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Ushirika wa Maendeleo ya Elimu Barani Afrika  
الرابطة لأجل تطوير التربية في إفريقيا  
Association for the Development of Education in Africa  
Association pour le développement de l'éducation en Afrique  
Associação para o Desenvolvimento da Educação em África

## **ETHIOPIA COUNTRY REPORT FOR THE 2014 MINISTERIAL CONFERENCE ON YOUTH EMPLOYMENT**

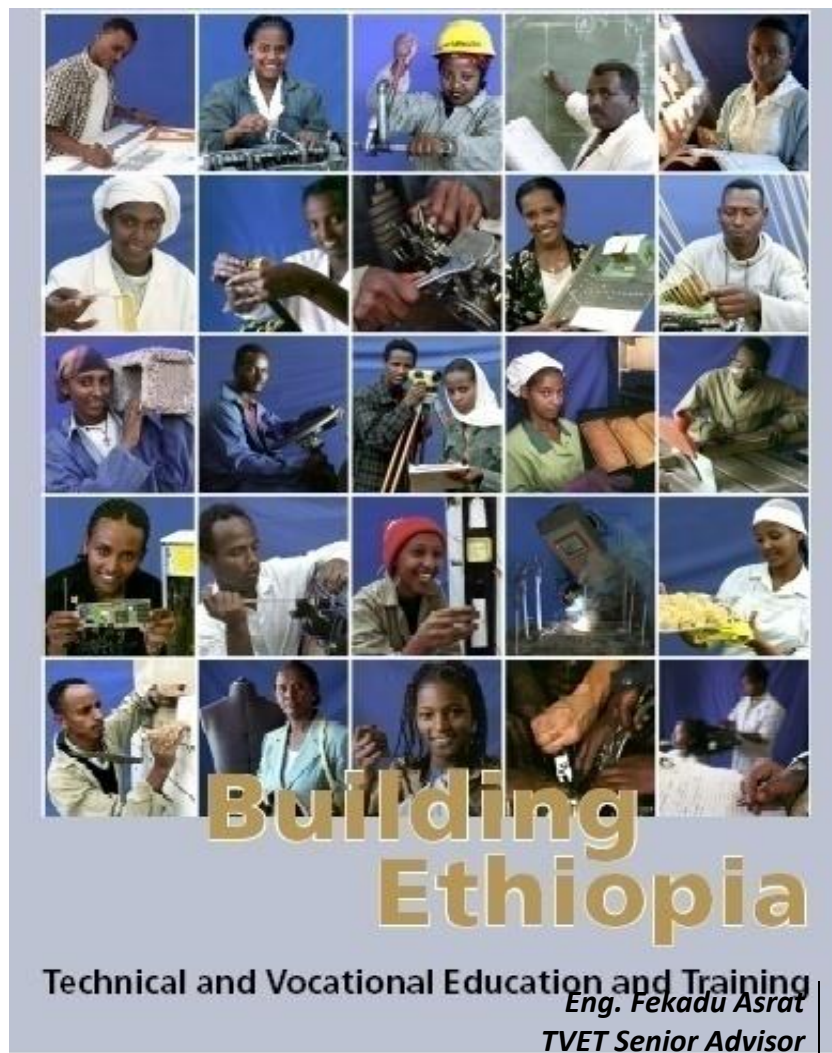
How to Improve, Trough Skills Development and Job Creation,  
Access of Africa's Youth to the World of Work

**Abidjan, Côte d'Ivoire, 21-23 July, 2014**



# **Federal Democratic Republic of Ethiopia**

## **Country report on policies and mechanisms for labor market oriented Technical and Vocational Education & Training (TVET) provision and employment creation**



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## ABBREVIATIONS AND ACRONYMS

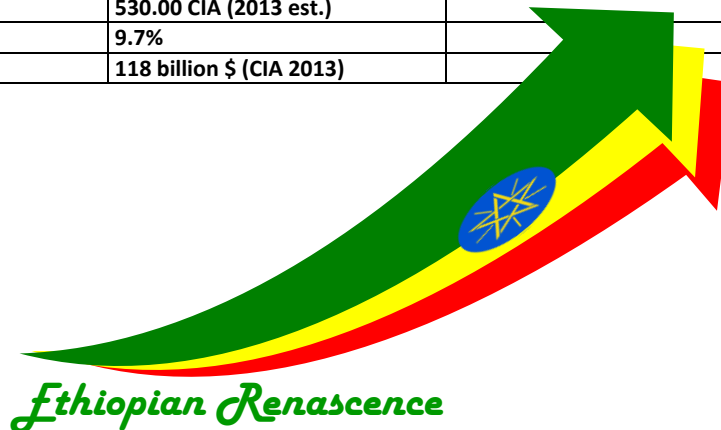
ADEA	Association for the Development of Education in Africa
AfDB	African Development Bank
BMZ	German Ministry of Economic Development
CoC	Center of Competence
CSA	Central Statistics Authority
CSBP	Construction Sector Capacity Building Program
ESAA	Education Statistics Annual Abstract
ESDP	Education Sector Development Program
EU	European Union
FeMSEDA	Federal Micro and Small Enterprise Development Agency
FTA	Federal TVET Agency
GIZ	German Society for International Cooperation
GTP	Growth and Transformation Plan
ICEADDIS	Innovation, Collaboration and Entrepreneurship in Addis
ICT	Information Communication Technology
ILO	International Labor Organization
JAP	Joint Action Plan
KAIZEN	“Change for Better” (Japanese Business Philosophy)
MFI	Micro Finance Institution
MIS	Management Information System
MoE	Ministry of Education
MoFED	Ministry of Finance and Economic Development
Mol	Ministry of Industry
MoLSA	Ministry of Labor and Social Affairs
MoU	Memorandum of Understanding
MoWUD	Ministry of Works and Urban Development
MSE	Micro and Small Enterprise
NEET	Not in Education, Employment or Training
NGO	Non-Governmental Organization
ReMSEDA	Regional Micro and Small Enterprise Development Agency
TVET	Technical and Vocational Education and Training
USAID	U.S. Agency for International Development
WB	World Bank

## COUNTRY PROFILE



# Building Ethiopia

Location	East (Horn) Africa	Manufacturing	12%
Total Area	1.1 Mio. km <sup>2</sup>	Service	42.2%
Inhabitants	93 Mio. (WB –2013 est.)	Agriculture	47% (CIA 2013 est.)
Government	Federal Republic - Parliamentary Republic	Labor Force = 45.65 Mio. (by occupation)	Agriculture=85%, Industry=5%, Service=10%
Economy	5 <sup>th</sup> Fastest Growing (2011/ 12)	Unemployment Rate	17.5% (CIA, 2012 est.)
Income	Low	Inflation (ave.)	8.8% (2013/ 14)
GDP per Capita (US\$)	530.00 CIA (2013 est.)		
GDP Growth	9.7%		
GDP PPP	118 billion \$ (CIA 2013)		



Over the past decade, Ethiopia has achieved high economic growth, averaging 10.7 percent per year. In 2012, Ethiopia was the 12th fastest growing economy in the World. If Ethiopia can continue its historically impressive growth performance, it could potentially reach middle-income status by 2025. In 2013 (WB est.), Ethiopia domiciled approximately 93 mi. people; in 2025, this number could reach more than 125 mi. and over 170 mi. in 2050 according to UN projections. Today, 83% of the population is living in rural areas, creating their income from agriculture and relying on a limited resource-land. Because of the limitation of this income source, a major shift from the rural to the urban is likely to happen, as other examples around the globe have demonstrated already. Strategies have to be further reviewed/ developed, in order to find answer to the pressing question of how this population and as a whole the urban explosion can be employed.

## Executive Summary

Education and training being at the center of the government's policies and its main objective focusing on poverty eradication and improving the well-being of people, these, in turn, require an adjustment as an additional engine of growth. Moreover, Ethiopia is making progress on three related important fronts: enhancing competitiveness in world market in general, resolving the bottlenecks of producing competent workforce in particular and improving the training system in assuring youth employment creation. This report, therefore, provides basic information on the employment situation at different levels of the economy, the labor market, and access to employment, planned and implemented measures, highly significant experience and conclusion. Furthermore, this report should form the beginning of most significant knowledge sharing among African countries that aims to understand efficient success mechanisms implemented. And the end goal is to initiate a process of sharing and pooling of these experiences so as to give each country and all participating countries a better idea of which pathways enable young people to acquire the competency they need to meet the demand of their country's labor markets and industries, and pursue wage or self-employment opportunities. Additionally, a table outlining major sources of information is established after the concluding chapter.

**Chapter 1** discusses and highlights information (quantitative data) on young people employment situation, unemployed and discouraged not in education or training. It further notifies capacity-building dimensions, a strong expansion of public investment in TVET, and its enrollees. Moreover, it supplements evidences on linkages to employment and number of young people in traditional or modern apprenticeship and how the amalgamation of competent workforce to the formal or informal economy is realized.

**Chapter 2** draws CSA and WB surveys, which dominantly track the labor market in Ethiopia and emphasis is given on distribution of employment by economic sector (primary, secondary, and tertiary). It further elucidates distribution of employment by urban/ rural sector, by formal/ informal sector (urban plus rural) and by category (wage-employment, free-lance, self-employment, household workers, etc.).

Difficulties experienced by young people in gaining access to employment in Ethiopia are well elaborated in **Chapter 3**. Subsequently, though the level of surveyed data slightly differs from organization to organization, diagnosis of the youth employment situation, and particularly the difficulties faced by young people in finding employment is pointed out in ILO's study that in Ethiopia the demand side often display sentiments of prejudice against youth in general, leading to additional disadvantages in the labor market. On the supply side, youth are highly unaware on their potential prospects in the labor market or of opportunities and benefits offered by the TVET system. The chapter further elaborates, what proportion of these difficulties are due to problems relating. Examining various components, it expounds details on the inappropriate nature of young people's skills. It particularly explains the lack of connection between the training sector and the working world, poor information on the labor market, lack of investment in sectors that generate jobs, absence of mechanisms for monitoring young job seekers facilitating their access to employment and absence of other means and resources. Particularizing problems of the school to work transition for young people, it explains how lack of systematic approach to understand the employment challenge and lack of accurate and reliable disaggregated data affects the transition.

In **Chapter 4**, the report examines in more detail the TVET growth in general and it additionally elaborates the whole TVET supply in particular, and then inspects its development of planned and implemented measures concerning TVSD into six

components adequately. It inspects plans or progresses to modernize existing training systems and pathways to align them with the skills required by the economy and it tries to find out planned or in progress training systems to train young people in the trades and jobs required by strategic or growth sectors. What measures have been taken to build the skills of informal sector entrepreneurs and apprenticeship managers so that they can better train the young people under their responsibility is also discussed in the same chapter. The chapter investigates also what category of partnerships exist or are planned to involve economic agents more closely in the design, implementation and operation of training tracks targeting the skills required by the labor market. At the end of the chapter, the report illustrates on how the TVET paradigm shift is defined to make access to employment being the leading priority of education and training systems and what other measures are being prepared.

**Chapter 5** recognizes present state of affairs of GTP on employment creation by shading some light on the current situation in the TVET sector, which is helpful to understand its role in employment creation in the country. Underscoring the National Employment Policy and Strategy, the chapter discusses the government's commitment to address youth as a crosscutting issue and making youth employment central to the national development plans with the involvement of different stakeholders. In line to the development plans, the chapter pronounces six core issues. These are measures taken to build occupational qualification of economic agents in order to help them expand their activities and thus create more employments, planned or in place incentives to encourage businesses to hire young people and, if necessary, to train them. Furthermore, targeted investments on the development of occupations and jobs in sectors that are considered strategic and mobilized resources to train young people in these occupations are also highlighted in the chapter. Financial or human support provided to help young people start up or develop an activity, and whether the country is implementing clustering to efficient utilization of resources for such business incubators for young people and/ or management and coaching centers for businesses created by or employing young people is qualitatively discussed in the chapter. It is also elaborated whether highly labor-intensive construction projects are taking place in the country specifically concerned with jobs for young people, and how extensive these measures are.

**Chapter 6** systematically explains the country focused best experience involving youth employment. It describes how the cobblestone project started, implemented and generated opportunities of employment nationwide. In qualitative terms, the model has created a viable path for thousands of youth workers, who would otherwise probably be unemployed. Through the TVET system, the workers are assessed and have been encouraged to create their own MSEs, enabling chiselers and pavers to get contracts not only from cities and universities but also from the private sector, in reality functioning as contractors. Furthermore, target group, objective of training, dedicated resources, concerned stakeholders, mechanisms of implementation, results achieved and further potential to scaling up regionally are all discussed topics in the chapter. NOTE: In relation to this thematic area, a fact sheet document is attached to this report briefly explaining the core parameters on how to plan, start and implement the cobblestone project nationwide.

**Chapter 7** briefly explains whether the country has cooperation experience with other countries though partnership so far is very limited. Additionally based on distinctive thematic areas, it states how cooperation and pooling of experience with other countries could possibly look like.

## Chapter 1.

### 1. Basic information on the employment situation of young people (quantitative data) in Ethiopia.

Most of the information available on unemployment comes from the latest Central Statistical Agency report on “2012 Urban Employment Unemployment Survey”, of September 2012, in which 19,800 households were surveyed. However, it refers **only** to the urban population, which constitutes around 17% of total population (approximately 14million out of a total population of approximately 82million). According to the CSA 2012, the employment to population ratio of the *urban* population was 51.5%<sup>1</sup>. That refers to the economically active population, or labor force, which was estimated at 62.5% for urban areas.

#### 1.1. Percentage of unemployed and discouraged young people

CSA reports a rate of “urban” youth unemployment at 23.3% for 2012 (16.4% for male, 29.6% for female)<sup>2</sup>. The rate has gone down consistently over the last 4 years (from 26% in 2009) according to CSA. One contributing factor – apart from jobs created and the result of micro and small enterprise promotion could be the increase in persons attending school. No information is available on “discouraged” youth, nor on countrywide youth unemployment.

#### 1.2. Percentage of young people not in education, employment or training (NEETs)

The World Bank World Development Report for 2013 on Jobs does not have the latest numbers for Ethiopia 2010, but instead lists 2005 numbers “of youth not in school or at work” at 1.8% for men and 10.9% for women<sup>3</sup>. Again, the low percentage may not fully take into account the vast number of youth estimated to be engaged in informal and less than full time employment. Citing 2005 number, an IGC study from 2012 shows that 28 percent of employed Ethiopians reported being underemployed, 27 percent in rural areas and 34 percent in urban areas<sup>4</sup>. The study further shows that in general, Ethiopian youth have lower participation and employment rates, and higher unemployment and informal sector employment rates than the country average. MoLSA expressed concern that underemployment reached 20-25% among urban male<sup>5</sup>.

#### 1.3. Percentage of young people in TVET.

Numbers vary a bit from source to source, but from the Ministry of Finance & Economic Development (MoFED) Annual Progress Report on the GTP, the number of enrolled trainees for 2011/12 was 335,058 (38% of expected total

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<sup>1</sup> FDRE CSA “Key Findings on the 2012 Urban Employment Unemployment Survey, Sept. 2012.

<sup>2</sup> FDRE CSA “Key Findings on the 2012 Urban Employment Unemployment Survey, Sept. 2012.

<sup>3</sup> World Bank “World Development Report: Jobs”, 2013.

<sup>4</sup> Youth Unemployment: Ethiopia Country Study, IGC Working Paper, 2012, p. 11.

<sup>5</sup> National Employment Policy and Strategy of Ethiopia MoLSA, 2009.

of 881,494)<sup>6</sup>. Overall, female participation was 46.6%. With the current youth population 15-24 years in Ethiopia estimated at 19.9% (or 18.5million)<sup>7</sup>, the percentage of TVET trainees out of total youth population is approximately 2%. The total number of enrolled students across levels is not recorded.

Slightly different numbers are recorded by MoE through the Educations Statistics Annual Abstract 2011/12 (ESAA), according to which total enrollment was 320,225, with 47.7% women. According to Federal TVET Agency (FTA), enrolled trainees in 2014 reached 401,041, of which 49.8% are women. ESAA reports that enrollment has experienced an average annual growth rate of 25-30% since 2007/8, except in 2010/11 where there was a decline of 14%.

Conferring to FTA, the enrolled trainees are being served by 15,355 trainers at three levels: 10,841 C-level, 4,168 B-level, and 346 A-level trainers, in a total of 864TVET institutions, distributed at 538 private, 295 government, and 31 NGO TVET institutions<sup>8</sup>. Therefore, TVET institutions have an average trainer-trainee ratio of approximately 1:20.

By 2014 fiscal year (6 month performance), out of the 239,574 the first six month 83,910 sat for assessment and 60,021 (71.5%) trainees (only in formal training)attended the assessment and became competent at the Center of Competence (CoC).

#### **1.4. Percentage of young people who find employment on completing TVET**

Very little reliable statistics is available beyond enrolment data from the MoE, which issues an annual report for enrolment and on enrolment numbers. There has been a general lack of tracking the trainees as they leave both government and private TVET institutions, and no real data exist to follow the paths of employment, self-employment, or unemployment.

The Federal TVET Agency (FTA) does not currently have documented data about where the certified trainees are or what their employability status would be. There have been attempts at performing smaller tracer studies by individual TVET institutions. However, mostly for internal use and without standardized information, making comparisons or tracking difficult. However, the FTA is planning to implement better tracking systems (management information system), to be able to report on employment data and provide better analysis on labor market data to feed back into the system.

Training-to-work transition services, such as job counseling, orientations on job search, referrals or job placements, while planned to be included in TVET services for their certified trainees, are currently not functioning professionally

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<sup>6</sup> Growth and Transformation Plan Annual Progress Report for F.Y. 2011/12, MoFED 2013.

<sup>7</sup> CIA World Fact Book, 2013, [www.cia.gov/library/publications/the-world-factbook/geos/et.html](http://www.cia.gov/library/publications/the-world-factbook/geos/et.html)

<sup>8</sup> Ethiopian TVET System at a Glance, FTA-GOPA, July 2013

fully of its potential. Though for most trainees, job opportunities are organized with different industries (often at the TVET institutions), some TVET institutions will have job fairs, but may not always succeed in fulfilling for the remaining big some of trainees.

### **1.5. Percentage or number of young people in traditional or modern apprenticeships**

The TVET system in Ethiopia has already commenced introducing a more dynamic mode of cooperative training delivery modality, like the apprenticeship in the German “dual system”, and a 30/70 training modality, where trainees are engaged in basic theoretical training 30% of their time in TVET institutions, and 70% of their time in industry-based hands on practical training. TVET institutions are actively engaging industries from already identified priority sectors, to provide cooperative training for the trainees. The “cooperative training” program which is formalized through signing of a memorandum of understanding between TVET & industry allows trainees to get practical experience through established companies and industries – however, sometimes it is difficult to match the basic skills needs of the company with particularly the lower level trainees.

The Regional TVET Institutions have very ambitious targets for the cooperative training, and expect the number of trainees accommodated by the scheme to reach almost a million for 2014/15. Moreover, companies engaged to reach 30,062<sup>9</sup>; efforts are taking place to improve the existing system, with more feedback and commitment from companies, and to put in place a better framework for dealing with issues related to a clearer definition of ownership and responsibilities in the practical training relationship.

Another important vehicle for the “cooperative training” is the Micro and Small Enterprise (MSE) development scheme. The FTA mandated by the Prime Minister, is working hard in particular, MSEs will be able to assume a training function for TVET trainees, be flexible in terms of how to utilize the trainee competency and reap more immediate benefits from the cooperation.

### **1.6. Percentage of young people joining the formal economy**

Again, there is very limited tracking information available from the TVET institutions themselves, and there is currently no centralized system tracking the employment of TVET certified trainees. In terms of general statistics for young people in general in Ethiopia, the TVET Strategy states that “less than half of the urban work workforce is engaged in wage employment”, but exact numbers for young are not shown.

### **1.7. Percentage of young people joining the informal economy**

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<sup>9</sup> Education Sector Development Program IV, MoE, 2010

Informal sector economic activities generally overlap with small cottage industries and micro and small enterprises and absorbs the largest segment of the labor force. According to CSA 2012, 31.7% of urban employment is accounted for by the informal sector, but does not specify percentage of young people. According to the TVET Strategy (2008), “More than 40% are self-employed in the informal economy, most of which live on the edge of poverty<sup>10</sup>”

However, according to World Bank indicators from 2005, 81.4% of youth in Ethiopia worked in the informal sector (compared to 43% for adults) and 12.5% were self-employed (compared to 49.6% for adults)<sup>11</sup>. The ILO study from 2012 characterizes the informal economy by underemployment and poor working conditions, and establishes that “just over half of the active youth labor force population is employed in agriculture and informal sectors both of which are characterized by the prevalence of underemployment”<sup>12</sup>.

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<sup>10</sup> National TVET Strategy, MoE, 2008

<sup>11</sup> World Bank, Africa Development Indicators 2008/09.

<sup>12</sup> Africa’s Response to the Youth Employment Crisis, ILO, 2012, p. 5.

## Chapter 2

### 2. Basic information on the labor market in Ethiopia(quantitative data)

#### 2.1. Distribution of employment by economic sector (primary, secondary, tertiary)

World Bank lists numbers from 2005 to be 82.8% for primary sector, 6% for secondary sector, and 11.2% for tertiary sector<sup>13</sup>. The 2012 numbers from CSA lists the sector distribution to be 71.3%, 20.5%, and 8.2%, respectively.

#### 2.2. Distribution of employment by urban/rural sector

World Bank lists numbers from 2005 on “urban areas employment” at 11.7%, and “farming” at 82.3%<sup>14</sup>. CSA 2012 lists the total urban employment to population ratio at 51.5%. Consistently, however, all documents list a very low youth employment rate for rural areas, probably reflecting that most youth partake in the farming activities of the family or other informal sector work.

#### 2.3. Distribution of employment by formal/informal sector (urban plus rural)

No data available on formal/informal numbers in WB 2013 study. CSA lists overall size of informal sector in urban areas at 31.7%, but has no separate information for rural informal sector<sup>15</sup>.

#### 2.4. Distribution of employment by category (wage-employment, free-lance, self-employment, household workers, etc.)

World Bank lists 2005 numbers as 6% wage employment, 11.7% self-employed, 82.3% in farming, and 11.7% in urban areas<sup>16</sup>. The CSA 2011 lists self-employed at 38.9%, followed by government employees at 21.2%, private organization employees at 19.4%. Unpaid family workers are at 8.4%, while domestic employees are at 6.3%.<sup>17</sup>

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<sup>13</sup>World Bank Development Report: Jobs, 2013.

<sup>14</sup> Ibid.

<sup>15</sup> CSA, 2012

<sup>16</sup> World Bank Development Report: Jobs, 2013.

<sup>17</sup> CSA, 2012

## Chapter 3

### 3. Difficulties experienced by young people in gaining access to employment in Ethiopia

#### 3.1. What is your country's diagnosis of the youth employment situation, and particularly the difficulties faced by young people in finding employment?

In general, Ethiopia with the high – although falling – fertility and declining mortality rates, the population keep growing, adding pressure to the labor market dynamics. A high percentage of that growing labor force is youth at the ages between 15 and 24, and the Government of Ethiopia is highly aware of the fact to effectively address the employment issues in order to utilize this population segment for economic growth.

Add to the high supply of workers, both skilled and unskilled, the relatively low demand for competent labor force, there is a lack of medium and large companies or industry plants, which would otherwise provide large-scale employment opportunities. The Government is also encouraging young people to become entrepreneurs and start their own businesses.

Apart from the imperfections of the labor market, the ILO study points out that in Ethiopia, the demand side often display sentiments of prejudice against youth in general, leading to additional disadvantages in the labor market<sup>18</sup>. On the supply side, youth are highly unaware on their potential prospects in the labor market or of opportunities and benefits offered by the TVET system.

#### 3.2. What proportion of these difficulties are due to problems relating to:

##### 3.2.1. The inappropriate nature of young people's skills, and particularly the lack of connection between the training sector and the working world?

Although linkages increasingly exist between TVET institutions and the industries they aim to serve and collaborate with, the full potential has not yet been utilized, and therefore trainees occasionally face less than perfect cooperative training conditions. Additionally, trainees in some TVET institutions may encounter poor quality and inadequate capacity of trainers in the TVET institutions, who often lack experience and practical know-how and are unfamiliar with new technologies and equipment. As the TVET institutions themselves and the FTA increasingly recognize this state of affairs, initiatives are planned to continuously increase the

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<sup>18</sup> Africa's Response to the Youth Employment Crisis, ILO 2012.

participation of sector ministries as well as the knowledge and experience from the labor market. Within the last 10 years, the TVET System has experienced a tremendous shift from relying on input for the TVET curriculum content only from the MoE, to introducing the competency/ outcome based system in 2008. With the new system, occupational standards are developed based on inputs from related sectors, having the respective ministries in the lead. Future scenarios are to put the industry in the lead, so that demand based training is within TVET institutions. The increased involvement of the industry in terms of providing input, coupled simultaneously with a push to gain qualified staff are the topics, which will be topping the priority list for the next years to come.

Another consequence of the low level of communication with the industries is the difficulty in making the policy of 30/70 work in practice. When the companies in question are not fully aware of what the TVET institutions and their trainees are really offering, it is hard to visualize the benefits of the arrangement, and this seriously affects the overall demand for the trainees, both for the “practice period” and for the employment that should supposedly be following.

In order to address these weaknesses ESDP IV will allocate significant funds to “strengthen quality assurance, improve teaching methods, invest in physical infrastructure, equipment, libraries and ICT facilities and teaching, training, and learning material development/ improvement...” In addition, in sheer numbers, the FTA is committed to increasing the number of enterprises involved in cooperative training from 1,208 in 2009/10 to 30,062 in 2014/15.

### **3.2.2. Poor information on the labor market?**

Just as there has been limited knowledge in the world of work and industries about the content and quality of TVET training, there has also been limited knowledge in the TVET institutions on how to link/ cooperate with industries in order to find out their competent labor demands, where the future market trends will be, and what basic competencies are required in order to avoid a significant imbalance and mismatch of competencies; “the lack of adequate and appropriate quantitative and qualitative information on industries demands.

With inadequate information flow at the TVET institutions, these institutions are less capable or qualified to offer counseling to trainees upon accomplishing from the TVET institutions. However,

the FTA and the TVET institutions are well aware of this situation, and are committed to changing this situation by engaging in more dialogue with the working places. A higher level of interaction and information sharing is being worked out to create conducive environment, in order to improve information flow but also to forge the important relationships related to cooperative training.

### **3.2.3. Lack of investment in sectors that generate jobs?**

The Government of Ethiopia has identified 8 priority sectors: Agriculture, Industry (including leather, textile and garment, metal, cement, sugar, chemical manufacturing, agro processing, wood and bamboo processing), Economic-Infrastructure (including road construction railway construction and transport, road transport, maritime transport and operation, air transport, energy, water and irrigation construction, water resources/ utility and irrigation, information and communication technology, urban development and construction) Education, Health, Culture, sport tourism, Trade, Mining and extractive, Labor affairs and Social services. This means that the majority of efforts and financing are directed towards these sectors, and it also means that the Federal TVET Agency prioritize the competent work force building and labor market preparedness for these eight sectors.

The Ethiopian government been very active in attracting prospective investors in these sectors and has invested in Economic Zones in order to attract foreign investment in factories and plants that could provide large-scale employment, and it is the clear approach that over time the TVET institutions will be able to provide the qualified and competent workforce required by these employment generators. There is no doubt that there is a need to increase the investments in some of these sectors that can generate the much needed employment opportunities.

### **3.2.4. Absence of mechanisms for monitoring young job seekers and facilitating their access to employment?**

In order to come out of the traditional way of training to work approach, the individual TVET institutions have started working with different industries around their economic corridor based on their distinctive area of competence by jointly planning, implementing and evaluating a joint action plan with the respective industries. This is the current formalized system where competency is matched to industry's potential employment. With the proper implementation of the cooperative mode of training delivery, it is expected that more trainees will have proven

themselves also in the work place and therefore be able to successfully be accepted by the cooperating organization.

#### **3.2.5. Absence of other means and resources?**

While the Federal TVET Agency acknowledges that the system currently suffers from lack of information dissemination of activities, it nevertheless sees a huge potential for increasing this interest through a more effective marketing effort. A focused and positive campaign of information on training provision, employment opportunity and the development of career paths within vocational training systems need to be properly established. The FTA believes a lot more resources should be put into campaigns to inform about the merits and benefits of the TVET system, not only for the trainees, but also for the industries as a whole. The ESDP specifically encourages the organization of awareness campaigns on the benefits of TVET training<sup>19</sup>

#### **3.3. What mechanisms are planned or in progress to improve the processes of school-to-work transition for young people?**

Ethiopia has suffered from lack of systematic approach to understand the youth employment challenges of the current training-to-work transition, and further face a lack of accurate and reliable disaggregated data, which could facilitate a prioritization of issues in their programming. Nor have there been any mechanisms to track and share what works and could be replicated.

The FTA is committed to the development of a Management Information System, and among other results, it is hoped that better and more detailed research and data can feed into an improved counseling effort for young people making choices about their future. ESDP mentions the planned set-up of counseling centers and guidance manuals.

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<sup>19</sup> ESDP, p. 57.

## Chapter 4

### 4. Planned or implemented measures concerning TVSD in Ethiopia

#### 4.1. What reforms are planned or in progress to modernize existing training systems and pathways to align them with the skills required by the economy?

The TVET system has been under continuous reform and review since 2004, and through the Education Sector Development Program (ESDP IV) 2010/2011–2014/2015, the MoE is committed to create a competent, motivated, adaptable, and innovative workforce and to transfer accumulated and demanded technologies in Ethiopia”. The ESDP IV places a strong emphasis on the overall strengthening of technology, and plans to convert 3,000 TVET trainers to technology adopters by 2015. Technology transfer will be rolled out, not only in occupational standards across the board, but also in incubators for MSEs to support their growth.

A Joint Action Plan (JAP) involving key ministries and development institutions, including the FTA, has been introduced to identify activities needed to address four overall Goals: 1) Provide high-level competent workforce to the different economic corridors. 2) Ascertain existing lower, mid-level and future human resource of the economic corridor are competent. 3) Create MSEs around the economic corridor and ensure their competitiveness in the market, and 4) Guarantee development sector’s (see 5.c for the development sectors) competitiveness through technology transfer. One major activity of the JAP is to facilitate the development of National Occupational Standards by the MoE/ FTA, in collaboration with industry companies within private and public sector, to ensure that a standardized set of criteria be applied within specific sector training. Coupled with independent industry-led assessment and certification processes via Centers of Competence (CoCs), the foundation for an outcome-based system has been put in place.

On the other hand, 100% of all TVET trainers have undergone the assessment, and have been ranked according to the three-tier trainers’ qualification framework at levels A, B, and C. Next step would be to have the industry and company in-house trainers undergo an assessment to gauge where quality upgrades are needed.

The JAP places great emphasis on the development of an efficient and high-quality Cooperative Training environment. Currently, Cooperative Training agreements cover 163,509 TVET trainees, and constitute an essential ingredient in the framework of improving and modernizing the training system in Ethiopia. It is expected that the rise in cooperative

training agreements will translate into ongoing occupational standard revisions and updates to accommodate the content and quality requirements of the sector industries. ESDP projects an increase to 901,864 by 2014/15.

The FTA is working on a Management Information System (MIS), which will allow for better tracking and analysis of the performance of the TVET system, and will make it easier to identify areas of concern and issues to address. It is expected that such a system will gradually improve the informed decision-making in terms of educational planning, calculations and projections, when based on transparent information sharing among stakeholders. Some of the information that would be useful to track over time would be training information according to occupational area and qualification level; number of trainees according to enrollment and number of trainers according to level and specialization, as well as employment rates related to occupational field, sector, geography, and gender, among other factors.

Finally, there is a growing acknowledgement of the fact that given the limited size of the industries in the Ethiopia, there is an increased need for a vibrant micro and small enterprise (MSE) sector. As per the JAP, the Government is actively trying to ensure the competitiveness of MSEs in the market by accommodating needs through different measures, such as training, finance, and mentoring, especially within the identified development sectors. The TVET institutions include in all of their training areas an emphasis on technical skill training, entrepreneurship and business skills training, quality and productivity (KAIZEN) and usage of appropriate technology so that competent trainees can potentially start their own businesses instead of seeking employment. Furthermore, the TVETs capable of providing incubation services will significantly expand their services to increase number of MSEs served in 2014/15.

#### **4.2. What training systems are planned or in progress to train young people in the trades and jobs required by strategic or growth sectors?**

Occupational standards have been developed for 596 areas within eight priority sectors (see 5.c), and are currently being implemented in all TVET institutions, public and private, throughout the country. This was an effect of the JAP and the effort to ensure the introduction of appropriate and relevant content; with constant adherence to the standards, and with improved technology and equipment.

Further building on the cooperative mode of training modality, there are several examples of direct and close relationships between the Industry Development Institutions (i.e. agriculture, textile, leather, metal) and certain pre-selected TVET institutions to focus specifically on skills

building within separate industries. This type of industry-based dialogue between the centers that are trying to apply modern technology and production methodologies in specific subsector, and the TVET institutions that ultimately provide the production labor, can prove very rewarding over time.

As already mentioned the FTA acknowledges that it needs to better track and analyze the performance of TVET institutions in order to improve and adapt to current requirements. The ongoing development of an MIS will aim at ensuring the proper information dissemination. Once such a system is well functioning it would also permit better counseling and guidance for trainees in terms of future developments.

#### **4.3. What measures have been taken to build the skills of informal sector entrepreneurs and apprenticeship managers so that they can better train the young people under their responsibility?**

The importance of micro and small enterprises, which usually constitute the majority of the informal sector, has long been recognized, and increasingly support programs have emerged in Ethiopia to leverage the economic growth potential of this sector. First and foremost, the skills that TVET institutions try to focus on are based on a gap analysis for the individual MSE which include technical skill training, entrepreneurship and business skills training, quality and productivity (KAIZEN) and usage of appropriate technology. Beyond the training and TA offered to MSEs through the TVET system, several programs link up with financial support programs through the MFIs as well.

However, seeing that the MSE sector is successfully growing and that individual companies experience economic growth, the TVET institutions are increasingly looking to MSEs as a potential vehicle for employment generation and therefore also for the cooperative training system. Operating smaller and more centered businesses with specific production methods, MSEs have better immediate understanding of where to apply the skill set that a TVET trainee brings to the business. TVET institutions are incorporating MSEs into their pool of practical training options. Nevertheless, obviously submit the potential MSEs to their assessment process to gauge the competence and adequacy of competencies.

#### **4.4. What partnerships exist or are planned to involve economic agents more closely in the design, implementation and operation of training tracks targeting the skills required by the labor market?**

The JAP includes measures to identify the current demand for competent workforce, based on the sector's strategic plans. Additionally, through the design of JAP, the industries are motivated to be directly involved in the determination of what is determined as occupational standard for specific

training areas. More direct and in-depth partnership can be forged with individual companies to determine a training set-up according to particular needs.

In terms of the development of the occupational standards that govern the TVET content, several ministries are involved, i.e. Ministry of Agriculture, Ministry of Urban Development and Construction, and Ministry of Health, among others, and through these ministries continuous feedback from their industry partners and stakeholders is secured. In certain sectors with potential for high employment levels and growth, such as textile and leather, the government has set up industry development institutes that work closely with the industry and TVET institutions in terms of technical support and capacity building.

**4.5. How would you define the paradigm shift needed in your country to make access to employment one of the leading priorities of education and training systems?**

The overarching issues influencing the employment situation in Ethiopia is understood in bringing all stakeholders (education, training, research institutions and industry) on board in order to ensure the availability of competent workforce and demanded appropriate technology. This has been acknowledged and the government is prioritizing the actions needed to create employment, whether in the agricultural sector or in the industrial sector, with the appropriate and high-level competencies in order to be competitive in the market.

**4.6. What other measures are you preparing?**

While much emphasis has been placed on the TVET system, there is also a growing recognition of the weaknesses among management staff of individual TVET institutions, and it has become a practice that FTA introduced modern management concepts at the institutional TVET level, such as the application of internationally recognized quality assurance mechanism, institutional self-evaluation and monitoring. Another item considered is the introduction of a standardized support and supervision scheme, which is planned and conducted every quarter and this, is also followed by a consultative meeting of all Regional governments.

## Chapter 5

### 5. Measures planned or in progress to promote employment creation in Ethiopia

The Growth and Transformation Plan (GTP) does identify employment creation as a priority and aims to create millions of jobs in the 5-year period from 2010-2015. The GTP is committed to mainstreaming women and youth issues across all development plans and has women and youth empowerment and equity as one of its strategic pillars. Further, the GTP has identified development and expansion of MSEs and increased financial support to MFIs as primary pathways to increase employment especially for youth. Currently, the government is investing heavily in infrastructure, education, and health, and is actively inviting private investors, and foreign direct investment, into some of the identified growth oriented sectors, such as textile and garment manufacturing, agro-processing, and others. Industrial parks are being built to attract investors to Ethiopia, in the hope of catapulting the country forward in terms of economic growth, employment generation, and increased wealth.

The National Employment Policy and Strategy, which the MoLSA developed in 2009 with support from ILO includes specific focus on youth, specifically calls for promotion of a labor-intensive private construction sector, and even suggests forming small construction firms established as share companies of unemployed youth and members of the local community.<sup>20</sup> Together with the National Youth Policy, there is a government commitment to addressing youth as a crosscutting issue and making youth employment central to the national development plans.

#### 5.1. What measures have been taken to build the occupational qualification of economic agents in order to help them expand their activities and thus create more employments?

The TVET institutions in general may conduct five qualification levels, with the majority of trainees undergoing levels 1 and 2 to be linked to employment. However, it is built into the system that certified trainees may re-enter to build on their skills and become better equipped to start or expand a business, in which they can increasingly function at the master level and take on apprentices. The extent to which this is done is not documented, for lack of a tracking system.

Other measures to focus on growth-oriented businesses include the incubation methodology (see 5.e), which assist typically small businesses with the expansion of services or production capacity, through extensive capacity building training, one-on-one technical assistance, mentoring and coaching, as well as networking and linkage opportunities.

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<sup>20</sup> National Employment Policy and Strategy of Ethiopia, MoLSA, 2009, p. 20

**5.2. What incentives are planned or in place to encourage businesses to hire young people and, if necessary, to train them?**

It is a specific strategy of the Federal TVET Agency to augment the participation of companies in the cooperative training system. So far, though the system is not yet in full swing to have the intended effect, there are efforts to create a win-win situation until a well-organized/ harmonized incentive schemes is in place. One main challenge the FTA is trying to tackle is to secure the involvement and even “ownership” of companies in the process of training the trainees by identifying the role and responsibilities of both trainee and employer, and in defining the governing principles of the employment relationship.

**5.3. Are there investments targeted on the development of occupations and jobs in sectors that are considered strategic, and if so, what resources are mobilized to train young people in these occupations?**

As mentioned, there are eight strategic priority sectors, or development sectors, and the objectives and activities in the Joint Action Plan specifically focus on developing a competent workforce with these development sectors. These sectors are also being targeted specifically through the TVET system. In addition, the 596 existing occupational standards are all within these 8 sectors. Agriculture, Industry (including leather, textile and garment, metal, cement, sugar, chemical manufacturing, agro processing, wood and bamboo processing), Economic-Infrastructure (including road construction railway construction and transport, road transport, maritime transport and operation, air transport, energy, water and irrigation construction, water resources/ utility and irrigation, information and communication technology, urban development and construction) Education and Training, Health, Culture, sport tourism, Trade, Mining and extractive, Labor affairs and Social services.

**5.4. Is any financial or human support provided to help young people start up or develop an activity, and if so, what is the nature of this support?**

The government sees a potential of unleashing a transformational change through tapping into the creativity and readiness and aspiring MSEs to accelerate country's economic growth, create employment, wealth and alleviate poverty. Ethiopia, through the development of the MSE strategy, is therefore seeing significant growth, development and expansion of MSEs and increased financial support to MFIs as primary pathways to increase employment and self-employment, especially for women and youth.

The different support programs all use the existing framework of collaboration between the Federal Micro and Small Enterprise Development Agency (FeMSEDA) and its regional offices (ReMSEDAs),

local TVET institutions, and local microfinance institutions (MFIs). Through this collaboration, opportunities for youth start-up have been put in place, with several levels of support. Through one-stop-shops, the MSEs receive support services related to registration, assessment and guidance, and referrals to TVET institutions and MFIs; the TVET institutions offer industry extension services; the MFI offer financing to start up or develop existing businesses, often with a requirement of 20% own saving.

**5.5. Does your country have clusters of innovation or expertise such as business incubators for young people and/or management and coaching centers for businesses created by or employing young people?**

Oftentimes, incubators will focus on technology, because of the limited needs for facilities and space, but other sectors can easily be accommodated in an incubation set-up. The ESDP IV places quite a lot of emphasis on technology transfer, which will be rolled out, not only in TVET, but also through infrastructure investment and support for technology parks and incubators for MSEs to support their businesses.

There are some incubators already implemented, and quite a few in the pipeline within development agency frameworks. As part of a larger private sector development initiative, the EU is talking about an incubation set-up for businesses, but not necessarily only for youth. The World Bank is in the initial phases on a Climate Innovation Center that will ultimately realize innovative business ideas in an incubation setting; on the same note, the World Bank is about to introduce another incubation project in Ethiopia, the Agribusiness Innovation Initiative, applying the same incubation model. USAID is about to make selections for companies to be engaged in the Incubation for Innovation project, which is also primarily in the agribusiness sector. These initiatives present plenty of framework for strategic linkages with TVET programs for lessons learned and potential replication within TVET institutions and for referral of prospective TVET certified trainees with innovative business ideas. Some TVET institutions are already featuring incubation support for some of their trainees with business support services and technical facilities.

ICEADDIS (Innovation, Collaboration, and Entrepreneurship) provides an incubation environment for young entrepreneurs, especially focusing on technology. ICEADDIS offers an open space for networking, facilitates communities of like-minded entrepreneurs, provide some business trainings and start-up coaching, and even make available prototyping facilities, which are small-scale workshops or labs. Even though most of

the clients of ICEADDIS are academics now, they have potential to support TVET level related technologies as well<sup>21</sup>.

**5.6. Are there highly labor-intensive construction projects that have taken or are taking measures specifically concerned with jobs for young people, and if so, how extensive are these measures?**

Particularly the construction sector has experienced an ongoing high level of activity with several new building construction projects being implemented, especially in Addis Ababa. In addition, large-scale projects are currently being implemented on infrastructure such as the 85 thousand km universal rural road access program, inter-regional road initiatives and railways, not to mention the Grand Renaissance Dam, which is being built in the Western part of Ethiopia and 3 expansion and 9 new sugar plants with expected demand for competent workforce around 500 thousand in the area of house construction, sugar plantation and sugar manufacturing plant erection. Since implementation is speeding up in all sectors, thousands of young labor force from different qualification levels are playing a substantial role in the different mega projects.

**5.7. What other measures are you preparing?**

With a view to increasing public/private sector dialogue and bringing forward a framework for regulatory issues and policies, the FTA has started with a process of stakeholder meetings to discuss how collaboration and comprehensive measures can be realized. This stakeholder dialogue includes appropriate ministries, the FTA, public sector stakeholder such as federal and regional governments, and private sector stakeholders such as chambers, industry representatives, associations, etc. The purpose would be to create standardized tools and instruments for assigning responsibility and accountability, and for assuring quality across sectors and at the end of the day to be competitive regionally and internationally.

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<sup>21</sup> <http://www.iceaddis.com>

## Chapter 6

### 6. A highly significant experience involving the school-to-work transition or youth employment in Ethiopia

Your country has decided to provide resources and/or establish mechanisms targeting integration into the workforce, on-the-job occupational training or creation of businesses or jobs for young people. Please describe an ongoing experience that you consider particularly effective, using the following descriptive and analytical template:

**The “Cobblestone Project”:** the Construction Sector Capacity Building Program (CSCBP) started the Cobblestone Project in 2005 in a dual effort to create job opportunities and income for youth, and to provide attractive and long-lasting road and pavement in Ethiopian cities. Built on a principle of local resource utilization, cobblestone projects include labor-intensive jobs like quarrying, chiseling, transporting, and paving, as well as the production of tools needed. Starting out in Adama 90kms away from the capital Addis Ababa, the cobblestone project has been successfully expanded to numerous towns, cities and villages (Hawassa, Bahir Dar, Mekelle, Dire Dawa, Harar and Addis Ababa, among others), and has brought about increased mobility of people, the creation of new MSEs, and a boost in housing investment. Sustainability of the projects has been assured by establishing on-the-job training, institutionalizing training in TVET particularly targeting youth, strengthening quality and standards nationwide and creating a supportive policy environment.

#### 6.1. The target group (which young people and how many?)

The project primarily targets millions of young people of different age group, although not exclusively so, and is based on a principle of local resource utilization. Including both men and women, the project even included 160 physically handicapped persons in 2007.

#### 6.2. The objectives (training, integration into the workforce, employment creation, all of the above)

The objectives of the cobblestone project were two-fold – generate employment and income, and provide attractive and long-lasting pavement of Ethiopia at the same time. The potential for reaching both objectives at a massive scale lies in the inherent advantages of the project:

- ✓ *Only local resources are being used and the project does not depend on imports,*
- ✓ *Very few and basic tools are needed,*
- ✓ *Enormous amounts of unskilled/semi-skilled workers are needed,*

- ✓ *Almost every person has the ability to work in the cobblestone trade (men and women, young and old, disabled, etc.),*
- ✓ *Cities are beautified and kept clean,*
- ✓ *Cobblestones are easy to maintain, while the environment is not negatively influenced,*
- ✓ *All Ethiopian cities are suitable for this project<sup>22</sup>,*

In the towns where cobblestones are being used, the appropriate TVET institutions make sure to have the involved youth undergo training and competency assessment at their lower levels, first for the competency of chiseling, and later on for the competency of paving. By 2008 a total estimate of 90,000 employments have been created and now though exact/ compiled figures from all regions are not yet available, it is believed to exceed millions of employment convenience and wealth creation nationwide.

The project in many cases has led to the creation of MSEs connected to the goods and services related to the work, and these MSEs undergo training at the local TVET institutions. As established above, the projects have generated hundreds of thousand new enterprises.

### **6.3. dedicated resources (financial, human, institutional)**

Around 50 mil USD was dedicated from the World Bank for this project in terms of the financial, human, or institutional resources to implementing it in 140 towns/ villages throughout Ethiopia.

The cobblestone project has a secured sustainability through capacity building at different levels: on-the-job training at the micro level, institutionalizing training in TVETs and in City Administrations at the meso level, and strengthening quality and standards nationwide and creating a conducive policy framework at macro level.

### **6.4. The stakeholders concerned (public, private sector, civil society, central level, local and regional levels, etc.)**

Many stakeholders are involved in the development and implementation of this project, at municipal as well as regional and federal levels, and the structure of the project is tripartite, involving government, employers' and youth organizations. Stakeholders include youth associations like the Addis Ababa Youth Association, Ministry of Education, Ministry of Works and Urban Development as well as Ministry of Industry. This stakeholder involvement translated down to the TVET levels, and the TVET institutions are involved in the technical capacity building (chiseling and

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<sup>22</sup> Cobble Stone Project Ethiopia, UCBP/GIZ, 2009

paving, mainly), as well as in the entrepreneurship skills building, quality and productivity and appropriate technology.

#### **6.5. The mechanisms implemented (within the framework of existing institutions or through means that are specific to the target group and objectives)**

International cobblestone experts were invited to provide training to national trainers, who in turn have extended their expertise to trainees and MSEs through technical training in TVET institutions. Skills, knowledge and attitude in technical expertise and MSE creation was transferred through on-the-job training and teacher training at TVET institutions.

Specific training has been developed for the chiseling and paving of cobblestones and this training has to be continuously followed up on and enhanced to maintain quality of the cobblestone projects. MSEs have been created through all four stages of the paving process (quarrying, chiseling, paving and quality control / management) and market-oriented upgrading is heavily emphasized.

#### **6.6. The initial results obtained (qualitatively and quantitatively)**

In quantitative terms, the project has created more than 2,000 MSEs and employed more than 90,000 workers (primarily youth), of which about half are women. Approximately 350km of road and pavement has been constructed in 140 towns.

In qualitative terms, the model has created a viable path for thousands of youth workers, who would otherwise probably be unemployed. Through the TVET system, the workers are assessed and have been encouraged to create their own MSEs, enabling chiselers and pavers to get contracts not only from cities and universities but also from the private sector, in reality functioning as contractors.

On a local economic development level, the GIZ describes the impact of the project on local business: “growth and capacity-building of such businesses is strengthening the local construction sector, which greatly impacts overall local economic development. Until recently, urban local governments had been using asphalt as the only paving method, making them dependent on a few big contractors who had the machinery to construct such roads. Consequently, funds tended to be out-flowing, as money left the local and national economy to purchase oil for asphalt and required machinery. The cobblestone industry is local. From the

production of tools and stones to the paving of roads, the industry creates local value chains and thus stimulates the local economy”<sup>23</sup>.

#### **6.7. Potential for scaling up and/or a cascade approach?**

The ongoing demand for cobblestone projects is huge – mainly from the public sector - due to the sustainability of the project itself, and the durability of the road and pavement; and it is expected that within 10 years, the cobblestone projects throughout Ethiopia will employ millions of people.

The project has already been scaled up and has spread to numerous cities throughout Ethiopia; however, this project can be scaled up and expanded to other African countries and bring employment and income generation, as well as beautification. Moreover, Addis Ababa has announced an ambitious cobblestone program worth 43 million Euros, envisioning the construction of 190 km of roads within the next five years.

According to the Federal TVET Agency, the demand for cobblestone projects has gone up and with it; the m<sup>2</sup> price for the popular pavement method has sky rocketed.

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<sup>23</sup> Cobblestone Project, GIZ

## Chapter 7

### 7. Conclusion

#### 7.1. Are you already working in partnership with other countries?

Ethiopia is a member of the Association for the Development of Education in Africa (ADEA), which counts all African Ministers of Education.

At the ADEA Meeting in Burkina Faso in 2012, in a sub-section on “Lifelong technical and vocational skills development for sustainable socio-economic growth in Africa”, the Ethiopian experience was presented and shared with other member countries. Furthermore, a Kenyan Road Construction Engineers’ team conducted a study tour on cobblestone projects in Ethiopia in May 2011.

#### 7.2. What are your expectations regarding possible cooperation and pooling of experience between countries?

##### **Cooperation areas could be experience sharing in:-**

- ✓ TVET Trainers’ capacity development in different topics,
- ✓ Deployment of expat trainers (short & long term) & technology capacity developers [fabricators], focus needs to be distinctive development sector areas (e.g. agriculture, textile, leather, metal),
- ✓ Competency assessment,
- ✓ Management information system specially in data compilation and dissemination,
- ✓ TVET Institutions twinning (international),
- ✓ Co- management of selected TVET Institutions in a lead cluster approach,

## Annex I: Documents Reviewed

Organization	Title of Publication or Program	Author, Year, etc.
AA Tegbare ID Polytechnic College	MOU for Cooperative Training Among AA Tegbare ID Polytechnic College and Lifan Motors Co.	October 2013
AfDB – African Development Bank Group	African Economic Brief: Accelerating the AfDB's Response to the Youth Unemployment Crisis in Africa	Volume 4, No. 1, 2013
AfDB – African Development Bank Group	Working Paper Series: Youth, Jobs, and Structural Change: Confronting Africa's "Employment Problem"	John Page, WPS No. 155, October, 2012
ADEA and BMZ Association for the Development of Education in Africa	ICQN/TVSD Seminar on the Socio-Economic Integration of Young People in Africa, Summary Report	December 2012,
Capitol Ethiopia, Year 15, No. 768	"Not yet Competent" – article on National Occupational Competency Assessment Certification Center (Feature)	August 25, 2013
CSA – FDRE Central Statistical Agency	Key Findings on the 2012 Urban Employment Unemployment Survey	September 2012
CSA – FDRE Central Statistical Agency	Statistical Report on the 2011 Urban Employment Unemployment Survey	August 2011
CSA – FDRE Central Statistical Agency	Analytical Report on the 2011 Urban Employment Unemployment Survey	October 2011
CSA – FDRE Central Statistical Agency	Key Findings on the 2011 Urban Employment Unemployment Survey	October 2011
CSA – FDRE Central Statistical Agency	Large and Medium Scale Manufacturing and Electricity Industries Survey	August 2013
Federal TVET Agency	Part Three: Plan of 2014-15, 3.1 Objective of the plan	
GIZ	Report on Cobble Stone Activities 2007 - 2011	Roland Moezer and Biruk Sileshi, GIZ IS July 2011
ILO International Labor Organization	Africa's Response to the Youth Employment Crisis Regional Report: Synthesis of Key Issues and Outcomes from Eleven National Events on Youth Employment in the African region.	March-May 2012
Ministry of Education	Education Sector Development Program IV – ESDP IV	August 2010
Ministry of	Education Statistics Annual Abstract	September 2012

Education	(Education Management Information Systems EMIS)	
Ministry of Education	National Technical and Vocational Education and Training Strategy	August 2008
MoFED Ministry of Finance and Economic Development	Growth and Transformation Plan Annual Progress Report for F.Y. 2011/12 (Draft)	February 2013
MoLSA Ministry of Labor and Social Affairs	National Employment Policy and Strategy of Ethiopia	November 2009
Ministry of Women, Children and Youth Affairs (MoWCYA)	Ethiopian Women and Youth Development Index	August 2012
World Bank	Ethiopia: Skills for Competitiveness and Growth in the Formal Sector ESW (P143477)	Concept Note 02/07/2013
World Bank	Africa Development Indicators 2012/13	2013
World Bank	World Development Report: Jobs	2013

## **Annex II: FACT SHEET**

### **Old Method, New Chances: Paving with Cobblestones**

Cobblestone paving is not new. It actually began in Egypt more than 3500 years ago. However, today in Ethiopia, it is now commonly practiced, and it should be. Here is why:

- ✓ Because it's labor intensive, it creates many jobs,
- ✓ This new trade creates opportunities for entrepreneurs and small business owners,
- ✓ It uses all natural and locally available materials,
- ✓ It does not depend on oil, which is foreign imported, as asphalt does,
- ✓ It enhances the aesthetics of towns and cities,
- ✓ Empowers cities and towns to develop their own infrastructure\*, using indigenous materials,
- ✓ Cobblestones can be used to repair potholes in asphalt roads,
- ✓ Cobblestone paved areas are easy to maintain,

**The Science of it: What exactly are cobblestones? In addition, what is the procedure for cobblestone paving?**

- ✓ There are two major processes in this trade: cobblestone production and placing the cobblestones, or cobblestone paving
- ✓ **Cobblestone production**
  - ✓ workers start with unformed Trachyte raw material, blocks with an average size of 30x40 cm
  - ✓ Using hammer and chisel, worker form cobblestones and curbstones. The dimension of one cobblestone: 10 cm x 10 cm x 10 cm The dimension of one curbstone: 40 cm x 20cm x 10 cm
  - ✓ The cobblestone production benchmark is 28 stones of 10x10x10 per day.
- ✓ **Cobblestone paving**
  - ✓ The segmented arch is the most sturdy and robust paving design
  - ✓ Using curbstones, workers must create a frame around the area to be paved, to keep the cobblestones from tilting outwards.
  - ✓ Paving benchmark is 8m<sup>2</sup> per day for one worker
  - ✓ Steps for cobblestone paving:
    - ✓ create an even bed of crushed stone,
    - ✓ place the cobblestones in the arch design, hammering them down with a cobblestone hammer,

✓ use a compacter,

### **How much is 80 000 m<sup>2</sup>? (e.g.)**

If 40 pavers are working 5 days per week (and each of them are paving 8 m<sup>2</sup> per day), together they can pave 320 m<sup>2</sup> a day. This means they need 250 working days or nearly one year for finishing the 80 000 m<sup>2</sup>. If one chiseler can produce 0.28 m<sup>2</sup> (28 stones) per day, 1150 people must chisel one year to produce 80 000 m<sup>2</sup> or 8 million cobblestones.

**Thus, to complete 40 km of walkways in one year, you must give 1190 people jobs for one year!**

### **The potential of cobblestone paving in cities throughout Ethiopia...**

More than 150 cities in Ethiopia have more than 20 000 inhabitants. To pave the walkways, plazas and resident lanes in all 150 cities, it would be necessary to train approximately 178.500 cobblestone artisans and craftswomen, thereby creating just as many jobs. It is much cheaper to pave these areas with cobblestones instead of asphalt!

	<b>Paving with handmade concrete stones</b>	<b>paving with natural cobblestones</b>	<b>Paving with asphalt</b>
<b>Estimated Costs in Birr/ m<sup>2</sup></b>	149.50	138.50	More than 180.00

Additional workers are needed: in quarries, earthwork companies, transportation. This provides a very big business opportunity for small businesses and entrepreneurs. There is also great potential for cobblestone paving in the private sector, such as private home, industrial areas...etc.

### **Steps how to implement the cobble stone trade**

**A)** first the municipality must allocate a quarry with usable raw material and secure the extraction and transport.

**a1)** most done mistakes: The selected raw material is not being qualified for paving.  
Usage: Too soft, limy

If a municipality use wrong raw material the result will be a dispersing of the placed cobbles in some years.

**B)** The second step will be to purchase enough hammer and chisels for the extraction, cobble stone production and for paving.

**b1)** most done mistakes: Starting of chiseling without purchasing enough and quality tools

**C)** The third step will be to start after two weeks the cobble stone production when all ordered tools and raw materials are available. Train 10 chiselers who are going back

after 2 weeks training to establish the cobble stone production. Train 20 paver (4 weeks training) foreman and TOTs (5-6 months training).

c1) most done mistakes: Starting of chiseling with Chinese tools.

D) The last step will be to implement placing of cobblestones in the municipality.

d1) most done mistakes: Some municipalities asked for trained pavers from a central trainings center and started their own training. The result was training according to standard and not World standard. The quality factor was losing. A paver is not a trainer! They have not enough experience to educate!

### **Quarry (Very important!)**

The city needs to provide a quarry for the successful extraction of natural stones that are used to produce cobblestones.

A quarry has to be easily accessible on roads that are usable for cars and trucks in order to transport material and workers to and from the quarry. The municipalities are responsible to maintain the access road and prepare them for the rainy season.

Small and medium enterprises and cooperatives are formed to extract the natural stones. They will work daily in their respective areas of the quarry.

Relating to the consistency of the material found in a quarry, 100 workers are expected to extract around 100 m<sup>3</sup> of raw material daily.

The city needs to provide the following equipment and tools for approximately 100 workers (relating on 1000 chiselers) who quarry the raw material:

- ✓ 120 sledge hammers, 4 kg; (20 to keep in reserve);
- ✓ 120 hammers, 1.5 kg, both sides stumpy (20 to keep in reserve);
- ✓ 120 spiky chisels (20 to keep in reserve);
- ✓ 120 spiky and big split chisels for crushing raw material blocks (20 to keep in reserve).

### **1. Chiseling of raw material to produce cobblestones and curb stones in the quarry site**

In the second step, the chiselers work on the raw material that has been quarried.

To produce cobblestones, 1000 chiselers need the following tools:

- ✓ 200 sledge hammers, 4 kg;
- ✓ 1200 hammers, 1.5 kg, one side stumpy, the other side flat (200 to keep in reserve);
- ✓ 1200 hammers, 1.5 kg, both sides stumpy (200 to keep in reserve);
- ✓ 1200 flat chisels (200 to keep in reserve);
- ✓ 1200 spiky chisels (200 to keep in reserve);
- ✓ 200 spiky and big split chisels for crushing raw material blocks;
- ✓ 1000 pocket rules for measuring;
- ✓ 600 shovels for cleaning of the area (200 to keep in reserve);

- ✓ 600 rakes with tooth for cleaning of the area (200 to keep in reserve);
- ✓ 500 first aid boxes and 1 nurse.

Depending on the consistency of the raw material, one chiseler is expected to produce approximately 3 cobblestones per working hour; and 24 cobblestones within eight working hours. Therefore, 1000 chiselers are expected to produce approximately 24.000 cobblestones daily depending on the raw material. They are also producing curbstones and 15/17 cobblestones for the margin.

The chiselers have to be trained by experts in order to produce cobblestones of good quality.

Cobblestone experts suggest the following training schedule:

- I. 40 chiselers will be trained by experts within two weeks;
- II. The 40 chiselers will multiply up to 1000 chiselers after successfully completing the training themselves;
- III. Altogether, 12 weeks are necessary to educate 1000 chiselers;
- IV. Additionally, experts will train one coordinator and ten controllers;
- V. The city needs to provide one coordinator for the sites as well.

## **2. Transportation**

After having quarried the raw material, and produced curb- and cobblestones, the processed material has to be transported to the respective construction site.

One heavy truck can transport about 6000 cobblestones.

To transport all cobblestones, that are expected to be produced in one day, from the quarry to the construction site the truck must drive four times per day. The quarry therefore has to be easily accessible on roads that are usable for cars and trucks.

Ten workers are needed to load the truck per hand. These will need approximately one hour each time the truck is to be loaded.

## **3. Paving**

The last step in this process is the placing of the delivered cobblestones and curbstones. This is done by pavers.

40 pavers and 10 daily workers need the following equipment and tools:

- ✓ 50 hammers, 1.5 kg, one side stumpy, the other side flat (10 to keep in reserve);
- ✓ 5 sledge hammers, 4 kg;
- ✓ 60 especially produced cobblestone hammers (20 to keep in reserve); these hammers are not available on Ethiopia's markets and have to be especially produced. This will take approximately three weeks. 20 flat chisels (10 to keep in reserve);
- ✓ 20 spiky chisels (10 to keep in reserve);
- ✓ 50 spirit levels, 1.50 m (10 to keep in reserve);
- ✓ 15 straight edges, 2.50 or 3 m long;
- ✓ 50 pocket rules (10 to keep in reserve);

- ✓ 500 earth nails, 80 cm long and 12 mm diameter;
- ✓ 20 wheelbarrows;
- ✓ 30 rolls of masonry stretch strings, 100 m each;
- ✓ 30 packs of chalk (wax chalk if possible);
- ✓ 20 shovels;
- ✓ 20 brooms;
- ✓ 20 rakes with teeth;
- ✓ 20 pickaxes;
- ✓ 1 dynamic compactor per paving site for the compacting of the surface (> 250 kg own weight);
- ✓ 10 first aid boxes.

One paver is expected to place between 0.8 m<sup>2</sup> and 1.0 m<sup>2</sup> cobblestone pavement per hour; between 6.0 m<sup>2</sup> up to 8.0 m<sup>2</sup> of cobblestone pavement within eight working hours in the average. 40 pavers are therefore expected to place 240 m<sup>2</sup> pavements daily.

The pavers have to be trained by experts in order to expect a pavement of good quality.

Cobblestone experts suggest the following training schedule:

- I. 40 pavers will be trained by experts within four weeks in our central trainings center;
- II. Afterwards, these trained pavers will start working on real sites under the supervision of trainers;
- III. After the first training of 40 pavers, experts will train 40 additional pavers;
- IV. Additionally, special training will be given to ten or 20 of the best workers in order to train supervisors and TOTs. To be successful in training of supervisors and TOTs we need a minimum of five months. During this time we recommend that one civil engineer from the selected municipality participate at this training to learn how to pave roads with cobblestones. When the training is finished, the engineer must be responsible in his town for a paving according to the world standard.

Because of parallel training altogether, 24 weeks are necessary to educate

- ✓ 1000 chisellers;
- ✓ 10 controller;
- ✓ 50 pavers;
- ✓ 20 foremen and TOTs; and
- ✓ 2 coordinators for the implementation of the cobblestone trade.

## Annex III: TVET at Glance



### Background (up to 2005/ 2006)

Though TVET development growth continued in 2002/3,

#### Core Problems persisted (e.g.)

- ✓ Training: **Not focused** towards Industry's & Development Program's Demand ,
- ✓ Trained graduates: **Couldn't** get employment,
- ✓ Training provisions: **Only** center based and **Only** Formal Training,
- ✓ All Training areas: **Time Bound**,
- ✓ Quality Assurance: **Centralized** Curriculum,
- ✓ Industries: **Not** competitive (locally, internationally),
- ✓ Stakeholders participation: **Non-existent**,

## Basic Information

### “Urban Employment Unemployment Survey”,

- ✓ September 2012, in which 19,800 households were surveyed.
- ✓ Refers only to the urban population, which constitutes around 17% of total population (approx. 14 mil.).
- ✓ Employment to population ratio of the urban population was 51.5%. (economically active population, estimated at 62.5% for urban areas).
- ✓ “Urban” youth unemployment at 23.3% for 2012 (16.4% for male, 29.6% for female).
- ✓ The rate has gone down consistently over the last 4 years (from 26% in 2009) according to CSA.
- ✓ Percentage of young people joining the informal economy
  - ✓ Informal sector economic activities generally overlap with small cottage industries and MSEs,
  - ✓ And absorbs the largest segment of the labor force.
  - ✓ According to CSA 2012, 31.7% of urban employment is accounted for by the informal sector,

## National TVET Strategy 2007/8

### Aim

Creating  
One Coherent  
Outcome - Based TVET System  
which includes  
Formal, Non-Formal, Informal,  
Initial & Further Training  
for  
All Sectors

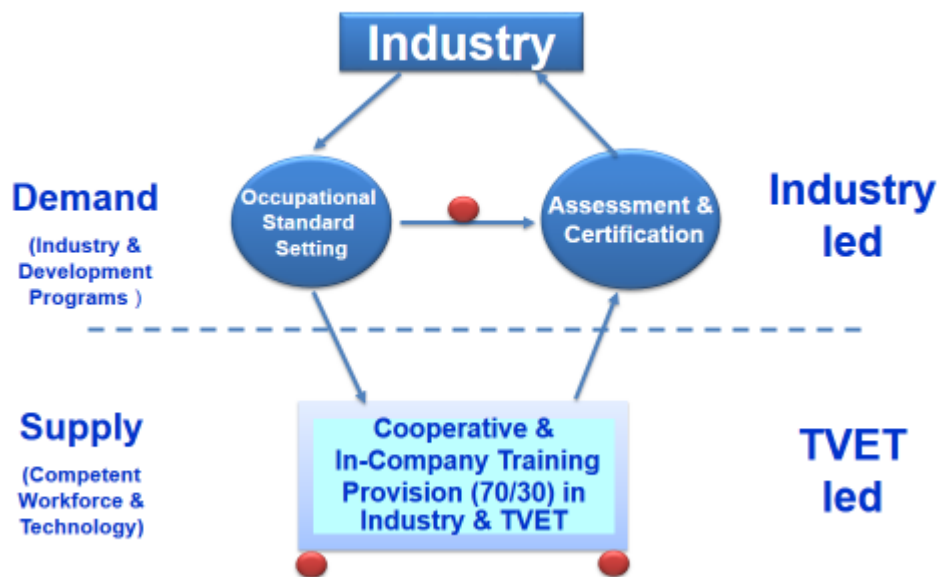
### Principles

- ✓ Outcome - Based TVET Training Approach,
- ✓ Centers of Technology Transfer,
- ✓ Life – Long – Learning,
- ✓ Flexible Training Provision,
- ✓ Co-operative & In-Company Training Delivery,
- ✓ Stakeholders’ Participation,
- ✓ Decentralization,
- ✓ Integration of all sectors to the TVET system,

### Key Issues

- 1 Policy & System Development
- 2 Occupational Standards, Assessment & Certification
- 3 Human Resource Development
- 4 Institutional Capacity Development
- 5 Cooperative & In - Company Training
- 6 Industry Extension and Technology Transfer

## Outcome-Based TVET System



## Priority Sectors of the Growth & Transformation Plan

Priority Sector	Priority Sector
<b>1. Agriculture</b>	3.5 Air Transport
1.1 Crop Production	3.6 Energy
1.2 Animal Production	3.7 Water and Irrigation Construction
1.3 Natural Resources Development & Conservation	3.8 Water Resource/Utility and Irrigation
<b>2. Industry Development</b>	3.9 Information & Communication Technology
2.1 Leather	3.10 Urban Development & Construction
2.2 Textile and Garments	<b>4. Education &amp; Training</b>
2.3 Metals	<b>5. Health</b>
2.4 Cement	<b>6. Culture, Sport &amp; Tourism</b>
2.5 Sugar	<b>7. Trade</b>
2.6 Chemical Manufacturing	<b>8. Mining and Extractive</b>
2.7 Agro-Processing	<b>9. Labor Affairs &amp; Social Service</b>
2.8 Wood & Bamboo Processing	
<b>3. Economic Infrastructure</b>	
3.1 Road Construction	
3.2 Railway Construction & Transport	
3.3 Road Transport	
3.4 Maritime Transport & Operation	

## Priority Sectors' Lead Institutions and Development Programs Joint Action Plan (JAP) Goals

Goal 1: Provide high level **competent workforce** to the different economic corridors,

Goal 2: Ascertain existing lower, mid level and future **workforce** of the economic corridor are **competent**;

Goal 3: Create **MSEs** around the economic corridor and ensure their **competitiveness in the market**,

Goal 4: Guarantee development sector's **competitiveness** through **technology transfer**,

## The Growth & Transformation Plan (GTP)

### Highly labor-intensive construction projects:

- ✓The "Cobblestone Project", (**now fully private**),
- ✓The 85 thousand km universal rural road access program, inter-regional road initiatives, (**becoming private**),
- ✓The Grand Renaissance Dam, (**Government**),
- ✓3 expansion and 9 new **Sugar Manufacturing Plants** with expected demand for competent workforce **around 500 thousand** in the area of **house construction, sugar plantation and sugar manufacturing plant** erection, (**60/ 40: Gov./ Pvt.**)

## General TVET Data (status: April / May 2013)

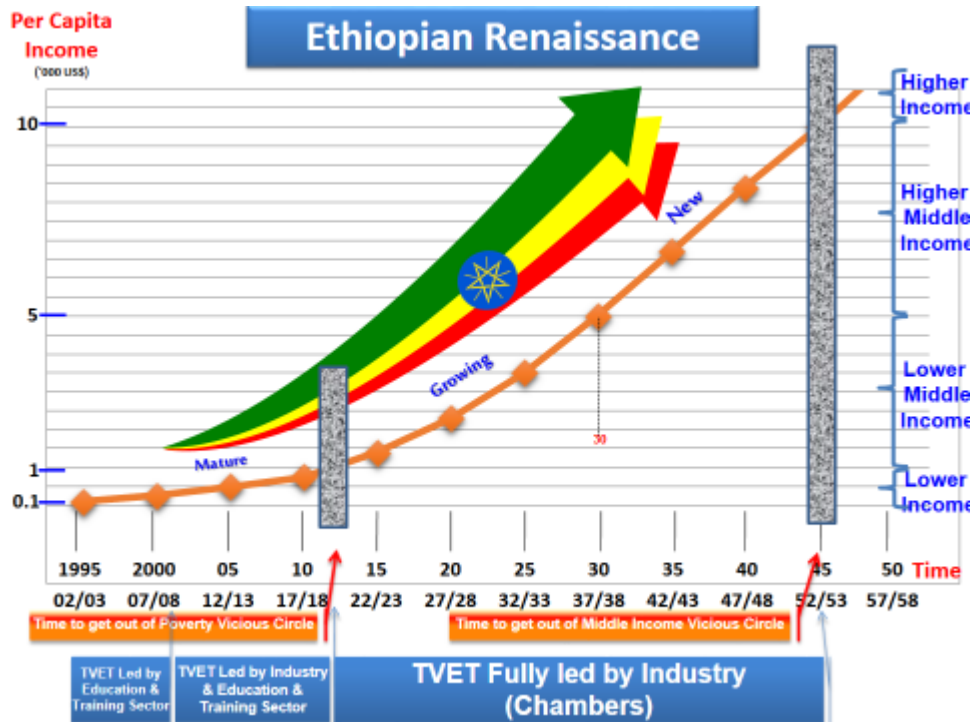
No	Key Issues	Planned	Achieved	%	Public TVET Institutions
1	Industry Lead Assessors' Development	5,153	3,684	71.5	Oromia 126
2	Competency Assessment Centers' Organized	216	141	65.3	Amhara 67
3	Industry Workers' Competency Assessment	40,607	22,960	56.5	Tigray 27
4	TVET Trainees' Competency Assessment	98,968	48,151	48.7	SNNPR 23
5	Cooperative Training Coverage	224,816	171,101	76.0	Addis 32
6	Short Term Labor Market Oriented Training	869,913	429,513	49.0	Ababa
7	Industry Extension Service to MSEs	143,378	115,923	81.0	Dire 2
8	MSE Operators' Competency Assessment	3,118	2,454	79.0	Dawa
9	Technology (100%) Transferred to MSEs	696	505	80.0	Afar 4
10	Wealth Generated by MSEs	56.0 Mil.	44.8Mil.	80.0	Beni-S 4
					Gumuz
					Gambela 2
					Somali 6
					Harari 2

<b>Nationwide 15,355 Trainers in 9 Regions</b>	<b>Current trainees Enrollment 404,041</b>	<b>TVET Institutions</b>
C Level = 10841	Male: 50.2%	Public 295
B Level = 4168	Female: 49.8%	Private 538
A Level = 346		NGO 31
		<b>Total 864</b>

## Partner Countries & Intervention Areas

No	Partner Country	Key Intervention Areas				Remark
		Policy & System Development	TVET Trainer's/ Leader's Development	Institutional Development	Technology Transfer & Ind. Ext. Service MSE Development (Top Priority)	
1	Germany					✓ Dual Training ✓ Study Tours ✓ Financial Co.
2	China					✓ FTI ✓ Study Tours
3	Korea					✓ Polytechnic ✓ Study Tours
4	Italy					Polytechnic
5	Australia					Study Tours
6	Japan					KAIZEN
7	Cuba					Trainers



*I*



*You!*



*Thank*

