, electrical mechanics, machine operations, textile production, cosmetology, carpentry, masonry, plumbing, road construction furniture making, hospitality and mining In addition to VETA-run schools, privately run VET institutions also exist. These institutions can be categorized as follows; vocational training provided by NGO's, Churches, Missions, training provided by privately run, for profit skills providers, and vocational training that is conducted in-house by businesses.

In 2006, 79,429[11] students enrolled in government and



[11] MOEVT, 79,429 total enrolled

privately run VET institutions. Of those, 91% graduated, but there are no figures that disclose how many of them were hired into the formal economy, nor how many required further training

Source: MOEVT

once employed. What is available, however are Tracer Studies. According to a 2004 tracer study conducted by the University of Dar es Salaam, unemployment rates for students with on the job training, Certificate 1 or 2 training, and those with apprenticeships run as high as 2.7%[12] in 2001. The same report suggests that these unemployment rates are higher today. One should note, however, that the same report suggests that most of these certificate level and university graduates are employed in the public sector, not the private sector.

This lack of up to date job placement information, especially those VET graduates which are entering the private sector, (and not self-employment) could be a reflection of the lack of adequate mechanisms and standards to track graduates.

VETA operates 21 government owned VET institutions and supports 906 privately run VET institutions. 86%[13] of VETA's operational budget is allocated to its own institutions, while the remaining 14% goes to support the privately run schools. This support generally consists of indirect support, (e.g. curriculum development, testing materials, and technical assistance). The disparity between budget allocated to its own institutions over those from within privately run VET institutions also perpetuates a general perception that VETA is operating with a conflict of interest as a regulator and skills provider.

Historically, VETA's training offerings were supply-driven, but as the needs of the private sector evolved, VETA designed a demand-driven approach to training delivery, and conducts labor market studies in an attempt to keep pace with private sector needs. The VETA Act makes provisions for the Vocational Education and Training Board to be represented by industry, but most of its seats are Ministerial level appointments are not adequately representative of the private sector. The Act also stipulates that Trade Advisory Committees be responsible for ensuring that vocational education and training programs are offered according to the needs of the employment market.Though this demand-driven approach is in effect in principle, it is still deemed by the private sector as inadequate. The sector specific labor market studies which would be used to inform such decisions about the nature of demand for certain skills are only conducted perhaps once every ten years and do not keep pace with the changing needs and requirements of private

[12] Economic Research Bureau, University of Dar es Salaam, "The Educated Unemployed: The Challenge Toward Effective Human Resource Use in Tanzania", Dr. Joseph Shitundu.
[13] VETA

businesses. Since the curriculum for each sector is based on the results of the labor market studies, and the labor studies are conducted too infrequently, even when the private sector is invited to provide comment on new curriculum, the private sector views VETA training as outdated even when the curriculum is introduced.

- National Council for Technical Education (NACTE)

The Act that created NACTE was established in 1997, but NACTE did not become operational until 2001. NACTE is responsible for the regulation of all technical education (TE) in Tanzania. Through the NACTE Act, NACTE has the following responsibilities:

- Registration, and coordination of government and privately run TE institutions,
- Accrediting and Assessing TE institutions,
- Setting training standards and ensuring TE curriculum is skills-oriented, based on a competency based education and training (CBET) model.

NACTE coordinates its training oversight by categorizing technical education into five subject areas; agriculture, natural resources and environment, business and management, engineering and other sciences, health and allied sciences, and planning and welfare. There are skills taught in the NACTE system, which are also taught in the VETA system, especially in agriculture/food processing. As of this writing, there are 203 (103 public and 100 private) TE institutions supported by NACTE. Unlike VETA, NACTE does not own, nor operate training institutions, and doesn't possess the conflict of interest perceived within VETA's structure. Also unlike VETA, students entering into NACTE certified schools have a prerequisite of finishing secondary school.

Originally established by the Ministry of Science and Technology, NACTE later reported to the Ministry of Higher Education, Science and Technology, but now, along with VETA, reports to the Ministry of Education.

To determine which skills to train, NACTE also conducts labor market studies and seeks private sector input to identify future areas of study. The private sector is also encouraged to participate in curriculum design, but similar to the curriculum design process within VETA, though they are encouraged to participate and provide comments on new curriculum, the businesses are not highly engaged. NACTE's curriculum is based on the CBET framework, which is outcome (skills) based, and not knowledge-based.[14]

[14] In the knowledge-based skills delivery system, emphasis was placed on the process of activities and memorization. This system of skills transfer has proven inadequate because when processes or equipment

The following table identifies the institutions supported by NACTE that represent the manufacturing and tourism sectors. Note that enrollment in some of these institutions exceed capacity.

REGISTERED TECHNICAL INSTITUTIONS (UNDER NACTE) SERVING MANUFACTURING & TOURISM SECTORS

Institution	Registration Award	Capacity	Cert	Dip	Adv Dip
Dar es Salaam Institute of Technology - Dar es Salaam	Full	1000			
Dar es Salaam Maritime Institute - Dar es Salaam	Full	90	10	50	52
Mbeya Technical College – Mbeya	Full	500			
Technical College Arusha – Arusha	Full	500	471		
Karume Technical College – Zanzibar	Full	300			
Civil Aviation Training Centre - Dar es Salaam	Full	200			
Rwegarulila Water Resources Institute - Dar es Salaam	Provisional	150	155		
Ardhi Institute – Morogoro	Full	100	36	68	
National Institute of Transport - Dar es Salaam	Full	600	12	147	182
Ardhi Institute – Tabora	Full	150			
Madini Institute – Dodoma	Provisional	100			
Railway Training College – Tabora	Provisional	100			
Learn IT Ltd. - Dar es Salaam	Provisional	300			
Institute for Information Technology - Dar es Salaam	Provisional	255			
Misungwi Community Development Training Institute – Mwanza	Provisional	160	161		
Institute of Management and Information Technology - Dar es Salaam	Provisional	50			
JR Institute of Information Technology – Arusha	Provisional	300	55		
Bandari College, Dar-es-Salaam	Full	275			
Suram Business Solutions Ltd, Dar-es-Salaam	Provisional	150			
National Sugar Institute – Kidatu	Full	2000			
Techno Brain - Dar-es-Salaam	Provisional	750			
St.Joseph Institute of Information Technology, Songea	Provisional	100			
St.Joseph College of Engineering & Technology, Dar-es-Salaam	Provisional	720		127	122

change, students were incapable of adapting. In the outcome (skills) based, emphasis is placed on the desired outcome of the trainee. Students focus on principles for skills acquisition relevant to the sector of study, and have an ability to react and adapt to changing factors in the workplace, while still applying the principles learned when training. CBET training focuses on what the learner should be able to do, or be like upon completing training. CBET training organizes instruction and assessments based on the desired learning outcomes

Institution	Registration Award	Capacity	Cert	Dip	Adv. Dip
Livestock Training Institute Tengeru - Arusha	Full	450	132	299	
Mbegani Fisheries Development Centre – Bagamoyo	Full	120	22	79	
Ministry of Agriculture Training Institute Mlingano – Tanga	Full	100		43	
Wildlife Training Institute Pasiansi - Mwanza	Full	120			
Ministry of Agriculture Training Institute Uyole – Mbeya	Full	495			
Mweka College of African Wildlife Management – Moshi	Full	176			
Forestry Training Institute Olmotonyi - Arusha	Full	160			
Ministry of Agriculture Training Institute – Mtwara	Full	120	41		
Ministry of Agriculture Training Institute Igurusi – Mbeya	Provisional	80	41		
Livestock Training Institute, Morogoro	Full	160			
Ministry of Agriculture Training Institute, Ilonga – Morogoro	Full	220	35	72	
Ministry of Agriculture Training Institute, Ukiriguru – Mwanza	Full	320	18	92	
Livestock Training Institute – Mpwapwa	Full	240	73	97	
Nyegezi Freshwater Fisheries Institute – Mwanza	Full	165			
National College of Tourism - Dar-es-Salaam	Full	60	142		
Njuweni Institute of Hotel Management & Catering, Kibaha	Provisional	100			
Vision Hotel and Tourism College - Dar-es-Salaam	Preparatory	-			
East African College of Hospitality & Tourism Management - Dar-es-Salaam	Preparatory	-			
The African Institute of Business Management - Dar-es-Salaam	Preparatory	-			
The African Utalii Colege - Dar-es-Salaam	Preparatory	-			

SOURCE: Ministry of Higher Education Science and Technology, *List of NACTE Registered Technical Institutions, September2004*

Tanzania's Payroll Levy to fund skills development.

To fund vocational education in Tanzania, a skills development tax is levied on private enterprise. In keeping with other international skills development systems,

Tanzania's vocational and technical education system is funded by a payroll levy equivalent to 6% of a business' payroll. This 6% is not in keeping with international good practice, which levies on average 1%-2% of business payroll. In Tanzania, of the 6% drawn from businesses, 2% is directly budgeted for VETA, the remaining 4% is not easily tracked, nor is its allocation publicly transparent. This lack of transparency has led many in the private sector to conclude that the levy not directly allocated to VETA is really a hidden tax. Overall, the 6% levy on payroll is viewed as an exorbitant tax, especially when compared to international good practice. It is also important to recognize that Tanzania's formal businesses (those which have registered) are proportionally fewer than businesses in the informal economy. Formal businesses carry the burden of funding the SDL from their payroll while the informal economy does not contribute, but instead benefits from the skills development system by receiving graduates from VETA.

In the country, proposals have been put forward to suggest that VETA would be more effective in skills provision if the full 6% SDL was applied to the organization. However, this argument does not substantiate the premise that the private sector should have a greater responsibility and autonomy to make decisions on which skills and how those skills should be trained for its workforce, nor does it address the premise that the existing system is market-distorting, providing little incentive for private skills providers to enter the market.

Breakdown of Tanzania's Skills Development Levy Distribution (in Tsh)

ASSOCIATION OF TANZANIA EMPLOYERS (ATE)
Skills Development Assessment

2007/08 Budget

		PE	OC	TOTAL
32	Tabora Secretarial College	73,044,000		**73,044,000**
32	Civil Service Training Centre	81,033,000	593,610,000	**674,643,000**
50	Tanzania Institute of Accountancy	687,634,000	623,857,500	**1,311,491,500**
50	Institute of Accountants Arusha	1,060,324,000	454,045,300	**1,514,369,300**
68	Contribution to Tanzania Education Fund	480,882,000	4,500,000,000	**4,980,882,000**
68 & 52	National Council for Technical Education	509,074,000	1,299,150,000	**1,808,224,000**
68	Arusha Technical College		1,002,000,000	**1,002,000,000**
68	Mbeya Institute of Science and Technology	1,091,371,000	1,550,160,000	**2,641,531,000**
68	DSM Institute of Technology	3,048,044,000	1,344,370,500	**4,392,414,500**
68	National Commission for Science and Technology	666,890,000	495,600,000	**1,162,490,000**
68	National Science and Technology Fund		600,000,000	**600,000,000**
98	Technology Transfer Centre		212,400,000	**212,400,000**
69	National College of Tourism	148,181,000	200,018,000	**348,199,000**
	TOTAL	**7,846,477,000**	**12,875,211,300**	**20,721,688,300**

Business Skills Development Levy budget	**72,557,000,000**
Transfers to VETA (1/3)	24,185,666,667

Source: Republic of Tanzania Ministry of Finance

The above table represents a budget breakdown of the Skills Development Levy budget allocation in Tanzanian Shillings. PE stands for Personal Emoluments (Salaries), OC stands for Other (non-salary-related) Charges. In 2007/08 Tsh72.5b represents the full 6% which was funded from the Skills Development Levy. Of that 6% Tsh24.2b was allocated to VETA.

Comparative Framework of Tanzania's System

To compare Tanzania's method for skills delivery, a comparative framework is necessary to benchmark the system against international good practice, and other comparator countries. The following 6 points of comparison were used for this comparative analysis:

1. Vision and Strategy (What is the role of technical education in the country?);
2. Information on the employment market in general and on the demand for training and analysis of skills requirements in particular;
3. Classification of jobs and identification of professional sectors;
4. Program Implementation, Training Provision and Training Outcomes (corresponding certificates, diplomas and qualifications);
5. Quality Assurance (How is quality control maintained, and what is the impact evaluation processes?);
6. Decision Making (at local, national and intermediary levels.)

This framework was applied to the following comparator countries; Kenya, South Africa, Mauritius, Australia, the United Kingdom (UK) and India.

Summary of Comparative Framework

The result of this comparison is meant to be illustrative, and is intended to demonstrate the relative merits of each system. The complete framework can be found in Appendix 3.

Vision and Strategy for TVET:

All comparator countries (Kenya, South Africa, Mauritius, Australia, the United Kingdom and India) have a unified TVET strategy based on country specific economic growth strategies. The TVET systems in those countries have strategies that rely on private sector participation. The strategies also recognize the need for ongoing adaptation to (new skills, and technology adaptation) to attain global competitiveness. Tanzania's strategy is really two strategies. One strategy is for the VET system, and another for the TE system. Neither strategy mentions responding to the needs of the private sector, nor positioning technical and vocational education to respond to global trends.

Employment market information and the demand for skills:

The sub-Saharan African comparator countries (Kenya, South Africa, and Mauritius) are in various stages of economic growth and job creation. Tanzania's, and Kenya's formal sectors are smaller than their informal economies. Neither country has enough jobs to absorb TVET graduates, and both have purposefully adopted strategies to support their informal economies with activities that encourage entrepreneurship and microenterprise development. The UK, Australia, and South Africa have moderate growth economies, and both the UK and South Africa have skills shortages, however they have addressed this skills

shortage differently. The UK has focused on re-energizing an apprenticeship program, which promotes personal growth and the possibility of worker mobility within EU member states. South Africa has address their skills shortage by developing industry-based Sector Education & Training Authorities (SETA) which are intended to better respond to private sector skills gaps. Australia is not experiencing a skills gap at present, but seeks to keep up with the needs of their industries via their Skills Councils and Industry Advisory Bodies, who are responsible for keeping local institutions apprised of changing local conditions.

India's hyper economy is absorbing existing skilled labor faster than they can be trained. As many skills are taught in the informal economy as in the formal. To cope with the shortage of specific skills, India is revising its industry certifications to recognize CBET-based informal learning.

Availability of job classifications

A National Qualifications Framework has been proposed by NACTE in Tanzania, but it has yet to be fully adopted nor implemented. All other comparator countries have approved, and adopted National Qualifications Frameworks, which clearly classify jobs, requisite skills and competencies, and indicative certifications.

Rigor and recognition of certifications, diplomas and qualifications

The National Qualifications Framework proposed by NACTE in Tanzania bases certification on national and international standards. However, since it has not been fully adopted, there is no uniformity in certificate, diploma and qualifications. A certificate from one skills provider is not always the equivalent to one from another provider.

All other comparator countries tie their certifications, diplomas and qualifications to their National Qualifications Framework. These certificate levels and diploma degrees are matched with international standards. In addition to matching certificate levels and diploma degrees to international standards, in India, employers and employer associations also play a role in determining industry specific certification standards.

Quality Assurance Process

In Tanzania, there are two governing organizations responsible for quality assurance, VETA and NACTE. As such, quality suffers, especially in sectors in which both bodies overlap, (tourism). In some instances skills providers possess two certifications, one from each institution. When one institution seeks to close an institution for non-compliance, the institution remains open because they have their other certification to fall back on. This dual system severely impedes uniform regulation.

In Australia and India, TVET programs are implemented at the State level, but are regulated nationally. Under these arrangements, testing is Statewide. In Kenya, South Africa and Mauritius, industry clusters and organizations are

responsible for implementing TVET and controlling quality based on national standards.

TVET Decision Making Process

Decisions for technical and vocational education in Tanzania are made at the national level, but decisions on implementation are made and carried out on a regional/zonal level. Mauritius also sets the TVET agenda and makes decisions at the national level.

In India, TVET decisions are made at the state level. In the UK, the decision making process for TVET is employer led, yet based on central government parameters. In Australia, the decision making process for TVET is similar to Tanzania's. Decisions are made at the national level and implemented at regional/state levels. However, in Australia, Industry Training Advisory Bodies at the state level, which are dominated by employers, provide information on demanded skills and training requirements. In Kenya, decisions for TVET are heavily influenced by industry associations that report their needs to representative Ministries. Finally, in South Africa, the SETAs are responsible for making decisions in TVET. Each SETA bases their TVET decisions on industry-specific requirements and needs.

Analysis of Tanzania's Constraints

This assessment has identified the following constraints which, when addressed. Addressing these constraints will improve Tanzania's skills development system and contribute to the country's overall competitiveness.

- ***Skills delivery system is divided and does not provide the skills businesses require***

Despite the widely adopted international good practice of a unified Technical and Vocational Education and Training (TVET) framework, Tanzania's system for delivering skills is dual in nature. There are two governing institutions, which have mandates for these activities. The Vocational Education Training Authority (VETA) has responsibility for coordinating, regulating, financing, providing and promoting vocational education in the country, and the National Council Technical Education (NACTE) has the responsibility for coordinating regulating and accrediting technical skills providers. The current system of skills training, through VETA, does not meet the needs of the businesses. Enrollment exceeds existing capacity and the quality of that skills provision is poor. Additionally, graduates are deemed to be lacking core soft skills as well; poor communication skills, poor English proficiency, and poor work ethic. To cope, businesses pay for training by sending employees internationally to acquire skills, which cannot be taught within the country. Others have developed their own training programs to compensate for the lack of t raining new hires receive in the national system. These businesses end

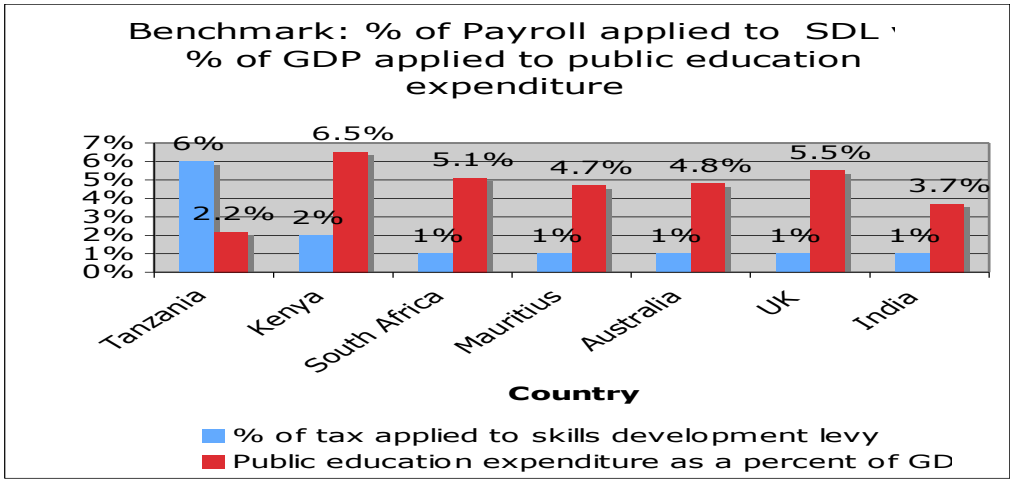
up focusing on coping strategies for survival rather than competitive growth strategies. Furthermore, there is confusion within the private sector on which body is responsible for governing skills training for which sector. In some sectors, both governing bodies regulate the same sector, causing duplication, confusion and conflicts in quality control. This duplication is found within the tourism sector, which relies on the National College of Tourism (NCT) for skills training. The NCT was established to provide vocational training for the sector, but instead of being regulated by VETA (which regulates smaller tourism vocational schools) it is regulated by NACTE.

The various ministries, to which these bodies have historically reported, have perpetuated this divided skills delivery system. VETA has in the past varyingly reported to the Ministry of Labor, and the Ministry of Education and Vocational Training. NACTE has reported to the Ministry of Higher Education, and the National College of Tourism reports to the Ministry of Natural Resources and Tourism. A recent ministerial restructuring has for the first time place VETA and NACTE within the same ministry, (Education), potentially allowing for future streamlined policy initiatives, but as of this writing, the Ministry of Education has not established an office responsible for vocational education.

- ***Skills Development Levy is too high***

The existing framework for funding skills training in Tanzania has several constraints.

- *An SDL of 6% exceeds industry good practice.*
  Internationally, countries, that rely on a SDL to fund skills training levy a tax of 1-2%. While some countries impose the levy on value added tax, good practice countries base the levy on payroll. Tanzania bases its skills development levy on payroll, but its SDL is 3 times higher than benchmark countries. When this exceedingly high levy on payroll is combined with other taxes (e.g. social security), the combined 16% tax applied to business wages negatively impacts a business' decision to hire additional workers.



- *Tanzania's existing skills training system distorts the skills training market and limits competition by subsidizing government training.* As the principal organization responsible for skills training, VETA has too many and conflicting responsibilities within its mandate. VETA regulates, finances and certifies other skills providers and manages its own training institutions. These various responsibilities create a perception of conflicting interests, as VETA is both a regulator and a skills provider. These multiple responsibilities distort the skills training market because other private skills providers rely on VETA for regulatory and financial support, while competing with the institution. Having to compete with the very institution that regulates them limits their ability to offer the same level of services, and limits their ability to invest in training facilities, because their costs of operation are higher than VETA run schools. Another negative impact in this system is the inadequate output of qualified graduates.

  Because the skills taught by VETA institutions are not in line with the expectations of those it serves (specifically the manufacturing and tourism sectors), the quality of VETA graduates is deemed poor. Only well-funded (typically Multinational Corporations) have the means for in-house training. Organizations like Toyota, the larger foreign-owned hoteliers, and firms in other industries have the resources to ensure their staff are adequately trained. They also ensure that their staff are receiving the latest technologically relevant, and globally competitive skills. Smaller, locally owned and operated firms, on the other hand, have little recourse but to rely on the existing system operated by VETA, and cannot afford to supplement technical and vocational training.

- *Tanzania's 6% SDL does not promote quality instruction.* With such a distorted skills delivery market, quality instruction suffers. The existing levy does not encourage quality instruction despite the high costs to businesses. There are no market forces that encourage VETA schools to improve, nor are there market forces that attract quality instructors from the private sector. Similarly, VETA run schools with little competition and no outside accountability, have been slow to improve their own quality standards.

- *Tanzania's 6% SDL is viewed as a tax on jobs and therefore is a disincentive to formal employment.*

- *A 6% levy lowers the overall competitiveness of the entire skills delivery system*

  Despite the high costs of the levy on businesses, skills are not improving. Instead the competitiveness of businesses suffers because businesses' costs of operations are higher than comparable countries. In Tanzania's tourism sector, tour operators' costs are almost twice that of neighboring Kenya. A contributing factor to these higher costs is the cost of training. In addition to the 6% allocated to the SDL, tour operators must also spend additional resource to train new hires. According to a 2003 Investment Climate Assessment, 73% of Tanzanian businesses listed tax rates as the largest hindrance to overall competitiveness.

  Additionally, the limited availability and often, poor quality of vocational and skills training in Tanzania lowers productivity and weakens the competitiveness of Tanzanian firms. Outside of the tourism sector, there is very little partnering with the private sector in training programs, and little training in management or marketing.

  What results is a skills delivery system that does not meet the needs of businesses, and businesses who are unwilling to invest in the process to improve the system. Businesses would rather rely on their own coping strategies to fill the skills gap.

- ***Skills development levy is not implemented, nor distributed transparently***

Only 2% of the 6% is traceable to VETA, the remaining 4% is not allocated transparently and perceived by the private sector to be a hidden tax. Tanzania's Ministry of Finance asserts that the additional 4% which is not traceable is indeed applied to other institutions which are responsible for skills training, (NACTE, the National College of Tourism, etc), but this claim could not be readily confirmed. Whether the entire 6% is indeed applied to skills training is immaterial. The issue is whether the 6% is applied appropriately, in a manner that allows the private sector to hold institutions accountable, to serve their technical and vocational needs.

Budget Category	Budget in Tsh	% of Budget	% of SDL
Other Skills Providers	20,721,668,300.00	0.29	1.71
VETA	24,185,666,667.00	0.33	2.00
SDL funds unaccounted for	27,649,665,033.00	0.38	2.29
Total SDL	72,557,000,000.00	1.00	6.00

Source: Analysis from data compiled from Min. of Finance

- ***Tanzania's private sector has given up on the existing skills delivery system***

Evidence suggests that the companies that can afford to place little value in the levy system because even though they contribute to the SDL and to VETA, they still must train their new employees, increasing their cost of doing business and impeding their competitiveness. Some companies that cannot afford to train employees themselves, yet still cannot rely on VETA trained new hires, cope by hiring unskilled labor at lower wages. They do this expecting that they will turnover these employees in higher incidences. Other firms either decide not to pay the levy expecting that they'll have to ` train their employees instead, hire employees through a series of contract employment schemes, or informally hire temporary employees to limit their payroll and SDL obligations.

- ***Tanzania's private sector and private skills providers lack incentives to invest in human capital development and ongoing training***

Some companies invest in training by sending their employees to European training; others train their staff internally. But these strategies also impede competitiveness, as the companies that train their staff internally are not able to tap into international skills that improve the firm's competitiveness. In both instances, little to no value is attributed to the VETA system by the intended beneficiaries, the private sector. Neither system provides the adequate incentive for future investment in skills provision, whether from the private sector themselves, or private skills providers who consider entering the market. Similarly, privately run skills providers have little incentive to invest in upgrading their existing service offerings, or start new training facilities because the market is deemed distorted, with most resources going to VETA schools and little to private skills providers that are VETA authorized training facilities. As such, they rely on substandard equipment to train enrolling students.

- ***Vocational and Technical Education Providers lack coordination amongst themselves.***

There is also limited linkage between vocational training schools and universities. Vocational education is considered a 'dead-end' career track, and suffers from poor perception from some within the country. In absence of a national educational qualifications framework, students that enter into VETA programs do not have a clear path for continuing education into technical education. Engineering graduates are often too few, or lacking practical experience to improve productivity, innovation, and firm competitiveness.

In addition to the negligible linkage between vocational and technical education, existing institutions are duplicating efforts for skills provision in

the country. This study has discovered that both VETA and the National College of Tourism are building new National Tourism Colleges. The new NCT will be built in Dar es Salaam and is intended to replace the existing institution in the city. At the same time VETA is building a Tourism College in Arusha. While it is not necessarily a negative to build two institutions, which focus on the same sector, there does not appear to be any coordination, nor planning between the sponsoring organizations to ensure both new colleges meet the needs of the country, and are not duplicative.

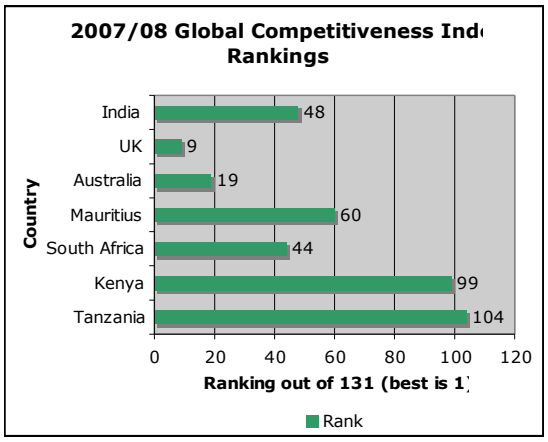
- The skills delivery system is poor in quality.

Although a Competency Based Educational Training (CBET) system has been proposed, and is in varying stages of implementation, the system has offered varied results. Many course offerings still use an older knowledge-based system, which is not based on skills acquisition. Though VETA has formally adopted the CBET model, they have not forced the network of providers with VETA certifications to adopt CBET, or risk losing their accreditation. Compounding the incomplete adoption of the CBET system is the continued perception from the private skills providers that the market is distorted to favor VETA run schools. What results are graduates with little applicable understanding of the concepts they are exposed to in training, leaving them ill prepared to enter the workforce.

Additionally, the existing skills delivery system does not have a strong mechanism to ensure quality. Outside of a quality assurance framework, VETA cannot demonstrate how they monitor and evaluate the institutions under its supervision. What results are institutions with inadequate facilities, equipment or staff, but certifications from VETA which allows them to operate.

Impact of Tanzania's Existing Skills System on The Global Competitiveness of Tanzania's Employers

According to the World Economic Forum's 2008 Global Competitiveness Report (GCR), Tanzania ranks 104th out of 131 countries in overall competitiveness. Tanzania ranks last amongst the benchmark countries identified in this report in the categories of Technological Readiness, Business Sophistication, and Higher and Tertiary Education. However, Tanzania ranks higher than all benchmarked countries



except Australia and the UK in labor market efficiency15.
According to the GCR, the ten most problematic factors for doing business[16] in Tanzania are as follows:

- Inadequate supply of infrastructure 17.1%
- Access to finance 14.7%
- Tax rates 11.3%
- Corruption 10.7%
- Tax regulations 10.0%
- Inadequately educated workforce 9.3%
- Poor work ethic in national labor force 6.2%
- Inefficient government bureaucracy 5.9%
- Crime and theft 5.1%
- Inflation 4.4%

Of these ten problematic factors, five are related to, or have an impact on Tanzania's labor force issues:

- Tax rates 11.3%
- Tax regulations 10.0%
- Inadequately educated workforce 9.3%
- Poor work ethic in national labor force 6.2%
- Inefficient government bureaucracy 5.9%

Similarly in the GCR's pillars for higher education and training, and labor productivity[17] all but one of Tanzania's indicators are deemed to be competitively disadvantaged. These indicators are found in the following tables:

[15]According to the World Economic Forum's Global Competitiveness Report, Labor Market Efficiency measures the allocation of workers in their most efficient use in the economy. In productive economies workers are allocated appropriately and provided incentives to give their best effort in their jobs. Efficient labor markets must also ensure a clear relationship between worker incentives and their efforts, as well as the best use of available talent.

[16] In the Global Competitiveness Report a survey is conducted. From a list of 14 factors, respondents were asked to select the five most problematic for doing business in Tanzania and to rank them between 1(problematic) and 5.

[17] The GCR measures competitiveness through 12 pillars, of which Higher education and training is Pillar 5 and Labor Productivity is Pillar 7.. In each pillar indicators are ranked globally. In 2008 131 countries were compared, so a ranking of 1 is the best with 131 being the least competitive.

Global Competitiveness Report Indices related to Labor Productivity	
7th Pillar: Labor Market Efficiency	
Index	**Rank (out of 131)**
Cooperation in labor-employer relations	66
Flexibility of wage determination	60
Non-wage labor costs	61
Rigidity of employment	122
Hiring and Firing Practices	77
Firing Costs	54
Pay and Productivity	100
Reliance on Professional Management	52
Brain Drain	88
Female participation in labor force	4

Global Competitiveness Report Indices related to Skills and Training	
5th Pillar: Higher Education and Training	
Index	**Rank (out of 131)**
Secondary Enrollment	130
Tertiary Enrollment	128
Quality of the Educational System	86
Quality of math and science education	110
Quality of management schools	112
Internet access in schools	106
Local availability of research and training services	81
Extent of staff training	92

Both the manufacturing and tourism sectors site the inability to function in business level English as an impediment to their competitiveness. In manufacturing, English proficiency is important to read and operate most machinery. For the tourism sector, English proficiency is even more important. Those working in thjs sector often interact with international clientele and, according to actors in the sector, must be able to have a high degree of business-level English proficiency to provide the expected high-levels of client satisfaction expected globally.

In order for Tanzania to improve its competitiveness and labor market productivity and efficiency, the country must improve its skills base, increase secondary enrollment, (thereby exposing students to English language education), and improve the quality and quantity of vocational and technical education graduates, and lower non-wage labor costs. Doing so will enable its economy to respond to changes in the global economy by efficiently allocating, and when necessary re-allocating workers to higher growth industries.

Impact of Tanzania's Existing System on the Manufacturing Sector

Sector Analysis for Manufacturing

Tanzania's manufacturing sector contributes 8% of the country's GDP, and employs over 259,000[18] workers. According to a 2002 UNIDO report, Tanzania's value added per employee for the sector is $1862, (compared to $6769 for Kenya, $31082 for South Africa, $7503 for Mauritius and $6802 for India).

Summary Responses from Skills Gap Survey

- 52.5% agree the most important factor to future company success is sourcing products to global markets
- 75% stated finding technical staff is not so difficult[19]
- 70% stated finding managerial staff is not so difficult
- 77% state skilled labor is important to the sustainability of business growth
- 82.5% state they have not lost experienced staff to competition[20]
- 82.5% state an interest in partnering with skills providers to develop staff skills
- 67.5% source unskilled graduates,
- 72.55% budget less than 20% of revenue for skills development, with 80% of those funds directed toward basic skills development,
- 47.5% hire under 10 employees per year, and of those 57.5% require additional training upon hire,
- 57.5% provide apprenticeship opportunities,

[18]Tanzania National Bureau of Statistics, Ministry of Planning, Economy and Empowerment, " Inegrated Labour Fource Survey (ILFS) 2006

[19] Of these respondents, they sited sourcing technical staff from Universities. These businesses also suffer the consequence of high turnover due to hiring University Graduates who feel their positions are too menial, or they suffer from higher operating costs to accommodate the higher salary demands of this educated labor group.

[20] Manufacturers state that they typically lose qualified technical staff to other industries, not to competitors within their industry

- 55% state that VETA is very capable to prepare trainees for employment
- 82.5% state they have not lost experienced staff to competition,
- 82.5% state an interest in partnering with skills providers to develop staff skills,
- 70% liaise with skills providers in developing curricula and standards,
- 75% realize the SDL goes to VETA,
- 70% state labor costs as the most important line item to manage

Skills gap

Of the skills currently provided by technical and vocational training, the following were listed as additional skills not currently addressed in the Manufacturing sector:

- Improved production techniques,
- Improved food processing and manufacturing techniques,
- Engineering instrumentation,
- Distribution and Logistics,
- Corporate Management, Budgeting, and Business Acumen,
- Strategic Management and Analytical Skills
- Human Resource Management.

Manufacturing Anecdotal Illustration

A Dar es Salaam-based manufacturing company:

A successful entrepreneur who is highly respected within the private sector runs this manufacturing company. However, despite the person's stature, the entrepreneur laments that it is increasingly difficult to find the appropriately skilled labor to run the equipment in the manufacturing plant. As the firm attempts to upgrade its technology to improve operational efficiencies, or diversify product mix, the skill levels of VETA graduates do not keep pace. This person suggests that many candidates have the qualifications on paper, but lack the 'on the job' skills to perform adequately. The entrepreneur also suggests that though candidates have been identified to have the 'head knowledge' to perform on the job, they lack the drive and motivation to start at junior levels within the company.

This business owner attributes this difficulty to the mismatch between skills required and skills taught in VETA schools. The manufacturer has not been able to source VETA candidates that can operate the machinery in the plant, so the plant has had to source candidates from the Dar es Salaam Technology Institute (DTI). DTI, is a technical college overseen by NACTE, and provides a higher-skilled worker. However, graduates coming from DTI are not typically mechanical operators (the level the manufacturer requires). Instead, they are typically mechanical technicians (a level above the needs of the business). By recruiting over-qualified workers to operate machinery in the plant, the entrepreneur has compensated for the lack of skills normally found from a VETA school, but this

has also increased operational costs because the employee must be paid more, and the plant must also mitigate against employee turnover if these workers leave for other jobs in the industry.

Finally, when adding these extra cost burdens to already high operating costs and taxes, this business struggles to generate enough profits to reinvest in new equipment and product lines. The entrepreneur is very concerned that additional tax levies imposed by the government could force the business to become uncompetitive.

Impact of Tanzania's Existing System on the Tourism Sector

Sector Analysis for Tourism

In 2006, the tourism sector in Tanzania contributed 16% of the country's GDP, and employed 290,000 workers. Despite the contribution, operating costs in Tanzania are almost two times that of neighboring Kenya. The cost of labor is a contributing factor to this disparity in operational costs. In the World Economic Forum's 2008 Travel and Tourism Competitiveness Report, Tanzania ranked 88th out of 130 ranked countries in overall competitiveness.

Summary Responses from Skills Gap Survey

- 70% strongly agree that access to skilled labor is important for business sustainability and growth
- 42.5% stated labor costs are rising in line with sales, 22.5 stated costs are rising faster than sales
- 62.5% stated labor costs[21] as number one expense, (followed closely by communication and marketing)
- 55% stated finding technical staff is easy or average
- 65% stated finding managerial staff is average to difficult
- 35% suggest more coordination is required between themselves and providers to produce better graduates
- 47.5% budget up to 20% of revenue for skills development
- More employees are sourced from private providers and NCT than from VETA certified schools
- Despite difficulty in sourcing qualified managerial staff, 80% did not feel it hindered investment in the sector

[21] factored into labor costs are human resource training, which includes skills development

Skills gap

Of the skills currently provided by technical and vocational training, the following were listed as additional skills not currently addressed in the Tourism sector:

- Improved Tourism Knowledge,
- Front-office Administration, Computing and Accounting,
- Improved Business acumen,
- Marketing,
- Operational (and budget) Management. Human Resource Management
- English proficiency

Tourism Anecdotal Illustration

A Dar es Salaam-based Multi-national Hotel:

This hotel employs 350 people and continues to accept qualified students from a select number of tourism training institutions. However, the hotel has found it increasingly difficult to accept these students because, in the hotel's view, they are inadequately trained. Of the students that go to this hotel for apprenticeships, only an average of 10% are qualified enough to be courted by the hotel for full-time positions.

To ensure the hotel has enough qualified staff, hotels have instituted their own training and recruiting methods. Hotels also actively recruit the top candidates from the tourism training institutions, and then put those candidates through their own training program. While this is an extra expense to the hotel, it is an expense that is necessary to ensure hotel staff are able to provide a high-level of customer service and technical training to meet the demands of international visitors to the hotel.

This hotel is very interested in seeing the new tourism college constructed, and has offered to provide input on curriculum development, as well as lecture when the facility is complete.

Recommendations

There are many paths to consider when addressing Tanzania's constraints. What follows are recommendations for ATE to advocate for based on; policy initiatives, private sector initiatives, and skills development initiatives. These categories were developed in consultation with ATE to assist in categorizing the recommendations into broader initiatives which target varying aspects of the skills development system in the country. A Recommendations Matrix can be referred to in Appendix 6. Some of these recommendations require coordination with others to succeed, while other recommendations can be implemented on their own.

- Significantly reduce the skills development levy and defer the costs of training to qualified enterprises, through certified skills providers.

This recommendation has three elements.

- In keeping with good international practice, the skills development levy should be reduced to 1-2%
- Introduce a skills development rebate system.
  Under this plan, enterprises that provide NACTE certified training are eligible to receive rebates against the cost of training.
- Introduce a skills development voucher system.
  Enterprises are also eligible to receive a voucher to defer some (or all of) the cost of training when they are trained by NACTE certified skills providers.

Recently Namibia has developed a similar recommendation to improve the state of vocational and educational development in its country by ensuring private sector participation in skills delivery, The Vocational and Skills Training Activity, a component of its recently signed Millennium Challenge Compact, demonstrates how Namibia has chosen to shift the delivery of its skiils training to the private sector. While details of the Compact are still in the private domain, information from the public domain suggests that funds raised from its National Training Fund (NTF) similar to Tanzania's SDL, will not be priviledged to the detriment of funding for private entities engaged in training. Moreover, efforts will be undertaken to support the private-training industry in order to respond to the training demands of Namibia's market economy.

- Propose the TVET Reform Act; a policy initiative that develops and recognizes a national Technical and Vocational Education & Training Strategy

Intended to unify the existing dual framework between vocational and technical education, an overall national strategy should be proposed which incorporates all skills providers into one TVET Act. Elements of the policy recommendation include:

- VETA assumes skills provision responsibilities only, and operates the existing VETA owned schools throughout Tanzania
- NACTE becomes TVET regulator and accreditation body, and is given responsibility to collaborate with private sector enterprises to maintain quality standards.
- Both private skills providers and government subsidized skills providers (e.g. VETA, NCT and others) must comply with the accreditation standards defined by NACTE.

- Transparently redistribute the skills development levy to all public skills providers

To ensure transparency and accountability of the use of the SDL, it should be redistributed to publicly funded vocational and technical skills providers, with a distribution based on national priorities. By doing so, the Ministry of Finance will be able to demonstrate that the SDL is being used to fund VETA, NACTE, the National College of Tourism, and other

public institutions responsible for skill development, and remove the doubt within the private sector that the SDL is being mismanaged.

- Establish a TVET National Advisory Board (TVETNAB)

The purpose of this NAB is to empower the private sector in guiding the proposed TVET reforms. This Board will be represented by the private sector's apex organizations, and have a majority of its seats filled by their designees. Among others, possible initiatives to be led by the Board include:

- Encouraging and strengthening a national apprenticeship program,
- In coordination with NACTE, establishing minimum skills requirements which can be incorporated into the National Skills Qualification Framework,
- In coordination with NACTE, propose the accreditation and certification of existing company-run training programs,
- In coordination with NACTE, establish an ongoing mechanism for monitoring performance and quality against TVET international good practices
- Representing the private sector's interests in future TVET policy discussions

- Support NACTE in implementing a National Qualifications Framework based on Competency Based Education and Training (CBET).

NACTE has previously proposed a qualifications framework but, because of the dual system that exists in Tanzania, it has not been implemented in its entirety. Similarly, both VETA and NACTE have designed CBET-based training, but their initiatives have not been in place long enough to judge their efficacy. With the TVET Reform Act, NACTE's previously proposed framework can be adopted as the nationally accepted standard for qualifications. The following table is a compilation of both VETA's and NACTE's existing qualifications standards, integrated into one unified framework for skills acquisition and skills upgrading.

Proposed National Qualifications Framework for Tanzania			
National Technical Award (NTA) and National Vocational Technical Award (NVTA) Levels	Certification Title	Competence Level Descriptors (short version/indicative version)	Implementing Org.

10	Doctorate	The holder of this qualification will be able to apply knowledge and understanding and do advanced research resulting into significant and original contributions to a specialized field. Demonstrate a command of methological issues and engage in critical dialogue with peers, able to work autonomously and in complex and unpredictable situations	University
9	Masters Degree	The holder of this qualification will be able to display mastery of a complex and specialized area of knowledge and skills, employing knowledge and understanding to conduct research or advanced technical or professional activity, able to work autonomously and in complex and unpredictable situations	University
8	Bachelors Degree	The holder of this qualification will be able to apply knowledge, skills and understanding in a wide and unpredictable variety of contexts with substantial personal responsibility, responsibility for the work of others and responsibility for the allocation of resources, policy, planning, executions and evaluation	University/Polytechnical Institute
7	Higher Diploma	The holder of this qualification will be able to apply knowledge, skills and understanding in a broad range of complex technical activities, a high degree of personal responsibility and some responsibility for the work of others	Technical Institute/College
6	Ordinary Diploma	The holder of this qualification will be able to apply skills and knowledge in a broad range of work activities, most of which are non-routine	Technical Institute/College
5	Technician Certificate	The holder of this qualification will be able to apply skills and knowledge in a broad range of activities, most of which are non-routine and able to assume operational responsibilities	Technical Institute/College
4	Basic Technician Certificate	The holder of this qualification will be able to apply skills and knowledge at routine level	Technical Institute/College
3	VETA Level III Certificate	The holder of this qualification will be able to carry out a broad range of occupational duties and tasks or specialized occupational duties and tasks, mainly complex and non-routine in wide variety of contexts. Considerable responsibility and autonomy are generally required, guidance and supervision of others are mostly required	VETA, NCT

2	VETA Level II Certificate	The holder of this qualification will be able to carryout a significant range of occupational duties and tasks or specialized occupational duties and tasks, some of which are complex or non-routine. Individual responsibility may be required and collaboration with others, working in groups, or teams are normally required	VETA, NCT
1	VETA Level I Certificate	The holder of this qualification will be able to carry out routine and predictable occupational duties and tasks under supervision.	VETA, NCT
Source: compiled by author from VETA and NACTE			

- Develop a labor and manpower system for skills upgrading, continuing education and advanced skills acquisition.

To address the vacuum of training that exists after basic skills acquisition, a labor and manpower system should be designed with partnership between the TVETNAB and the Ministries of Education and Labor to strengthen formal and informal apprenticeships, design and implement ongoing training modules which build on existing skills and allow for skills upgrading. As with all other courses, these advanced-skill courses will require NACTE certification, and can be delivered internally from employers, or outsourced to private skills providers.

- Strengthen ties between TVET graduates and the private sector through an online National Jobs Board, and improved career placement services

ATE should explore a partnership between the NAB and the existing Labor Exchange Center (LEC)[22], to coordinate stronger ties to formal employment for TVET graduates. Currently, the LEC links jobseekers with formal and informal employment by educating job seekers on demanded skills. Its role can be strengthened in the following ways:

- Establishing an online jobs board, which posts career opportunities from the private sector, and supports online searches allowing the private sector to identify qualified candidates.
- Supporting enhanced career placement services, and career counselors within TVET institutions to enable entering students opportunities to plan their careers more thoroughly.

-Cross-cutting Activities: Communicating the Messages

A comprehensive communication and outreach plan is a critical component to consider when recommending these policy, private sector and skills development initiatives. As such, ATE should carefully consider how its advocacy efforts can be packaged for maximum acceptance and adoption. The following goals could be considered when developing the communications and outreach strategy:

[22] The LEC is currently operated by the Ministry of Labor

- Communication:
  - How will ATE increase awareness of the proposed policy reforms, and when adopted, support the marketing plan for the new TVET system?
  - In what ways can ATE improve the perception of TVET in Tanzania?
  - What partnering institutions can collaborate with ATE to advocate for change, and through which mediums should these discussions take place?
- Outreach:
  - What role will the TVET National Advisory Board play in communicating ongoing policy and regulation reforms once these recommendations are adopted?

- Expected Outcomes

The following outcomes are expected from the proposed recommendations.

- A national TVET strategy, based on international good practice, which is responsive to the needs of the private sector, improves quality, encourages competition, and improves the overall competitiveness of Tanzania
- A more engaged private sector with ownership and influence of the national technical and vocational skills delivery and monitoring process.
- Businesses that are empowered to leverage the resources they invest in skills development to make decisions on how the skills they need is acquired.
- Businesses will have access to skilled graduates, with a minimal need to be re-trained in basic skills
- A measurable performance criteria to maintain quality of instruction and output
- Graduates will have access to world-class training that is responsive to local, regional and sectoral standards and needs
- Increased opportunities for job creation and formal employment

Conclusions

This assessment has discussed the constraints Tanzania faces in its existing skills delivery system, and the many opportunities to restructure and position the system to contribute to the country's overall competitiveness objectives.

The recommendations outlined in this assessment should be viewed as a roadmap for reform that allows Tanzania to benefit from existing systems and structures. Both VETA and NACTE are established institutions with clear objectives and missions. They have been established to address the same goals, a highly skilled Tanzanian workforce. Operating separately, their results have been mixed. As a combined organization, reporting to the same Ministry, and operating under a unified TVET strategy, they will be able to leverage their inherent strengths to meet the needs of Tanzanian businesses.

The Government of Tanzania also has an opportunity to leverage the Parliamentary restructuring of 2008 as a catalyst for these proposed recommendations. Now that VETA and NACTE report to the same Ministry, economies of scale and efficiencies should be able to be realized which allows VETA to focus on skills delivery, and NACTE on the regulation and certification of skills development.

The Ministry of Finance will be an important partner in these recommended reforms by ensuring that going forward, the skills development levy is transparently distributed to the appropriate public institutions responsible for skills development in the country.

Working together, with support of a National TVET Advisory Board, Tanzania can improve its skills delivery system, and meet the needs of its private sector.

The following appendices present supplemental and supporting data for this assessment. The appendices are comprised of;

- a skills development good practice indicator matrix by country,
- a comparison of the education systems for each country,
- the complete TVET comparative framework (which was summarized in the main report),
- a categorized table displaying the existing skills taught in Tanzania,
- Best practice country profiles, and
- A recommendation matrix for ATE which summarizes the constraints, recommendations and intended partner or audience for advocacy.

Together with the Skills Development Assessment, these appendices should be used to provide data which supports the arguments found therein.

APPENDIX 1: Skills Development Best Practice Indicators by Country

General Country Indicators							
Benchmarked Indicators	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
GDP	$11.98b	$21.18b	$254.99b	$6.45b	$768.18b	$2,345.01b	$906.27
Avg Growth Rate	6.20%	6.10%	4.90%	5.60%	4.00%	2.90%	9.20%
Per capita income	$319	$603	$5,381	$5,450	$37,434	$38,850	$817
Public education expenditure as a percent of GDP	2.2 (2006)	6.5	5.1	4.7	4.8	5.5	3.7
% of tax applied to skills development levy	6%	2%(in tourism only)	1%	1%	1%	1%	1%
% of firms offering formal training	36.48%	48.45%	37.60%	62.05%	81%	65%	15.93%
% of skilled workers receiving training	8.90%	28.40%	25.90%	data unavailable	12.50%	61%	36%-42%
Price and Productivity Rank	100	88	92	87	40	24	46
Total Economically active population (thousands)	17,827 (2001)	15,750 (1999)	16,192 (2003)	524 (2005)	10,492 (2005)	29,517 (2005)	403,234 (2001)

TVET Specific Indicators							
Benchmarked Indicators	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
% of GDP applied to TVET	0.06% of national budget (06)	.07% of national budget (06)	1.7% of national budget (07)	2% of national budget (07)	.07% of national budget (07)	1.5% national budget (07)	.015% of national budget (05)
Total Unemployment by Level of Education (thousands) ISCED-76 education level 2 – advanced secondary education including some TVET students	data unavailable	data unavailable	1,678 (2003)	6.6 (2005)	277.1 (2005)	231.3 (2005)	data unavailable
Unemployment of ISCED-76 education level 2 as a % of total economically active population	data unavailable	data unavailable	10.4%	1.3%	2.6%	0.8%	data unavailable
Total Unemployment by Level of Education (thousands) ISCED-76 qualification level 3 – Some tertiary education including some TVET students	data unavailable	data unavailable	1,845 (2003)	23.4 (2005)	156.8 (2005)	615.9 (2005)	data unavailable
Unemployment of ISCED-76 education level 3 as a % of total economically active population	data unavailable	data unavailable	11.4%	4.5%	1.5%	2.2%	data unavailable
Avg tenure (in yrs) of skills provider instructors	Will provide from survey VETA responses	data unavailable	data unavailable	data unavailable	data unavailable	24% of VET teachers have worked for at least 5 years and 40% of VET teachers 10 years	61% of teachers have less than 12 years of schooling

Avg work/industry exp of skills provider instructors	Form IV education, Full Technician Certificate (FTC) or Level III VETA certificate, minimum of three years of industrial experience	data unavailable	data unavailable	data unavailable	data unavailable	Teachers must have relevant experience and Certificate IV in Training and Assessment	1/3 no industrial experience
% of Firms Identifying Labor Skill Level as a Major Constraint	19.68% (2006)	27.64% (2003)	35.49% (2003)	42.93% (2005)	data unavailable	data unavailable	14.47% (2006)

Tourism Specific Indicators							
Benchmarked Indicators	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
Contribution to GDP	16.0%	5.6%	8.8%	8.5%	4.3%	4.7%	3%
Employment numbers	290,000	270,000	337,200	33,700	402,800	300,000	8,410,000
Employment growth 2004-2005 Hotel and Restaurant Sector	data unavailable	data unavailable	12.6% (2002-2003 figure includes Wholesale and retail trade; repair of vehicles and household goods)	8.8%	2.9%	-2.1%	data unavailable
% of revenue budgeted for human capital development	Less that 20% (for over 47% of sample)	2% of all profit for restaurant hotels, leisure	data unavailable	data unavailable	data unavailable	data unavailable	data unavailable

Skill Taught in Current TVET System	Ordinary Level: Culinary Art, Food and Beverage Services, Accommodation Operations-including Housekeeping Front Office Management, Tour Guide Operations. Advanced Level: Diploma I and Diploma II	Hotel Mgmt, Tour Operations	Tourism Support Services	Hospitality Mgmt, tourism mgmt, restaurant services	Hospitality Operation and Studies of Tourism	Hospitality Operations and Studies of Tourism, Food Services	Hospitality Operations and Studies of Tourism
Skills Needed (for TZ only)	Hard skills: Improved Tourism Knowledge, Front-office Computing and Accounting; Improved Business acumen, Marketing; Administrative (hotels) Skills, and Operational (& budget) Management Soft skills: Organizational commitment, Business Ethics, Timeliness; Customer care, Travel Consultancy; Cooperation with Corporate clients; Integrity, Honesty, Reliability and Professionalism						

Manufacturing Specific Indicators							
Benchmarked Indicators	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
Contribution to GDP	8%	14%	19.10%	21.60%	11%	26%	17%
Total Manufacturing Value-Added/Employee (USD)	1,862 (estimate not from UNIDO)	6,769 (2004) 3,337 (estimate not from UNIDO)	31,082 (2004)	7,503 (2002)	data unavailable	53,491 (1995)	6,802 (2003)
Total Manufacturing Wages/Employee (USD)	data unavailable	data unavailable	3,440 (2004)	3,296 (2002)	23,782 (1995)	26,677 (1995)	1,529 (2003)
Total Manufacturing Value-Added/Wages/Employee (USD)	256% (1990s estimate)	285% (1990s estimate)	904%	228%	data unavailable	201%	445%
Employment numbers	245,000	216,000	1,166,600	150,000	1,076,600	3,500,000	4,860,000
% of Firms Identifying Labor Regulations as a Major Constraint	4.82%	22.55%	32.89%	27.94%	data unavailable	data unavailable	9.16%

% of revenue budgeted for human capital development	73% of sample spend under 20%	data unavailable	data unavailable	data unavailable	data unavailable	data unavailable	data unavailable
Skill Taught in Current TVET System	Mechanical, Civil and Electrical Engineering, Textiles, Printing	Mechanical Engineering, Clothing Technology, Construction	Manufacturing, Ceramics and textile production, Jewelry Manufacturing, Furniture	Auto Engineering Electronics, Telecommunications Industrial Engineering Textile Production Wood Technology	Furniture Making, Metal & engineering industry, Plastics, rubber & cable making Electro-technology	Manufacturing, Welding, Construction, Metal Production	Electronics, Building & Road Construction Ceramic Technology, Tanning, Rubber Technology
Skills Needed (for TZ only)	Hard skills: Improved production, processing and manufacturing methods, Engineering instrumentation, ICT skills, Budgeting skills, Strategic management skills, Corporate management and business acumen skills, Human Resource management, Distribution and Logistics skills, Soft skills: ability to work independently and proactively, leadership skills, strong technical foundation (speaks to educational foundation), interpersonal skills, analytical skills, time mgmt skills						

Appendix 2: Country Education System Comparison

Comparison of VET Systems	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
Type of system	P/O/A/T	P/S/T	G/F/H	P/O/A/T	P/S/SS/T	P/O/A/T	N/P/O/A/T
Years of schooling	7/4/2/2,3	9/4/08	10/3/2-4		7-8/2/2/4		1-2/6/4/2/3-5
Derivative country system	U.K.	U.S.A.	SA	U.K.	USA	U.K.	U.K.
Primary							
Is policy universal education?	yes	yes	yes	yes	yes	yes	yes
Language of instruction	Kiswahili	English	various	English	English	English	Local
Secondary							
% entering Secondary	67.5%	92%	87%	67%	98.10%	98.10%	75%
Language of instruction	Kiswahili	English	mixed	English	English	English	Local/English
Is higher secondary fee based?	No-public/yes-private	yes	n/a	No	No	No	Currently
Vocational							
% entering Vocational training institutions	n/a	0.60%	6%	n/a	n/a	n/a	1.70%
Language of instruction	Kiswahili	English	mixed	English	English	English	Local
Is public vocational fee based?	Subsidized	Subsidized	Subsidized	Subsidized	Subsidized	Subsidized	Subsidized
Is Competency Based Training used?	Phasing in	Yes	Phasing in	Formative	Yes	Yes	Formative
Recognition of prior learning?	Formative	yes	?	Formative?	Yes	Yes	Formative
Curricula benchmarked internationally?	No	Some	Some	Some	Leader	Leader	Formative
National Qualifications/Assessment ?	Yes	No	Yes	Yes	Yes	Yes	Yes/ mixed
Employer led sector-working committees?	No	Yes	Yes	n/a	Yes	Yes	Beginning
Employer input for curricula/standards?	weak	good	good?	n/a	good	good	weak/improving
Response to new technologies							

Public VET	weak	fair	good	weak	good	good	weak
Private	good	good	good	good	good	good	good
Quality control over institutions							
Public VET	weak	fair	new2000	weak	good	good	poor
Private / NGO	weak	weak	new2000	weak	good	good	varies
Financing by Industry levy?	6% payroll Tax	2%	1%	1%	1%	1%	1%
School-industry partnerships	yes, informal	Yes	Yes	yes	Yes	Yes	Mixed
Is part-time and upgrade training available?							
Public VET	no/weak	yes	yes	yes	yes	yes	mixed
Private / NGO	yes/weak	Yes	yes	Yes	Yes	Yes	yes
Are internships encouraged/effective?	no	yes	yes	uncertain	Yes	Yes	increasing
Are proper work attitudes taught?	weak	significant	yes	yes	yes	yes	weak overall
Issues with teacher quality / effectiveness?	significant	modest	modest	modest	no	No	significant
Growth in industry run training programs?	Marginal	No	modest	Yes	no	no	significant
Worker export	No	High mobility	Moderate	Modest	High mobility	High Mobility	High mobility
Are there centers of excellence in Public VET?	no	yes	yes	yes	yes	yes	yes
Industry involved in public teacher refreshers?	some	yes	yes	some	mixed	yes	weak
Formal Industry absorption of graduates	low	moderate	good	good	good	good	low
Tertiary							
Language of instruction	English	English		English	English	English	Local/English
% entering tertiary	1%	3%	15.40%	17.10%	70%	70%	11.40%
Is English needed for mobility/employability?	Increasing	Yes	Helpful	Yes	Yes	Yes	Yes
Work-Based Training							
Apprenticeship system	Yes/Weak	Yes	Yes	Yes	Yes	Yes	Yes

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Has apprenticeship system been modernized?	proposed	no	Learnerships added	n/a	Yes	Yes	No
School-industry internship partnerships	Not effective	Effective	Mixed	Mixed	Effective	Effective	Re emphasis
Financing by industry levy?	No	yes, partial	partial	n/a	partial	partial	Formative
% of firms offering formal training	36%	48.45%	37.60%	62.05%	81%	65%	15.93%
% of skilled workers receiving training	9%	28.40%	25.90%	unavailable	12.50%	61%	36-42%
Informal apprenticeship (IA)	significant	significant	significant	yes	light	light	significant
Is recognition of prior learning available for IA?	formative	formative	formative	n/a	Yes	Yes	Formative
Demand to import workers for skills shortages	significant	light	moderate	light	light	light	strong internal migration
Employers views of public VET relevance	weak	good	fair	mixed	good	good	Weak/Mixed
Do employers over hire for skilled positions?	no	no	n/a	no	no	no	significant

Appendix 3: TVET Comparative Framework

TVET Comparative Framework by Country							
Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
1. What is the vision, definition of the position, role and mission for continuing training as a specific activity in the context of vocational training, workforce development and the employment market?	VETA Vision: "An excellent VET system that is capable of supporting national social economic development in a global context". VETA Mission: To ensure provision of quality VET that meets labor market needs, through effective regulation, coordination, financing, and promotion, in collaboration with stakeholders" NACTE Vision: The Vision of the National Council for Technical Education is to realize a well-organized, efficient and effective system of national qualifications and excellence in the delivery of technical education and training and the resulting output. NACTE Mission: The Mission of the National Council for Technical Education is to establish and operationalize policies, regulations and procedures for setting and maintaining standards and quality of technical education and training and advising the Government on the strategic development of the sector.	Continuing workforce training in Kenya is well developed. It is supported through the Ministry of Labor and HRD by continuing labor studies and support for SWCs. Although the mandate of the MLHRD to "produce skills necessary to accelerate economic creation in Kenya" is broader than continuing workforce "skills upgrading", it is well covered in the mission of the Ministry, "to secure the greatest possible improvement in the quality and efficiency of industrial training and ensure an adequate supply of properly trained manpower at all levels in industry".	RSA is sensitive to need for high productivity in its formal workforce as it has been ranked highest in sub-Saharan Africa & even superior to China. However, employer spending on workforce skills upgrading has been comparably low to most similar-ranked countries. Also, South Africa's formal industry sector has been faced with significant skill shortages. This has resulted in development of 23 industry SETAs overseeing the development of quality control and relevant skills. The major thrust of the SETAs is to help maintain and improve productivity (and quality) through workforce training.	IVTB's vision is "Leading Training and Skills Development for Employability" with a mission to "Provide relevant training for the development of a flexible and skilled workforce. Continuing workforce training is considered an integral component developing a flexible and skilled workforce.	In Australia, continuing training is highly regarded in recognition of a need for continuous, lifelong learning keeping abreast of changing technology and maintaining a competitive workforce.	Improving and maintaining Industry competitiveness is a dominant force for continuing workforce training. A close second consideration is retaining skilled workers through promoting skill currency and personal growth. Increasing worker mobility and articulating skills competencies and quality to other E.U. member countries and industries is also a consideration.	India seeks to enable all of its population to benefit from economic growth. The Central Government's vision is to develop a new perspective for VET increasing acceptance and training opportunities beginning with 10-12 of "work-centered" curricula in the education system and improved quality / relevance of VET training. The need for Life-long learning is recognized and well developed in the higher tertiary system, however it is formative across public based. VET. The booming economy has created severe skills shortages in the VET skills sector which has encouraged employers to focus on skills development through seeking greater participation with government in development of skills, standards, training and assessment and work experience and in establishing their own standards and training systems where government has been slow to respond. Continuing VET training to employer and industry needs rests mainly with employers and employer associations with some contracting to NGOs, and private providers. There is a tendency in some skill areas to seek high international standards and international examination. In some fields, such as the construction trades, employers are seeking a system for skills assessment / recognition.

ASSOCIATION OF TANZANIA EMPLOYERS (ATE)
Skills Development Assessment

Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
2. Information on the employment market in general and on the demand for training and analysis of skills requirements in particular.	Small traditional formal sector with little employment growth but demand growing with new/renewed industries, such as tourism, mining and gem value added. Valid emphasis on dominant informal sector. Skills shortages in new industries.	Emerging from stagnant economy created surplus for formal sector with some absorption by migration. Encouragement for more focus on informal sector	South Africa has a moderate growth economy but the country is faced with significant skills shortages in the formal sector. Trend to capital-intensive formal industry to increase competitiveness with emphasis on skills needed to support it. .	The Human resource Development Council holds responsibility for skills demand and the Mauritius Qualifications Authority is responsible for skills qualifications. There has been criticism by employers that the present education system is not providing relevant graduates and that for some growth industries, such as tourism, training programs enrollments cannot satisfy the demand for graduates.	Currently has a moderate growth economy. Demand for skills near in balance with supply and attention is given to remaining competitive. Skills Councils and Industry Advisory Bodies apprise government (s) on skills need. Local school-industry liaison keeps local institutions apprised of changing local conditions / needs.	The UK has a moderate growth economy. There has been a recent history of significant skills shortages, which has been addressed partly with a revised and expanded apprenticeship system. Currently, demand for skills is reflected some skill shortages but nearing balance in supply. Migration from other E.U. countries has contributed to balancing supply.	Hyper economy has absorbed existing skilled workforce forcing focus on training new workers and introduction of new technologies. Major skills shortages some sectors exist despite surplus unskilled and OJT . 93% workers are in the informal sector and many skills, such as plumber often are learned informally. There is a perceived miss-match in training provided by public TVET institutions in some states due to lack of communication with employers. This is being addressed with programs to encourage devolution of authority to industry-led institutional management boards, school-industry partnerships, improved accountability and currency training for teachers and revised curricula with industry input. Recognition of prior formal and informal learning is beginning to be addressed and use of Competency Based Training (CBT) is growing.

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Skills Development Assessment

Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
3.Are there Classifications for jobs and identification of professional sectors?	NACTE has proposed a National Qualifications Framework that includes levels 1-10, but it has not been successful in incorporating VETA levels 1-3.	Yes. This is under the aegis of the MLHRD, which handles the Kenya Occupational Classification System. However, the certification system is not yet well articulated among diverse training providers or examination bodies. Skill competencies are identified through government-institutional-industry collaboration but 10 ministries go their own directions on this.	Yes. The South Africa National Qualifications Framework (NQF) handles this with input from the SWCs. Skills competencies are derived with full participation of employers.	Yes, about 50 qualifications are currently established.	Yes. The Australian Qualifications framework provides the hierarchy of educational qualifications. Few qualifications outside the system are accepted by employers or for entry to tertiary study. The main exceptions are IT vendor certifications and the International Baccalaureate. The framework divides all qualifications into three sectors, roughly correlating with the type of institution offering the courses.	The National Qualifications Framework has 9 levels of classification beginning with entry / access level certificates through 5 NVQ levels including higher national diplomas. There are over 4000 qualifications within the NVQ plus . In addition , there are 112 other awarding bodies and as many as 13,000 qualifications outside the NQF.	Yes

Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
4. What is the development of training provision and the outcome of training (corresponding certificates, diplomas and qualifications)	National / international & industry certificate levels, diplomas degrees	National / international & industry certificate levels, diplomas degrees	National / State / industry / international certificate levels, diplomas degrees	The NQF is a 10 level system starting with the Certificate of Primary education at Level 1 up to PhD at level 10. TVET and workplace education may earn certificates and diplomas.	TAFE and higher education form a continuum from certificates through diplomas and degrees. Courses at the VET end tending to be short and practical and delivered by TAFE at the certificate or diploma level. Courses at the Higher Education end being 3 years or longer, academic and delivered by universities. However, there is significant overlap as TAFE may offer degrees and universities may offer certificates and	In the U.K., the system of qualifications is well defined and regulated. The NVQ provides a hierarchy of competencies and allows for credit banking, assessment of prior learning and laddering to higher qualification levels. All NVQ levels are developed and validated with full employer participation. In	Continuing training in India, depending on the State, tends mainly to be provided by employers, employer associations and private / NGO trainers. Generally, public sector TVET institutions have tended not to be involved but this is changing with improving institutional outreach to employers and increasing evolution of decision-making

					diplomas. There has been a strong push to articulation for laddering from TAFE to University programs. A process of recognition of prior learning is well advanced to allow competencies gained through work or other experience to be assessed and recognized.	addition to the national qualification framework, there are 13,000 other qualifications and a system for evaluation, articulation and recognition of prior learning creating mobility into the NVQ hierarchy.	and revenue generating autonomy to public institutions. Advanced certification may be international or industry generated (e.g.: IT credentials, or advanced machinist / tool-die makers) or associated with the little-used national apprenticeship and NQA system.

Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
5. Who implements TVET programs, designs training, controls quality control and conducts impact evaluations and tracer studies? How is the information validated?	Tanzania is under a dual system. VETA regulates, certifies finances and delivers training for vocational education, and NACTE regulates and certifies technical education through a network of technical skills providers. Both agencies conduct tracer studies, but their frequency is too irregular due too capacity constraints.	This occurs across 10 ministries. SWCs have been established in industry clusters to address training needs.	SETAs organize and implement worker skills upgrading. They broker 80% of the monies allocated to training, apprenticeship and learnership programs while the national Skills Fund (NSF), which disperses the monies to increase skills deemed a national priority, handles the remaining 20%.	Some industry sectors are establishing training programs and some private / NGO training bear international certification / accreditations. However, the government system for TVET comprises the Industrial Vocational Training Board (IVTB), the Mauritius Qualifications Authority(QA) and the Human Resource Development Council (HRDC). IVTB boasts it's management system is ISO 9001-2000. It runs 12 training centers offering	Australia's VET is provided by registered training organizations, both private and public under the aegis of the Australian Quality Training Framework, Australian Qualifications Framework and Industry Training Packages which set assessment standards for vocational qualifications. The states and territories are responsible for public delivery	The UK governments have delegated the qualifications system to several national bodies. Together, they are responsible for setting standards, designing and regulating qualifications, ensuring quality and funding and planning the delivery of vocational education and training. The Qualifications and Curriculum Authority (or equivalent in Scotland) handles standards and quality across all qualifications except university degrees. It: manages the national assessment system, develops, regulates and monitors the national qualifications system; provides national data and monitors the activity of awarding bodies.	Public TVET programs are implemented at the state level, often a centralized system with little autonomy or accountability passed down to the individual institutions. Some states subsidize TVET training by approved NGOs. Private TVET trainers usually are licensed / approved under each state's Department of Labor (or equivalent) and monitoring varies. In many states, there is little accountability of public TEVET training or of personnel (even

				courses in 50 different fields. The QA certifies training and the IVTB evaluation and tracer studies.	and regulation of providers.	Diverse training providers train students for the national qualifications. As well, an apprenticeship system exists for workforce training. Awarding bodies, such as Exexcel and City & Guilds are responsible for the design and assessment of vocational education and training qualifications. The Learning Skills Council (and equivalents) is responsible for funding and planning education and training for over 16 year olds with a goal to raise participation and attainment through high quality education and training which puts learners first. The council has funds for: further education; work-based training; workforce development; adult and community learning and colleges of further education. OFSTED, a government department to help improve quality and standards through independent inspection and regulation for ages 16-19. As well, the Adult Learning Inspectorate addresses quality of education and training for adult learners.	attendance of teachers) although public TVET examination in often statewide. Although many private providers are questionable, professionalism is developing in some skill sets through professional / industry associations (as in IT). Some employers run their own TVET institutions (e.g. Tata) to supply their own and value chain partner needs. Some of the NGOs (e.g. Don Bosco, Mafatlal) have sterling reputations earned through close partnership with employers for internships, curricula development /skill needs identification and effectiveness evaluation. New initiatives are under way to have employers assume management of public TVET with local autonomy and retraining or administrators will include improving accountability and quality and tracer

							studies. Nationally, a variety of research NGOs address TVET training and quality.

Comparator	Tanzania	Kenya	South Africa	Mauritius	Australia	UK	India
6. Where are TVET decisions made and implemented – (at local, national and intermediary levels?)	Decisions are made at a national level but decisions on implementation are made and carried out on regional / district level.	10 Ministries are involved in separate skills development areas. TVET decision levels vary but can be at national level for policy and funding, through SWCs for industry sectors and even at institutional - industry partnership levels.	SETAs have major responsibility for workforce skills upgrading. Each SETA must work our a sector skills plan and implement it by: starting learnerships; approving workplace training plans from employers; giving funds to employers, trainers and workers; and watching over education and training in their sector. Although also supported by the National Skills fund, SETAs may also determine skills development levies on the firms, collect them and hand them out. Other TVET decision levels are National, for policy, quality assurance, coordination and some funding and state levels, for some institutional program funding.	National level for public sector. There seems to be some industry movement to industry organized training - notably with hotels creating their own academies.	National and State levels are involved in the TVET decision making process through 10 national level Skills Councils and a network of local Industry Training Advisory Bodies (state level) dominated by employers which provide information on industry trends, future skill needs and training requirements. Industry input and delivery partnership is also sought at the local level by VET institutions.	The decision system is designed to be employer-led. The Department for Education and Skills oversees the development of education and training policy. The Learning Skills Council handles all post-compulsory learning below the level of higher education. Sector Skills Councils are responsible for development of occupational standards, occupational mapping and functional analysis, and facilitating training targets. There are also training and inspection bodies. Scotland tends to have a parallel system but England, N. Ireland and Wales tend be amalgamated.	Each state controls its education system. Central government may influence through directed funding and moral persuasion. India has research and policy issue development " think tanks" supported by federal funding which are influential. The TVET national qualifications system can serve to coordinate and examine but has been struggling to keep pace with modernization. In many industry sectors, NGOs are taking the lead. Due to severe skills shortages and quality /relevance concerns, to determine, develop and deliver TVET training and skills recognition / transferability. It is possible for a worker to "ladder up" from certificates to diplomas but lack of part-time training opportunities often makes this difficult.

Appendix 4: Skills Taught in Tanzania (by category)

VOCATIONAL AND TECHNICAL SKILLS TAUGHT IN TANZANIA			
OCCUPATIONAL GROUP	**PROGRAM (OCCUPATIONS)**	**CERTIFYING BODY**	**NTA LEVEL**
Agriculture and Food Processing	Crop Production	VETA	1,2,3
	Animal Production	VETA	1,2,3
	Food Processing	VETA	1,2,3
	Agriculture Waste and Envirnoment Management	VETA	1,2,3
	Diary Products Making	VETA	1,2,3
	Butchery	VETA	1,2,3
	Sugar Cane Production	VETA	1,2,3
	Fruit and Vegetable Preservation	VETA	1,2,3
	Fishery	VETA	1,2,3
	Aquaculture	VETA	1,2,3
	Fisheries Science and Technology	NACTE	4,5
	Forest	NACTE	4,5,6
	Wildlife Management	NACTE	4,5,6
	Masterfisherman	NACTE	4,5,6
	Fish Processing, Marketing and Quality Contol	NACTE	4,5,6
	Marine Operations	NACTE	4,5,6
Automotive	Motor Vehicle Mechanics	VETA	1,2,3
	Auto-Electrical	VETA	1,2,3
	Agro Mechanics	VETA	1,2,3
	Panel Beating	VETA	1,2,3
	Diesel Truck Mechanics	VETA	1,2,3
	Truck Mechanics	VETA	1,2,3
	Automobile Engineering	NACTE	4,5,6
	Motorcycle Mechanics	VETA	1,2,3
	Car and Van Drivers	VETA	1,2,3
	Bus Drivers	VETA	1,2,3
	Tractor Operator	VETA	1,2,3
	Heavy Truck/Lorry Drivers	VETA	1,2,3
	Lifting Truck Operator	VETA	1,2,3
	Farm Machinery Operators	VETA	1,2,3
	Earth Moving Plant Operators	VETA	1,2,3
	Crane and Hoist Operators	VETA	1,2,3
	Air-Craft Maintenance Mechanics	VETA	1,2,3
	Pump Mechanics	VETA	1,2,3
	Mining Plant Operators	VETA	1,2,3
	Locomotive Engine Drivers	VETA	1,2,3
Civil	Plumbing and Drainage	VETA	1,2,3
	Masonry and Brick Layering	VETA	1,2,3
	Carpentry and Joinery	VETA	1,2,3
	Painting and Sign writing	VETA	1,2,3
	Road Construction	VETA	1,2,3
	Civil Drafting	VETA	1,2,3

	Cabinet Making	VETA	1,2,3
	Upholstery	VETA	1,2,3
	Boat Making	VETA	1,2,3
	Cane Furniture Making	VETA	1,2,3
	Wood Carving	VETA	1,2,3
	Stone Cutting	VETA	1,2,3
	Architecture	NACTE	4,5,6
	Performing Arts	NACTE	4,5,6
Clothing and Leather Products	Tailoring and Dressmaking	VETA	1,2,3
	Hand Looming	VETA	1,2,3
	Finishing Craft	VETA	1,2,3
	Textile Machine Operators (Spinning)	VETA	1,2,3
	Textile Machine Operators (Weaving)	VETA	1,2,3
	Textile Machine Operators (Processing)	VETA	1,2,3
	Furrier	VETA	1,2,3
	Garment Designer	VETA	1,2,3
	Shoe and Leather Goods Making	VETA	1,2,3
Commercial Services and Business Development	Secreterial	VETA	1,2,3
	Registry Clerks	VETA	1,2,3
	Sales and Promotion	VETA	1,2,3
	Insurance	VETA	1,2,3
	Banking	VETA	1,2,3
	Human Resource Management	NACTE	4,5,6,7,8
	Industrial Relation	NACTE	7,8
	Politics and Management of Scial Development	NACTE	7,8
	Economic Studies	NACTE	7,8
	Ordinary Diploma in Development Planning	NACTE	6
Cosmotology	Hair Dressing	VETA	1,2,3
	Facial Make-up	VETA	1,2,3
	Body Massage	VETA	1,2,3
	Manicure and Pedicure	VETA	1,2,3
	Body Waxing	VETA	1,2,3
Electrical	Domestic Electrical Installation	VETA	1,2,3
	Industrial Electrical Installation	VETA	1,2,3
	Motor Rewinding	VETA	1,2,3
	Refrigeration and Air Condition	VETA	1,2,3
	Electronics	VETA	1,2,3
	Office Machine Mechanics	VETA	1,2,3
	Telegraphic Assistants	VETA	1,2,3
	Electrical Lines Installation	VETA	1,2,3
	Transformer Installation and Maintenanice	VETA	1,2,3
	Laboratory Assistants	VETA	1,2,3

	Telex Operators	VETA	1,2,3
Engineering	Civil and Transportation Engineering	NACTE	4,5,6,7,8
	Mechanical Engineering	NACTE	4,5,6,7,8
	Electrical Engineering	NACTE	4,5,6,7,8
	Electronic and Telecommunications Engineering	NACTE	4,5,6,7,8
	Marine Engineering Technology	NACTE	4,5,6,7,8
	Mechinical and Automotive Engineering	NACTE	4,5,6
Hospitality	Food and Beverage Service	VETA	1,2,3
	Food Preparation	VETA	1,2,3
	Tour Guiding	VETA	1,2,3
	House Keeping	VETA	1,2,3
	Front Office Service	VETA	1,2,3
	Travel Agency	VETA	1,2,3
	Baking and Pastry Making	VETA	1,2,3
ICT	Information Technology and Communication	VETA	1,2,3
	Computer Engineering	NACTE	4,5,6,7,8
	Laboratory Technology	NACTE	4,5,6
	Computer Science Engineering	NACTE	4,5,6,7,8
	Information Technology	NACTE	4,5,6,7,8
	Computer Application	NACTE	4,5,6
	Bachelor of Computer Application	NACTE	7,8
Mechanical	Fitter Mechanics (General)	VETA	1,2,3
	Textile Machinery	VETA	1,2,3
	Cigarette Production Machinery	VETA	1,2,3
	Wood Working Machinery	VETA	1,2,3
	Ginneries	VETA	1,2,3
	Welding	VETA	1,2,3
	Fitting-Turning	VETA	1,2,3
	Machine Tool Maintanance	VETA	1,2,3
	Tool and Die Making	VETA	1,2,3
	Pattern Making/Fondry	VETA	1,2,3
	Boiler Mechanics	VETA	1,2,3
	Blacksmithing	VETA	1,2,3
	Mechanical Drafting	VETA	1,2,3
	Process Instrumentation	VETA	1,2,3
	Sheet Metal Works	VETA	1,2,3
Mining and Water	Alluvial Mining	VETA	1,2,3
	Hard Rock Mining	VETA	1,2,3
	Industrial Mining	VETA	1,2,3
	Gemstone Mining	VETA	1,2,3
	Lapidary	VETA	1,2,3

	Jewelry	VETA	1,2,3
	Mining Prospecting and Exploration	VETA	1,2,3
	Geology and Mineral Exploration	NACTE	4
	Mining Engineering	NACTE	4
	Mineral Processing Engineering	NACTE	4
	Hydrogeology and Waterwell Drilling	NACTE	
	Well Drilling and Boring	VETA	1,2,3
	Water Laboratory Technology	NACTE	4,5,6
	Water Supply and Sanitation Engineering	NACTE	4,5,6
	Hydrology	NACTE	4,5,6
Printing	Pre-press	VETA	1,2,3
	Press Work	VETA	1,2,3
	Binding and Print Finishing	VETA	1,2,3
Transportation	Road Transport	VETA	1,2,3
	Rail Transport	VETA	1,2,3
	Pipeline Transport	VETA	1,2,3
	Air Transport	VETA	1,2,3
	Marine Transport	VETA	1,2,3
	Marine Transport	NACTE	4,5,6

Appendix 5: Best Practice Country Profiles

United Kingdom

Similar to the United States, Vocational education in broad career areas, such as tourism, leisure, health, manufacturing, business, engineering and social care is provided in secondary schooling in England, Wales and Northern Ireland. These provide students with relevant work experience, skills and knowledge in a wide range of subjects. In general, full-time schooling is compulsory from age 5 to 16 years to the "O" level. "O" level qualification tends to be the entry level to Technical and Vocational skills training. For example, Scotland enables students to take vocation-based examinations leading to the Scottish Vocational Qualifications Certificate. However, students may continue into 6th form beyond compulsory on an "A" level academic track for A's or full "A" level qualification. The full "A" level is used for admission to higher education.

The TVET System

VET in the UK has been radically reformed since the 1980's. There has been a shift in emphasis in schools, colleges and businesses toward VET. The Government has introduced new funding under the "Train to Gain" program. The Government has:

- National occupational standards based on strong collaboration between employers , educators and trainers;
- Employer-led national sector skills organizations which replace most levy supported training arrangements;
- A national qualifications framework
- A system for recognition of prior formal and experiential learning and national credit transfer;
- Established legislation enabling the delivery sector of VET to grow and change.

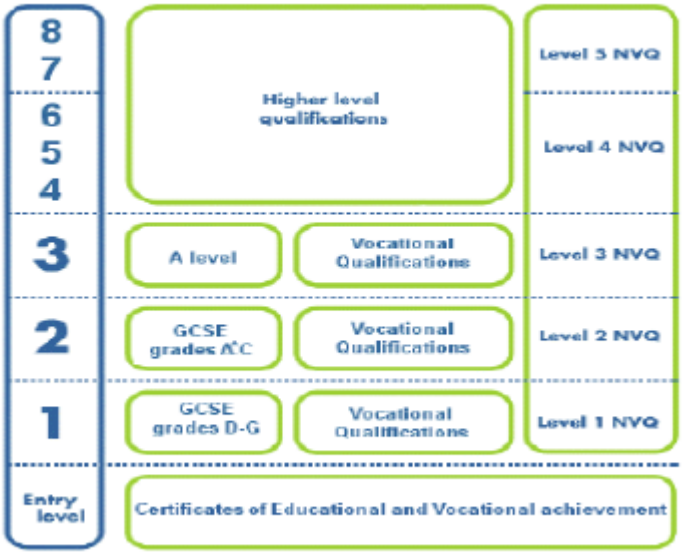
The Department for Education and Skills (DfES) oversees the development of education and training policy, and the approval and funding of Sector Skills Councils (SSCs). Excluding higher education, all post-compulsory learning is under the aegis of Learning Skills Council (LSC), which is responsible for strategic integration, planning and funding. There are Sector Skills Councils (SSCs) in all occupational areas responsible for development of occupational standards, occupational mapping and functional analysis and facilitating national training targets. There are also Awarding Bodies (ABs), such as Cities and Guilds, Edxcel, EMTA, AAT that have center approval and qualification certification. There are Training Inspection Bodies, such as Adult Learning Inspectorate (ALI), involved in the development and implementation of inspection frameworks for ensuring the quality of training and the effectiveness of learning. Regulatory bodies, such as the Qualification and Curriculum Authority (QCA) and Scottish Qualification Authority (SQA), which establish qualification, accreditation and quality assurance systems. Staff training and development and curricula materials are provided by delivery and training consultants and management organizations, such as the British council, are involved in contracting and project management.

National Qualifications

The system of qualifications is well defined and regulated. The NVQ provides a hierarchy of competencies and allows for credit banking, assessment of prior learning

and laddering to higher qualification levels. All NVQ levels are developed and validated with full employer participation. In addition to the national qualification framework, there are 13,000 other qualifications and a system for evaluation, articulation and recognition of prior learning creating mobility into the NVQ hierarchy. The National Qualifications Framework has 9 levels progressing from entry / access level certificates of education and vocational achievement, to 5 NVQ levels.[23] The U.K. is in process of articulating the NQF with other E.U. countries.

English National Qualifications Framework (NQF)



Industry Involvement

Formal industry input is provided by Sector Skills Councils (SSCs) charged with establishing links with employers in each industry sector and seeking their cooperation in developing priorities and targets for various sector activities. Their activities are directed toward reducing skills gaps and shortages, improving productivity, business and public service performance. They are also charged with setting priorities and targets for improving the provision of education and training, including apprenticeships and higher education. In addition, they establish sector skills agreements to meet priority skill needs related to improving business performance[24].

Apprenticeship

Generally, apprenticeship is available to all upon completion of compulsory schooling. The Modern Apprenticeships system was introduced in 1995 but altered for England in 2004. It entails a Foundation Modern Apprenticeship of at least 12 months training (leading to a NVQ Level 2 and some to a technical certificate), and the Advanced Modern Apprenticeship providing at least two years training (leading to an NVQ level 3, key skills qualifications and a technical certificate). In May 2004 the Modern Apprenticeship Scheme in England was expanded and renamed to include Youth Apprenticeships (for 14-16 year olds), Pre-Apprenticeships (for 16 – 25 year olds with

[23] The UK Qualification Systems: European Influences? By G. Hayard, Associate Director ESRC , SKOPE, University of Oxford (internet undated)
[24] Ibid 6

potential but not ready to enter apprenticeship), Apprenticeships (for 16-25 year olds) and Mature Apprenticeships (over age 25 years). The system was renamed as Apprenticeships and Advanced Apprenticeships. The SSCs may levy employers for workforce training.

Funding

The Learning Skills Council (and Scottish equivalents) is responsible for funding and planning education and training for over 16 year olds with a goal to raise participation and attainment through high quality education and training which puts learners first. The council has funds for: further education; work-based training; workforce development; adult and community learning and colleges of further education.

Quality Assurance

OFSTED is the government department that helps improve quality and standards through independent inspection and regulation for ages 16-19. In addition, the Adult Learning Inspectorate addresses quality of education and training for adult learners.

Areas of Best Practice

The system is very well developed with stringent quality assessment of training providers and industry-led standards, curricula and assessment. NVQs and SVQs are highly regarded by employers and there is excellent national and international mobility. CBT is the norm for training. Recognition of prior learning is well advanced enabling individuals to "challenge" for National Vocational Qualifications or Scottish Vocational Qualifications by providing evidence of their acquisition of the required skills and knowledge to perform according to industry occupational standards.[25] The SSC system, quality assurance process and stringency, and the revised apprenticeship scheme are role models for other countries.

[25] Vocational Education and Training in Australia, the U.K. and Germany by Josie Misko, National Center for Vocational Education Research 2006 ISBN 1921169168

Australia

Education in Australia is compulsory from ages 5-6 through ages 15-16. Students attend primary school for 7-8 years at which point they move on to 2 years of compulsory high school and then 2 post-compulsory years, which lead to a senior secondary school certificate. The Tertiary system is comprised of certificates, diplomas and degrees ranging from 1-4 years plus post-graduate levels. At the end of compulsory schooling, students may elect to enter the workforce, proceed to senior secondary school, take a traineeship or enter apprenticeship[26].

The VET System

Australia's vocational education and training is mostly post-secondary.[27] It is provided through the VET system by registered training organizations, both private and public, under the aegis of a national training framework that consists of the Australian Quality Training Framework (AQTF), Australian Qualifications Framework (AQF) and Industry Training Packages (ITP), which set assessment standards for vocational qualifications. The states and territories are individually responsible for public delivery and all regulation of providers, but a well-developed national recognition system allows national portability of qualifications and units of competency. [28]

The AQF comprises national qualifications issued in:
- the secondary schools sector;
- the vocational education and training sector (TAFE and registered private providers); &
- the higher education sector (mainly universities).

Vocational education and training is increasingly provided in the schools sector (VET in Schools) which may be recognized at the appropriate Certificate I - IV level or as credit towards the Senior Secondary Certificate of Education. Some Certificate I - IV qualifications are also issued in the higher education sector. In addition, there is a vocational education and training pathway to the Graduate Certificate and Graduate Diploma.[29]

High International Reputation

Australia's Technical and Further Education (TAFE) has developed an international reputation for high quality. It is regarded by many countries, especially in the Middle East and Asia as the benchmark certification. The states and the federal government share TAFE management and funding. Use of TAFE certification has migrated to other countries on a franchise basis (e.g.: Sri Lanka) and TAFE graduates often tend to command priority in employment and wages over local certifications.

[26] Vocational Education and Training In Australia, the U.K. and Germany by Josie Misko, Vocational education and Research NCVER 2006 ISBN 1921169168
[27] For those over 18 but some TAFE courses, offered through Youth Units, are available to early school leavers as young as age 15.
[28] Topic: Vocational education Australia. Source: Stephen's Web http://www.downes.ca/cgi-bin/page.cgi?topic=60
[29] AQF website dated 2007

AQF Qualification by Sector of Accreditation

Schools Sector Accreditation	*Vocational Education and Training Sector Accreditation*	*Higher Education Sector Accreditation*
		Doctoral Degree
		Masters Degree
	Vocational Graduate Diploma	Graduate Diploma
	Vocational Graduate Certificate	Graduate Certificate
		Bachelor Degree
	Advanced Diploma	Associate Degree, Advanced Diploma
	Diploma	Diploma
Senior Secondary Certificate of Education	Certificate IV	
	Certificate III	
	Certificate II	
	Certificate I	

Industry-driven Qualifications and Public Funding
Industry determines content of vocational qualification through Industry Skills Councils responsible for a "Training Package System" which accounts for about 60% of publicly funded training and almost all apprenticeship training. [30] Funding is a mixture of state and federal moneys. Public institutions may charge student fees for partially subsidized courses and may also have cost-recovery programs directed to for local industry and identified community needs.

Recognition of Prior Learning
Through the Australian Qualifications Framework, there is a well-developed system for recognition of prior learning acknowledging both formal and experiential training and all training is competency based. Australia is often considered a world leader in this.

Industry Input
Australia has 10 national level Industry Skills Councils (ASCs) and a network of local Industry Training Advisory Bodies (ITABs), which provide information to government on industry trends, future skill needs and training requirements. The ASCs also support the continuous improvement of nationally recognized training products and services. In addition, VET institutions seek out industry input at the local level.

In-plant training
Apprenticeship is well established in specific trades and crafts (engineering, construction, plumbing, automotive mechanics, commercial cookery, hairdressing, printing etc.). Traineeships of shorter duration, less than 2 years, have developed for non-traditional areas such as IT, retail and childcare. There are no age barriers to begin apprenticeships or traineeships and mature-age apprentices have been well received as a way to provide qualifications to existing workers who have developed the appropriate skills. Apprentices may have a training contract (which includes wages) with an employer or a group training company. The group training company is a unique way to enable breadth of experience and coverage of all specified competencies as the

[30] Ibid 5

apprentice can be shifted between companies to utilize different equipment and techniques as they progress.[31]

Areas of Best Practice

In addition to an excellent structure assuring relevance through employer participation in training and identification of changing needs, the system has tight quality assurance. It is also flexible, able to quickly respond to changing needs. Australia is a leader in assessment and recognition of prior and informal learning. It also leads in the creation of group training companies that enable a breadth of apprenticeship experience. The quality of training is reflected in employers' preference for TAFE graduates.

[31] Ibid 7

Kenya

The Kenyan public education system was restructured in 1985 into an 8-4-4 system similar to the U.S. System. Primary schooling is 8 years, secondary is 4 years and tertiary is up to 4 years providing certificates, diplomas and degrees. There is a large private school sector retaining the British O and A level system. Restructuring resulted in improved flow of students from primary through secondary. Primary education became free and universal in 2003. Out of all children in Kenya, about 85% attend primary school, 24% attend secondary school and 2% attend higher institutions.[32]

Description of the TVET System

TVET is provided through vocational components in primary and secondary education, technical education programs and apprenticeship training. Concerned with the predominance of the working population in the informal sector and poor absorption in the formal sector due to the slow economy, increased focus has been placed on training for self-employment and the informal sector. Kenya introduced vocational training at the primary level and the Ministry of Youth introduced Youth Polytechnics as an alternative to secondary education..

The Kenyan VET and tertiary technical systems are well developed. Kenya offers TVET at artisan, craft and technician levels in about 700 institutions.[33] Overall, the management of Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) is under 10 ministries, which makes coordination and maintenance of training standards difficult. TIVET mainly resides with the Ministry of Science and Technology, Ministry of Labor, Ministry of Youth and Ministry of Education. Tertiary technical training rests under the Ministry of Education, Commission of Higher Education. Ministry of Youth in involved in Youth Polytechnics for early school leavers. The Ministry of Labor and Human Resource Development has the Kenya National Occupational Classification System, operates 5 skills development centers, undertakes manpower and labor studies and promotes foreign employment. The Ministry of Science and Technology holds the Directorate of Technical Education (DTE), which is responsible for policy, curriculum development, registration and supervision of TIVET institutions and liaison between technical institutions and industry. These institutions include one technical teachers training college, 4 national polytechnics, 20 technical training institutes ad 17 institutes of technology and over 1000 private TIVET institutions. Most of the TIVET institutions are under the MoST.[34] Youth Polytechnics have not drawn students but new curricula are being implemented to help remedy the situation.[35]

Assessment of Skills

The Directorate of Industrial Training has the mandate to test trades, occupations and proficiencies. A number of TVET institutions, which were established through an Act of Parliament, offer their own examinations. Their respective examination bodies in their country of origin examine foreign curricula. The Kenya Institute of Education develops most of the curricula offered in public TIVET institutions and the Kenya National

[32] Source: Education in Kenya. Wikipedia web site
[33] Postsecondary Technical and Vocational Education Institutions in Kenya: Needs and Challenges by D.M. Mupinga, J.R. Busby and J.W. Ngatiah. International Journal of Vocational Education and Training Volume 14 Number 1 2006 ISBN 1075-2455
[34] Web sites for Kenya Government ministries
[35] Kenya: Polytechnics to test new curriculum. The Nation 2 March 2008

Examinations Council provides public examinations for primary, secondary and post-school technical and business education. In 2003, there was criticism about the lack of a national examination body to standardize the examinations and certification, which may be leading to establishment of a national qualifications framework.

Training Levy Scheme

Under the Ministry of Labor, industrial (workforce up-grading) training has had an Industrial Training Levy Scheme placed in the control of 11 industry "cluster" associations who determine levies, supervise collection and dispense funds to companies upon proof of training. The levies vary greatly among the clusters ranging from 0.5 – 2.5%. In 2002, about 88% of funds collected were refunded to employers. Employers received a 90% subsidy upon proof of training and have been allowed to expense the balance. There has also been a Catering Training and Tourism Development Levy under the Ministry of Tourism and Information. The government has commissioned a review toward restructuring the Industrial Levy scheme, which, although deemed successful in mobilizing industrial training, has not received wide acceptance from firms as an effective system for providing the industry with the workforce skills it requires.[36]

Areas of Best Practice

An IFC focus group of 30 major employers in 2004 revealed general satisfaction with the TVET system and the involvement of employers. Internships were active and graduates were praised for their work ethic, pre-employment and communication skills. Employers viewed School – industry liaison and partnerships as active and effective both for relevance of graduates and sharing worker skills-upgrading. It was also determined that Kenyan TVET graduates had high international mobility attributed to reasonable quality of training and proficiency in English language. The system is also addressing VET training for the informal sector.

[36] Study on Industrial training Scheme Restructuring Rolls Out. This Month Issue 2 January 2008 newsletter by the MSME Competitiveness project (web sourced)

Mauritius

The Mauritian education system is British-based with pre-primary, primary, secondary and tertiary levels. Education has been free for the primary and secondary levels since 1976. The system has been elitist with examinations to enter secondary school and the use of a level examination. In 2007, of every 100 students entering primary level, 35 were able to enter secondary education and 28 completed the high school certificate (A level) and only a few go on to tertiary education[37]. In a move to retain students in school until they reach age 16, a renewed pre-vocational stream was launched in 2001 to accommodate those unsuccessful for the secondary level academic stream. This entailed: curriculum development; training for teachers; a support mechanism to provide equal learning opportunities to all pre-vocational students across the board; partnership with the private sector and a common monitoring mechanism. Upon completion of the pre-vocational training program, students may enter a program at an IVTB institution or seek employment.

Description of TVET System

Mauritius established The Industrial and Vocational Training Board (IVTB) in 1989. It acts as provider of training. In 2001, the regulatory role was established with the Mauritius Qualifications Authority (MQA). The Human Resource Development Council (HRDC) assumes the role of facilitator.

IVTB operates 12 training centers and provides training in 50 different fields, including tertiary levels. Training is delivered in three modes: full-time, part time and apprenticeship. There is also an active private VET training sector.

Qualifications Framework

The National Qualifications Framework (NQF) is a 10-level framework, starting with Certificate of Primary Education at Level 1 up to PhD at Level 10 and sets out the levels at which qualifications can be recognized It is a way of showing how different qualifications of a country relate to each other and enables different types of qualifications to be compared through a common language of level. Subsequently, it helps learners make informed decisions about the qualifications they want to pursue, by comparing the levels of different qualifications and identifying clear progression routes to their chosen career.

The NQF aims to:

- Promote access, motivation and achievement in education and training, strengthening international competitiveness.
- Promote lifelong learning by helping people to understand clear progression routes.
- Avoid duplication and overlap of qualifications while making sure all learning needs are covered.
- Promote public and professional confidence in the integrity and relevance of national awards.

[37] Source: Mauritius: The Future Lies In Technical and Vocational Education by Pauline Etienne of L 'Éxpress (Port Louis) 15 May 2007 Quoting the National Human resource Development Plan by the Human Resource Development Council April 2007

The Structure of the National Qualifications Framework [38]

	PRIMARY / SECONDARY EDUCATION	TVET / WORKPLACE	TERTIARY EDUCATION	LEVEL
10			Doctorate	10
9			Masters Degrees eg MA, MSc, M.Phil	9
8			Postgraduate Certificates, Postgraduate Diplomas Bachelor with Honours, Conversion Programmes	8
7			Bachelor (ord. Degree)	7
6		Diploma	Diploma	6
5	HSC / GCE 'A' Level /BAC / IBAC		Certificate	5
4		Certificate		4
3	SC / GCE 'O' Level			3
2				2
1	Certificate of Primary Education			1

TVET Relevance to Employer Needs:
There is a perceived miss-match of graduates as potential employers sometimes consider the education irrelevant. Employers also express concern that capacity of IVTB programs in growth sectors, such as Tourism, do not keep up with demand. As a result, employers and employer associations are moving to establish their own training programs. There are also private / NGO training providers outside the NQF providing their own or international certification.

Areas of Best Practice:
The country is addressing the need for vocational path for students. The NQF is well defined. IVTB is striving for excellence and industry acceptance as demonstrated by their ISO 9001-2000 certification.

South Africa

[38] Source: Mauritius NQF website

Since 1994, South Africa has unified education under a National Department of Education, which provides a national framework for policy. However, each province has its own education department. The country is in process of merging 21 universities and 15 technikons into 23 institutions. The college sector, including teacher training institutions and other vocational schools has also been restructured merging 150 FET colleges into 50 colleges and replacing courses. Progress has been made in universal education (public primary is free) with improved access and 87% flow to secondary level but only 20% flow into tertiary.[39] Primary (grades 0-8) through secondary (grades 9-12) schooling is 13 years beginning with grade " 0" or reception year and compulsory through grade 9. Youth unemployment is a major problem with less than 15% in 2006 formally employed between the ages of 15-24.[40]

Description of the TVET system:

The South Africa National Qualifications Framework (NQF) recognizes three broad bands of education: General education and Training (level 1 – schooling up to grade 9 and ABET); Further Education and Training, which includes adult basic education and training (levels 2-4: grade 10-12) ; and Higher Education and Training (levels 5-8). Further Education and Training takes place from grades 10 to 12, and also includes career-oriented education and training offered in other Further Education and Training institutions - technical colleges, community colleges and private colleges. Diplomas and certificates are qualifications recognized at this level. The metric pass rate, which was as low as 40% in the late 1990s, continues to improve each year, and reached 68.3% in 2005. [41]

BAND	SCHOOL GRADES	NQF LEVEL	QUALIFICATIONS
HIGHER		8	Doctor's degree
		7	Master's degree
			Honours degree
			Postgraduate diploma
		6	General first degree
			Professional first degree postgraduate
			Bachelor's degree
		5	First diploma
			Higher certificate
			Certificate
FURTHER	12	4	Diplomas
	11	3	Certificates
	10	2	
GENERAL	9	1	Grade 9 / Adult Basic Education and Training level 4
	8		
	7		
	6		
	5		
	4		
	3		
	2		
	1		
	R		

Private Sector Involvement:

Sector Education and Training Authorities (SETAs), comprised of representatives from government, industry and labor, were established in 2000 with the economy divided into 23 sectors, each with a SETA overseeing the development of quality control and relevant skills. The SETAs broker 80% of the monies allocated to training, apprenticeship and learnership programs while the National Skills Fund (NSF), which disperses the monies to increase

[39] Profile of the Education System in South Africa 2006 by M. Bridgman, Education USA (web access).
[40] Promoting relevant education and training for employment: Youth Development Employment in South Africa's Education and Training (FET) sector. By E. Butler et al of EDC for USAid March 2007.
[41] Education in South Africa page 2 www.southafrica.info/about/education/education.htm

skills, handles the remaining 20% deemed a national priority.[42] Individual SETAS may also seek training levies from employers. As well, individual public TVET institutions can generate revenues from fee-based programming to respond to local needs.

Effectiveness of TVET:
The TVET system may be contributing to South Africa's high labor productivity. The 2005 World Bank Investment Climate Survey rates South African labor productivity higher than China and the most productive countries elsewhere in Sub-Saharan Africa. Fewer enterprises surveyed (than comparable countries) had training programs and less than half of the SA firms surveyed had firm-based training. Additionally, there was a shortage of skilled workers in country yet it has been shown that there is a high economic return for trained workers. There was some concern that, due to the newness of the system, SETA and other government programs might not be productive in encouraging worker training.[43] However, recent media articles (2007) indicate growth in industry partnerships with SETAs and FET colleges.

Areas of Best Practice:
Recently, there has been a shift towards competency-based training. Shorter than apprenticeships, learner ships are contractual agreements between students, training providers and employers. However, apprenticeships are on the rise due to the shortage of skilled workers and employer needs to train existing workers.[44] In 2007 the Manpower Training Act was repealed and apprenticeship was placed under the Skills Development Act in 2007. There is concern that revamping delivery in the FET sector, which has replaced a series of short courses (3 month theory or N courses coupled with OJT) with longer (1 year or NCV) courses may be detrimental to the apprenticeship system and divergent from employer needs.[45]

The National Skills Development Strategy that entered Phase 2 in 2005 compliments the work of the SETAs. The second phase endeavors to address " dilution of the structural boundaries which separate the underdeveloped " second economy" from the more advanced " first economy" addressing both skill shortages and SMME development. The country is actively addressing TVET needs of the informal sector.

India

[42] South Africa: Skills training scheme under review Irin news report 74933 April 15, 2008
[43] South Africa: An Assessment of the Investment Climate by G.C. Clarke et al Africa private Sector Group, World Bank 2005
[44] Ibid 16
[45] Ibid 16

TVET in India is in transition. Due to its rapidly growing middle class and the development of new industries, India is in a period of hyper economic growth. Traditional industries, especially those companies with 1000+ workers have been hampered by restrictive labor laws resulting in a shift to capital-intensive production, which thus increases efficiency. Larger employers tend to have in-house vocational training programs and the Government mandates traditional apprenticeship. However, 93% of the country's workforce is engaged in the unorganized sector[46] in which the majority of skills have been learned informally. India educators have recognized the need to incorporate vocational education and "work-centered" education in secondary schools not only to assist those entering informal / formal vocational employment but also to add relevance for academic streams.

TVET Training System

In general, TVET training is provided by public and private / NGO institutions. Public institutions are governed by individual states with the federal government providing some directed funding. However, the formal public vocational education and training system has been criticized by employers as lacking in relevance. Some reforms are emerging, most notably, private sector employers and associations are being encouraged to participate at all levels from policymaking to running institutions. In some instances, such as the construction industry, employer associations are determining their own training standards and establishing their own training systems[47]. In the IT and hospitality industries, there is a trend toward industry led "internationalization" of standards and examination.

Employers associations have been encouraged to assume the governance of public sector VET institutions in order to improve relevance. Employer-based, private sector and NGO-based VET training is abundant but quality varies greatly by state depending on administrative policies, financial resources, quality of instructors, delegated authority for administrators and involvement of employers. Private providers tend to concentrate in low capital-intensive fields and lead in the training for new technologies. A notable development has been the introduction of "community polytechnics" which provide "second chance" community needs-based skills training.

Qualifications System

Depending upon the skills being taught, certification is provided in several manners and through different schemes. Certificate level crafts training by formal institutions are based on the Craftsman Training Scheme (CTS). Depending on pre-requisites, candidates may enter from Grades 8-12. Programs are offered by public Industrial Training Institutes (ITIs) under state labor ministries and Industrial Training Centers (ITC) under NGO / private providers. The National Council for Vocational Training (NCVT) has an All India Trades Test providing a National Trade Certificate (NTC). However for many subjects that do not fall under the aegis of NCVT, individual states handle the programs.

[46] National Council of Education Research & Training, new Delhi: National Focus Group on "Work and Education" Position Paper 2006

[47] [48] Field interviews conducted during a USAid workforce development survey in 2005/06 found Banks hiring MBAs to be tellers and machine tool companies hiring degree engineers and MBAs for in-service training to become machinists.

Skills Upgrading

Formal Apprenticeship may begin at age 14 and Grade 8 completion depending on the specific trade. This system is regulated under the Statutory Apprenticeship Training Scheme (STATS) and is governed by four Boards of Apprenticeship Training (BATs), on behalf of the Directorate General of Education. Training is directly administered through a Central Apprenticeship Council (CAC). The system is recognized as in need of restructure because the number of trades is limited and many employers have found the system unattractive. Many firms have opted for in-service training seeking potential employees with a "good attitude". Although commonly "in-house" in-service training may utilize private and NGO sector trainers. Although there are excellent exceptions, public sector institutions have tended not to be involved in worker upgrade training. In-service training has been common with service oriented international franchises, the banking sector and some advanced industries. Owing to a labor surplus, many firms tend to hire over-qualified personnel seeking a positive work attitude and capacity to advance.[48]

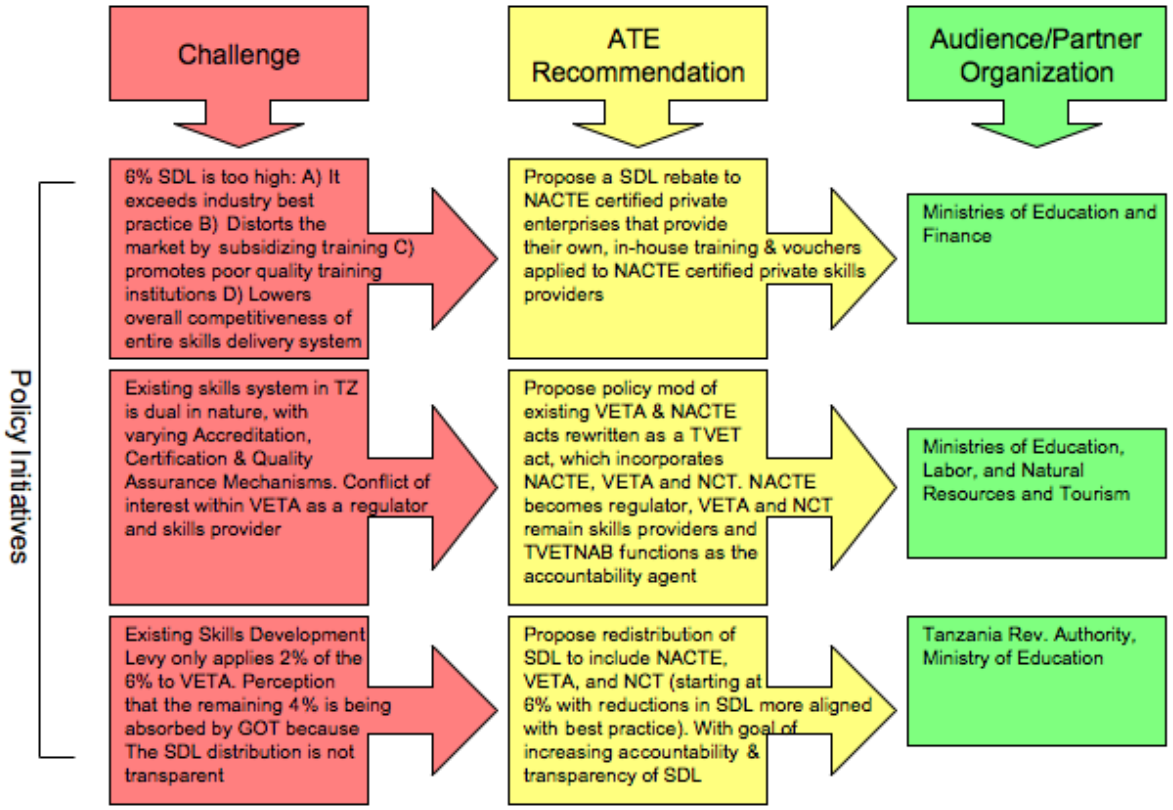
Areas of Best Practice

A successful movement in many states has been introduction of "Community Polytechnics"" as village-level satellites of better Polytechnics in order to address informal VET needs. There is a drive to improve relevance of TVET with Central and State Governments are encouraging public TVET institutions to partner with employers even turning over institutional governance and devolving authority to local employer-based governing boards. Increasingly, industry associations are establishing skill standards and qualifications and training workers. Use of CBT and assessment / recognition of prior formal and informal learning is growing. There is a growing trend with many qualifications being benchmarked to international

[48] Field interviews conducted during a USAid workforce development survey in 2005/06 found Banks hiring MBAs to be tellers and machine tool companies hiring degree engineers and MBAs for in-service training to become machinists.

APPENDIX 6a: Summary of Association of Tanzania Employers Recommendations

ATE Recommendation Matrix



APPENDIX 6b: Summary of Association of Tanzania Employers Recommendations (cont'd)