

Lifelong Technical and Vocational Skills Development for Sustainable Socioeconomic Growth in Africa



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Qualifications for Sustainable Development in Africa



Ans au service de l'éducation en Afrique
25 Years serving education in Africa



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
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Lifelong technical and vocational skills development for sustainable socioeconomic growth in Africa

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ACRONYMS AND ABBREVIATIONS

ACWICT	African Centre for Women, Information and Communications Technology
ADEA	Association for the Development of Education in Africa
ADI	Africa Development Indicators
AfDB	African Development Bank
AFRISTAT	Economic and Statistical Observatory for Sub-Saharan Africa
APEL	Accreditation of prior and experiential learning
APL	Accreditation of prior learning
AU	African Union
AUC	African Union Commission
BREDA	Regional Bureau for Education in Africa
BTVET	Business, Technical and Vocational Education and Training
CAPA	Commonwealth Association of Polytechnics in Africa
CBT	Competency-based training
CCNB	Community College of New Brunswick
CNCFPT	National Consultative Commission on TVET
COL	Commonwealth of Learning
COTVET	Council for Technical and Vocational Education and Training
CSO	Civil society organization
ECOWAS	Economic Community of West African States
ERNWACA	Educational Research Network for West and Central Africa
EU	European Union
FAR	International Network for Agricultural and Rural Training
FAWE	Forum for African Women Educationalists
FBO	Faith-based organization
FCA	Fondation Congo Assistance
FDI	Foreign direct investment
FSD	Flexible Skills Development
GIZ	German International Cooperation Agency
IATT	Inter agency task team
ICQN	Inter-Country Quality Node
ICT	Information and communication technology
IEI	Innovation Enterprise Institution
ILO	International Labor Organization
ITAC	Industry Training Advisory Committee
JHS	Junior high school

**LIFELONG TECHNICAL AND VOCATIONAL SKILLS DEVELOPMENT FOR
SUSTAINABLE SOCIOECONOMIC GROWTH IN AFRICA**

ADEA 2012 TRIENNALE ON EDUCATION AND TRAINING IN AFRICA

LMIS	Labor market information system
LTTM	Learning, teaching, and training materials
MDG	Millennium Development Goal
MQA	Mauritius Qualifications Authority
MSMEs	Micro, small, and medium-sized enterprises
NAES	National Adult Education Strategy
NEET	Not in Education, Employment, or Training
NGO	Non-governmental organization
NORRAG	Network for Policy Research, Review and Advice on Education and Training
NQF	National qualifications framework
OECD	Organization for Economic Co-operation and Development
OER	Open education resource
PIA	Private Investors for Africa
PLA	Prior learning assessment
PRODEFPE	Decennial Program for the Development of Vocational Training and Employment
REC	Regional economic community
RQF	Regional qualifications framework
RPL	Recognition of prior learning
SADC	Southern African Development Community
SETA	Sector Education and Training Authority
SHS	Senior high school
TEVET	Technical, entrepreneurship, and vocational education and training
TEVSA	Technical and Vocational Schools Association
TVET	Technical and vocational education and training
TVSD	Technical and vocational skills development
UEMOA	West Africa Monetary and Economic Union
UIS	UNESCO Institute for Statistics
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO International Centre for Technical and Vocational Education and Training
VEI	Vocational Enterprise Institution
VET	Vocational education and training
WDA	Workforce Development Authority
YEP	Youth Empowerment Program

INTRODUCTION

Knowledge and skills are the key drivers of the knowledge economy. They oil the wheels of industry and commerce. Every day, new ways of doing things, new technologies, and new products find their way onto the global market. At the core of this constant change is the dynamic interaction between technical knowledge and skills and the market economy. A critical mass of knowledge and skills is therefore necessary for the effective participation of any country in the global knowledge economy and marketplace. Developing a skilled human resource for the growth and transformation of African economies is thus a major development issue.

Over the past decade or so, many African countries have embarked on wide-ranging policy reforms and initiatives to revitalize their technical and vocational skills development (TVSD) systems. Governments have become increasingly aware of the critical role that technical and vocational skills can play in enhancing labor productivity and economic growth. More importantly, the acquisition of employable skills by the youth is recognized as a key response to youth unemployment.

Skills, lifelong learning, and sustainable development
The promotion of skills in national development was the focus of the 2012 ADEA Triennale, organized under the overall theme Promoting Critical Knowledge, Skills, and Qualifications for Sustainable Development in Africa: How to Design and Implement an Effective Response by Education and Training Systems.

The notion of skills is complex and multi-dimensional and can best be explained within a given context. Conceptually, a set of skills may be described as general, basic, core, critical, key, or even "soft". Understanding the notion of skills must therefore take into account content and context. A practical approach would be to adopt a parametric definition based on the dimension of time (short-term, medium-term, or long-term skills), the dimension of content (general, basic, specific, problem-solving, communication, teambuilding skills, etc.), and the dimension of context (skills that are sector-specific: social, industrial, engineering, technological, business, or marketing skills, etc.)

In this paper, the definition of skills encompasses basic skills and competencies such as literacy and numeracy as well as higher-order skills such as critical thinking, problem-solving, and analytical skills that are necessary for functioning effectively in the world of work. The term is also used to describe the competencies that are

necessary for immediate employment, future employment, or lifelong learning. The term skills development is used to mean "*the acquisition of practical competencies, know-how and attitudes necessary to perform a trade or occupation in the labor market*"¹ (Palmer, 2007). While not ignoring the importance of "soft" social and team skills, market-oriented education and training is essentially vocational in orientation and technical in content.

The conceptual framework of the Triennale placed the acquisition of skills within the contexts of lifelong learning and of sustainable development. The concept of lifelong learning should be understood, not only from the perspective of time—or over time—but also from the dimension of space, or the spread of skills and skills development opportunities. As regards the present sub-theme, the term socioeconomic growth is understood to include the sustainability dimension of economic development with an emphasis on appreciation of social and cultural values, indigenous knowledge and learning systems, and respect for the natural environment. The concept of sustainable development is intrinsically linked to the total development of the individual. This includes not only the acquisition of employable skills for better economic livelihoods but also knowledge and practices that promote respect for the environment and others, ethnic and political tolerance, social cohesion, and responsible citizenship.

Structure of the paper

This paper is essentially a synthesis of the current dynamics, policies, and practices of technical and vocational skills development in Africa. It is based on the review and analysis of about thirty case studies and other contributions commissioned for the 2012 ADEA Triennale organized under the theme Promoting Critical

¹ Definition attributed to DFID.

Knowledge, Skills and Qualifications for Sustainable Development in Africa: How to Design and Implement an Effective Response by Education and Training Systems. These contributions form one of the three sub-themes of the Triennale—Lifelong Technical and Vocational Skills Development for Sustainable Socioeconomic Growth in Africa. They include papers on country and transnational case studies, successful innovations, partnerships, and promising practices in the area of technical and vocational skills development. They complement the other two sub-themes: Common Core Skills for Lifelong Learning, and Lifelong Acquisition of Scientific and Technological Knowledge and Skills for the Sustainable Development of Africa in the Context of Globalization.

This paper is in three parts. Part 1 discusses the critical role of skills in the socioeconomic development of countries, the current context of TVSD in Africa, and the shift in the choice of terminology from TVET to TVSD. The second part of the paper considers the conditions for lifelong TVSD for sustainable socioeconomic growth, based on an analytical review of the case studies, agency reports, and background papers contributed for the Triennale as well as current TVET/TVSD dynamics in Africa and international best practice. Part 3 highlights the main findings, key challenges, and outstanding issues that emerged from the analytical work, as well as the key messages emanating from the various presentations, debates and discussions held during the Triennale.

Part 1 – The challenge of unemployment

Youth unemployment is a serious concern in Africa. Although the youth (15-24 years) make up 40% of Africa's total population, they account for 60% of the unemployed. An estimated 95 million young men and women in Sub-Saharan Africa out of a total youth population of about 200 million are illiterate and are either unemployed or in low-paid jobs. Every year, between 7 million and 10 million young Africans enter labor markets that are characterized by high unemployment, low productivity and poverty-level incomes. These figures point to the absence of relevant skills for productive employment and highlight the reality of the huge numbers of African youth engaged in unstable jobs as street vendors or as poorly paid workers in irregular or seasonal employment.

The large numbers of young people who are not in education, employment or training is not only an indictment on the efficiency of national education and training systems but also a national security concern. As the recent history of conflicts and wars in Africa amply

demonstrates, unemployed youth are more likely to be recruited into armed movements and criminal gangs. They are also candidates for illicit activities, including drug trafficking, prostitution, cyber crime, and inter-communal strife. Equipping the youth and the adult population with employable skills is therefore a key development issue.

The informal sector is particularly conducive to empowering out-of-school youth for gainful employment and many countries have developed strategies to tackle the critical challenge of skills development for early school leavers. Apart from being culture-friendly, informal sector training is often delivered in the mother tongue using a flexible methodological approach adapted to the learner's abilities and needs. However, the success of apprenticeship training depends on a number of organizational and managerial factors, the most critical being the workplace learning conditions and the skills competence of the master crafts persons or trainers, since in the first place they must have the relevant skills to transmit to their trainees.

Part 2 – Situational analysis and findings from case studies

In almost all sub-Saharan African countries, informal and private sector training providers account for the bulk of opportunities available to all categories of learners for the acquisition of employable skills. Traditional apprenticeships, non-governmental organizations (NGOs) and faith-based organizations (FBOs), and on-the-job training provide the most opportunities for skills development for the vast majority of African youth. Informal sector employment and self-employment dominate in both rural and urban areas in Africa.

The participation of NGOs and FBOs as well as professional bodies and trade associations in the delivery of TVSD has been on the increase, particularly with regard to the skills needs of vulnerable groups such as women, poorly educated and uneducated youth, and urban slum dwellers. NGOs and churches are often present in areas where formal sector TVET providers are absent.

The findings from the national case studies reviewed for this paper confirm that many countries have recently embarked on important legal and policy reforms geared towards a more holistic and flexible TVSD delivery system that is better coordinated and managed. The evidence from the case studies also shows that public-private multi-stakeholder partnerships involving key players such as government ministries responsible for

education and training, businesses, international donors and development partners, local communities, training providers, professional bodies, NGOs, civil society organizations (CSOs), and the media are capable of generating synergies for the development of employable skills.

The integration of information and communication technology (ICT) and technology-mediated teaching and learning into training provision can contribute to quality delivery. Unlike the situation in schools, colleges, and universities, the use of ICT in TVET delivery in Africa is still in its infancy. There is therefore need to infuse technology into TVSD delivery.

In recent years, the competency-based training (CBT) approach has been acknowledged as a quality-improvement training methodology. Many countries have started piloting the CBT methodology in their training systems. However, the effectiveness of CBT also requires teachers who are trained for CBT delivery and are regularly exposed to new technologies through periodic internships in industry.

Female participation in TVSD is generally low in the engineering and technology disciplines. In the West African sub-region, female participation in these traditionally male-dominated disciplines is less than 28%. However, this participation rate rises to more than 50% in the business and commercial disciplines.

Skills development in post-conflict countries or contexts is particularly challenging. The TVET environment in post-conflict zones is often characterized by damaged or destroyed academic infrastructure, poor learning facilities, low capacity and high demand for skills training, insufficient and poorly qualified teachers, and a dearth of data and statistics on the TVET sector.

The acquisition of technical and vocational skills must lead to gainful employment. For this to happen, it is important that training is geared towards the needs of the labor market. One way of doing this is to create a mechanism for identifying and predicting the skills gaps and shortages at the workplace by following the dynamics of the labor market. In order to engineer a TVET delivery system that is flexible and responsive to the skills needs of the employment sector, the establishment of a labor market observatory or labor market information system (LMIS) is considered a priority.

To ease the transition into the world of work, some countries have instituted a range of measures targeting new graduates, jobseekers and candidates willing to become self-employed. These measures range from providing access to information on job availability to start-up business credit facilities.

A holistic and inclusive TVSD requires an assessment and certification system that can validate and certify competencies and qualifications acquired from different learning environments, whether formal, non-formal or informal. National qualifications frameworks, or NQFs, have been shown to be an effective tool for harmonizing learning achievements, validating experiential learning, and generally promoting lifelong learning. The development of a qualifications framework is high on the education and training reform agenda of many African countries. While some countries are already at an advanced stage of implementation, others are only just beginning the process. In this regard, South Africa and Mauritius are the pacesetters while The Gambia, Ghana, Mozambique, Nigeria, Senegal, and Tanzania—to name just a few—are at various stages of implementation. Globally, more than 130 countries are currently exploring or developing NQFs.

Over the past approximately five years, the revitalization of TVET within the context of regional cooperation and dynamics has engaged the attention of the African Union (AU), regional economic communities (RECs), and several UN agencies including UNESCO and the United Nations Development Programme (UNDP). These regional initiatives are driven by a common understanding and acknowledgement of technical and vocational skills acquisition as a key requirement for tackling the problem of youth unemployment on the continent. The Economic Community of West African States (ECOWAS), the West African Monetary Union (UEMOA), the Southern African Development Community (SADC), and ADEA have been particularly active in driving the TVSD agenda on a regional basis.

An analytical review of the national case studies and background papers consulted for this synthesis paper reveals a number of outstanding issues that need to be highlighted. These issues touch on the policy choices and interventions that are more likely to promote a more robust and effective delivery of technical and vocational skills.

Part 3 – Outstanding issues and policy choices

Policy reforms must assign specific national development functions to TVSD. Is policy focus on providing skills that can support private sector growth or economic empowerment for youth and women? Or is the thrust of policy on diversifying the national stock of skills and the development of high-level skills for participation in the global economy? Of course, a national TVSD policy can address these concerns and more. However, it is important to link TVSD policies to clear and realistic economic and national human resource development goals that also take into account national values and technological preferences.

The skills needs of out-of-school youth, early school leavers, and adults are best addressed by informal sector training providers. Formal sector training providers are often too rigid in their operations and training curricula, and are ill-equipped to respond to the particular training needs of these categories of learners in terms of flexibility in training delivery, teaching methodology, admission requirements, and language of instruction. Revitalizing informal sector skills provision will involve concrete efforts at the national level to regularly update the skills of master crafts persons and improve upon their pedagogical skills, introduce reforms into master-trainee performance contracts and agreements, and facilitate the injection of new technologies into the traditional apprenticeship system.

With 60% of the world's uncultivated arable land in Africa, agricultural development has great potential for growth on the continent. TVSD policies and strategies should therefore include a strong component on the provision of the skills required for areas such as irrigation, farm mechanization, land preparation, food processing, livestock production, marketing, and bio-fuels. In this regard, there is need for review of land tenure systems that hamper access to land.

The type of low-level skills often acquired through traditional apprenticeship—such as hairdressing, dressmaking, carpentry, etc.—are not capable of producing a globally competitive workforce imbued with the higher level skills necessary for technology adaptation and innovation, transformation of national production systems, and industrialization of the economy. TVSD policies and strategies should therefore address the development of both basic and higher level skills.

Often, national TVSD policies and strategies fail to recognize that skills acquisition in itself does not create

jobs or guarantee employment unless the training is matched to demand that is driven by the labor market and the national economy. National TVSD policies should therefore be based on a sound analysis of the labor market (the skilled labor that employers want) and the education and training market (the type of training being delivered) while paying attention to the phenomenon of occupational elasticity or the rapidly changing typology of occupations.

The availability of skills, even of the highest quality, does not constitute a sufficient condition for increased productivity and economic growth. New technologies and more efficient production systems and machinery are also important and may play a more dominant role in boosting productivity. However, the availability of a skilled and competent workforce is a necessary condition for driving the engine of growth for wealth creation. Investment in skills should therefore be accompanied by the modernization and improvement of production systems.

Government economic policies that support the manufacturing and productive sectors or stimulate the creation and growth of businesses can raise the demand for employable skills. As the productive sectors of the economy grow, new or additional job and skills training opportunities emerge and more people are employed. The market effects of globalization on the supply, demand, and prices of imported goods also have an impact on employability. In effect, the influx of cheaper imported products on the domestic market can impact negatively on the employability and incomes of skilled workers engaged in the local production of similar goods which are priced out by these cheaper imports.

Finally, it has been recognized that Africa faces a huge deficit of socioeconomic infrastructure in terms of adequate roads, housing, power supply, water and sanitation systems, telecommunications, and transportation, among others. A skilled workforce is required to build and maintain this type of infrastructure. In Africa, the people exist but the skills are lacking. Africa's working age population (15-64 years) that currently stands at about 500 million people is projected to exceed 1.1 billion by 2040. The challenge is how to provide this large potential workforce with the education and skills necessary for sustainable socioeconomic growth. Meeting this challenge will require the effective implementation of national policies and strategies that emphasize the development of lifelong technical and vocational skills and are firmly rooted in national knowledge and value systems. ■

BACKGROUND AND CONTEXT OF TVSD IN AFRICA

1.1 CRITICAL ROLE OF SKILLS IN THE SOCIOECONOMIC DEVELOPMENT OF COUNTRIES

The important role that human capital and skills play in the socioeconomic development of countries was forcefully underscored by American economist, Lester Thurow:

Show me a skilled individual, a skilled company or a skilled country and I will show you an individual, a company or a country that has a chance to be successful. Show me an unskilled individual, company or country and I will show you a failure in the 21st century. In the economy ahead, there is only one source of sustainable competitive advantage – skills. Everything else is available to everyone on a more or less equal access basis. (Thurow, 1994)

Countries with skills shortages and human capital deficits face a bleak future with little prospect for economic growth, employment creation, and social progress (Commission on Growth and Development, 2008; Kok, 2004; OECD, 2004). Indeed, strengthening the national stock of skills is increasingly recognized as a vital growth strategy for both rich and poor countries (DFID, 2007, 2008; AfDB, 2011).

A country's stock of skills as embodied in the workforce is a strong determinant for attracting foreign direct investment (FDI), which in turn contributes to increased job opportunities and employment. Although the flow of FDI is conditioned by a complex blend of economic and political factors, the lack of high-level skills may be one important reason why Africa is unable to attract a reasonable share of the worldwide FDI. Even though FDI inflows to Africa have been on the rise over the past decade², much of this investment has been in the capital-intensive oil and extractive industries sector. In the era of globalization, the competitiveness of countries in attracting FDI for a broader range of economic and industrial activities is often

determined by skills rather than by natural resources. Indeed, the lack of a skilled workforce may deter foreign investment in a country, since physical capital tends to go where quality human capital is in good supply (Lucas, 1990). Skills attract financial capital that comes with technology that in turn leads to capacity building of the domestic workforce and skills accumulation in the host country. FDI flows and the activities of multinational corporations, if carefully engineered and harnessed through appropriate government policies, can produce the capital-skill and technology-skill tandem that supports industrial development and economic growth. In the 21st century, skills, not just natural resources, are wealth.

At the individual level, the acquisition of employable skills is a basic requirement for employment, income generation, poverty reduction, and the raising of living standards. Poor people, especially women and children, suffer most from various forms of social and economic deprivation, including hunger and malnutrition, inadequate healthcare, limited access to education, and low self-esteem. Poverty is a threat to national stability and good governance. The eradication of extreme poverty and hunger is the first goal of the United Nations Millennium Development Goals (MDGs) that aim to significantly reduce the proportion of people living below the poverty line, improve access to education, promote gender equality, improve maternal and child health, ensure environmental sustainability, and promote global partnerships between developed and developing countries. The key to poverty reduction is economic growth and the creation of jobs and employment. However, poor people without employable skills cannot participate effectively in the productive sectors of the economy or benefit from any economic growth process. The acquisition of skills and job-specific competencies is therefore a crucial intervention in any poverty reduction strategy.

² In 2010, total FDI in Africa was more than US\$55 billion, five times what it was a decade earlier, according to The Economist magazine, December 3-9, 2011.

1.1.1 Youth unemployment in Africa

Youth unemployment is a serious concern in Africa. The International Labor Organization (ILO) estimates that 3 in 5 of the total unemployed in Sub-Saharan Africa are youth, where the definition of "youth" is age 15-24 years (ILO, 2006). A recent World Bank publication on Youth and Employment in Africa (World Bank/ADI, 2008/2009) also confirms the share of youth in the unemployed population as 60% although youth make up 40% of Africa's total population. The Africa Development Indicators (ADI) further estimates that the unemployment rate is as high as 83% in Uganda and 56% in Burkina Faso. However, these figures need to be viewed with caution as the high unemployment figures often quoted refer more to the absence of employment and to underemployment—or the quality of employment—than to a state of absolute inactivity. Indeed, some studies have argued that unemployment as defined by ILO is inadequate to describe labor market dynamics in less developed economies, particularly in Africa (Fares *et al.*, 2006; World Bank, 2006). Nonetheless, the high unemployment figures highlight the reality of the huge numbers of African youth engaged in unstable jobs as street vendors or as poorly paid workers in irregular or seasonal employment.

An estimated 95 million young men and women in Sub-Saharan Africa out of a total youth population of about 200 million are illiterate and are either unemployed or in low-paid jobs (Garcia and Fares, 2008). Over 20% of young people are unemployed, pointing to the absence of relevant skills for productive employment (AfDB/OECD, 2010). Every year, between 7 million and 10 million young Africans enter labor markets that are characterized by high unemployment, low productivity, and poverty-level incomes (Garcia and Fares, 2008). In Kenya alone, it is estimated that 800,000 young people enter the job market every year (Adam, 2011).

The large numbers of young people who are not in education, employment or training is not only an indictment on the efficiency of national education and training systems but also a national security concern. As the recent history of conflicts and wars in Africa amply demonstrates, unemployed youth are more likely to be recruited into armed movements and criminal gangs. They are also candidates for illicit activities, including drug trafficking, prostitution, cyber crime, and inter-communal strife. Equipping the youth and the adult population with employable skills is therefore a key development issue.

1.1.2 Inefficient education systems

The education system in many countries is characterized by high dropout or attrition rates of learners. In Ghana, for example, the transition rate of learners between basic education and senior high school is only about 50% while only about 40% of senior high school leavers are able to proceed to tertiary level institutions (Box 1). Factors accounting for the high dropout rates include low academic achievement standards, inadequate absorption capacity of higher level institutions (admission and placement constraints), and poverty or financial constraints of parents and guardians.

In view of the threats posed to national development by youth unemployment and poverty, it is imperative that African countries design and implement strategies that effectively tackle the challenge of young people outside the labor market and skills development pathways.

Box 1. The NEET family

In Ghana, only about 50% of learners exiting the junior high school (JHS) system—equivalent to 9 years of basic education—qualify to enter senior high schools (SHS). Thirty percent of SHS students also exit the mainstream system without meeting the requirements for further studies or acquiring the skills for employment. In fact, education statistics show that only 10% of JHS pupils eventually proceed to tertiary institutions. As a result of the poor transition rates, large numbers of learners drop out of the mainstream education and training system, ending up in the "Not in Education, Employment, or Training" (NEET) category.

Source: Baffour-Awuah and Thompson, 2011

1.2 SITUATIONAL ANALYSIS OF TVSD IN AFRICA

The issue of building a competitive workforce with the competencies needed for the world of work in a rapidly changing socioeconomic environment is prominent in the visions and the development strategic plans of most, if not all, African countries. Taking into account the need for change to achieve their respective development goals, many countries have embarked on policy formulation and reforms targeting their education and training systems. However, the development of TVET in Africa has experienced more policy formulation than policy implementation. In many countries, the policy discourse in favor of TVET has not been matched with concrete strategies and action plans.

1.2.1 Efforts to revitalize technical and vocational education on the continent

Desirous to promote TVET as a vehicle for economic growth, poverty reduction, national development, and regional integration, the AU in 2007 formulated a strategy document for the revitalization of TVET in Africa (AU, 2007). This document identified several issues and challenges that characterize the TVET landscape on the continent. These include:

- Weak national economies, high population growth, and a growing (mostly unskilled) labor force;
- Shrinking or stagnant wage employment opportunities especially in the formal industrial sector compared to a growing and vibrant informal sector, composed mainly of micro and small enterprises;
- Huge numbers of poorly educated, frustrated and unemployed youth;
- Uncoordinated, unregulated and fragmented delivery systems;
- Low quality of training;
- Mismatch between training and labor market needs;
- Unequal training opportunities fostered by inequities based on regional or geographical location, gender and socioeconomic conditions;
- Poor public perception due to low status of TVET;
- Weak monitoring and evaluation mechanisms;
- Ill-adapted assessment, validation and certification systems;
- Inadequate financing;
- Poor governance and system management.

With the TVET strategy document as a point of reference, the AU in 2009 declared the years 2009-2018 as the Decade of Youth Development in Africa, with a plan of action that is focused on skills development and capacity building for sustainable livelihoods.

The 2008 ADEA Biennale in Maputo provided a forum for a status update on the TVSD situation in Africa with particular emphasis on the education and training challenges that influence skills development for the world of work. According to the report of the Biennale (ADEA, 2008), the almost exclusive focus of the MDGs on primary education has downplayed the importance of skills development. Meanwhile, about 50% of pupils leaving basic education do not proceed to higher levels. Only a few countries—notably, Botswana, Seychelles, and South Africa—have transition rates exceeding 90% (UIS, 2006).

The 2008 Biennale report noted that formal TVET institutions lack the capacity and resources to train the huge numbers of early school leavers who need to acquire skills. Formal TVET institutions enroll less than 2% of all post-basic education students in countries such as Ghana, Kenya, Namibia, and Senegal. Consequently, especially in West Africa, TVET provision takes place on the job or through informal traditional apprenticeships. The economic reality of skills development in the informal sector is evident in that the informal sector accounts for a large percentage of employment activity, reaching 80-95% of the labor market in many West African economies.

1.2.2 Importance of the informal TVSD sector

The informal sector is particularly conducive to empowering out-of-school youth for gainful employment and many countries have developed strategies to tackle the critical challenge of skills development for early school leavers. Apart from being culture-friendly, informal sector training is often delivered in the mother tongue using a flexible methodological approach adapted to the learner's abilities and needs. However, the success of apprenticeship training depends on a number of organizational and managerial factors, the most critical being the workplace learning conditions and the skills competence of the master crafts persons, since they must have enough of the relevant skills to transmit to their trainees.

In Ghana, the National Apprenticeship Program, instituted in 2010 and funded by the State, offers free skills training to junior high school (basic education) leavers. Under the program, the trainees are attached to accredited workshops and trained master crafts persons for a 1-year period of apprenticeship training. However, the scheme can only accommodate about 7,000 beneficiaries out of the more than 150,000 junior high school leavers who are unable to proceed to senior high schools every year. Benin, Mali, and Senegal have also developed improved apprenticeship schemes that combine functional literacy classes with workshop-based pre-vocational training involving the direct collaboration of trade associations (Walther with Filipiak, 2007).

1.2.3 Poor public funding of TVSD

Even with the growing awareness of the role played by skills in the socioeconomic development of countries, public funding of TVET has remained inadequate over the years. As a result, expansion and upgrading of academic infrastructure has been slow. The provision of inputs for quality teaching and learning has also not kept pace with training demands. Except in a few cases,

the share of TVET in the national education budget of most countries is less than 2%. A notable exception is Senegal, where the allocation to TVET has been on the rise, reaching a significant figure of 8.2% of the national education budget in 2009. Many countries, including Benin, Burkina Faso, Côte d'Ivoire, Mali, Mauritius, Togo, and Senegal, have introduced payroll levies paid by employers as a strategy for mobilizing additional resources for financing TVSD with varied success. These levies, or employer contributions as they are called in some countries, are intended for use in financing the up-skilling or re-training of employees, the organization of student internships and the general TVET delivery system.

1.2.4 Expansion of private training provision

The participation of NGOs and faith-based organizations as well as professional bodies and trade associations in the delivery of TVSD has also been on the increase, particularly with regard to the skills needs of vulnerable groups such as women, poorly educated and uneducated youth, and urban slum dwellers. NGOs and churches are often present in areas where formal sector TVET providers are absent. These private, often not-for-profit, providers are more likely to enter into partnerships with companies and receive funding from international donors than public providers. Companies and donor organizations recognize that partnerships with NGOs are more business-like and devoid of the bureaucratic procedures and regulations that are often involved in attempts by companies to establish strategic alliances with public training institutions that in many cases lack autonomy in decision-making.

1.3 THE NEED FOR PARADIGM CHANGE IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

1.3.1 From TVET to TVSD

Skills can be acquired in formal public or private schools, institutions or centers, through informal traditional apprenticeships, or non-formal semi-structured learning. The 2008 ADEA Biennale underscored the need for a paradigm shift in the delivery of TVET towards a more holistic and inclusive concept of technical and vocational skills development that is more flexible and responsive to labor market demands. The Biennale strongly recommended the inclusion and recognition of informal and non-formal skills acquisition in national TVET delivery systems as opposed to the current practice in many countries where TVET is often associated with training delivered in a formal school or classroom setting. The paradigm change endorsed at Maputo also included the

adoption of TVSD as a more comprehensive terminology that encompasses and acknowledges the diversity of provision and learning pathways—formal, informal and non-formal—and implies the validation and recognition of all skills acquired from different learning environments. The concept of TVSD also includes the management of the issues and challenges related to the transition from school to work and human resource development in a lifelong learning context. TVSD therefore does not discriminate with regard to age or status in life of the learner or the type or level of training or learning environment.

Finally the Organisation for Economic Co-operation and Development (OECD), following in the footsteps of the Network for Policy Research, Review and Advice on Education and Training (NORRAG), endorses the expanded view of TVSD that embraces the inclusive and broad definition of TVET used in the UNESCO and ILO Recommendations for the 21st Century as: *"a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life"* (African Economic Outlook/OECD 2008).

Notwithstanding these definitions, the terms TVET and TVSD are used interchangeably in this synthesis paper.

1.3.2 From initial training to lifelong learning

Although TVSD is about the development of employable skills, it focuses not only on initial training but also on the issues of employability and the transition from training to employment. In other words, lifelong TVSD is about the acquisition of relevant knowledge and flexible skills that are necessary for up-skilling, re-skilling and multi-skilling of workers. The need for the continuing education and training of workers is underscored by the fact that poorly skilled or unskilled workers are more likely to be underemployed in low quality jobs and are also more likely to be among the first to be fired during economic downturns. Furthermore, a poorly-trained workforce is a severe drawback to raising productivity, since higher skills are required for boosting the productivity and competitiveness of enterprises. Upgrading the skills of workers, particularly youth workers, is the best guarantee that they will have the requisite competencies to take advantage of the emerging job opportunities that come with investments in new technologies by foreign firms in Africa.

1.4 PURPOSE OF THE SYNTHESIS

All over Africa, there is strong recognition of TVSD as a key driver of socioeconomic development. However, there appears to be considerable inertia and systemic obstacles to making TVSD a real engine of growth in many countries. Often, the gap between policy formulation and policy implementation is characterized by the absence of clear policy directions and choices, inadequate expertise and resources for effective policy implementation, and lukewarm political engagement.

As captured in the 2008 ADEA Biennale synthesis report, "There are too few programs, in general, and too few programs with effective design, implementation and quality control to meet the needs of a diverse and large population" (ADEA, 2008: 156). From recent literature and conferences on skills development, country case studies and the reports of international agencies and development partners on the role of TVSD in economic growth and poverty reduction, a growing body of evidence is emerging on how to revitalize vocational education and training in Africa.

This synthesis document reports on the current dynamics, policy reforms, practices and challenges of organizing TVSD systems to support the formation of adequate and competent human capital for sustainable socioeconomic development in Africa. By focusing on the key issues, challenges and main findings, the document suggests future directions for TVSD policy making and, more importantly, policy implementation.

It is worth restating that many innovative interventions are being implemented by African countries with the support of donor-agencies to promote skills development for socioeconomic growth. Most of these initiatives are relatively recent. At the moment, very few of them have been evaluated as to their impact on individual livelihoods, productivity, and economic growth. However, it is important for policy makers, government agencies, and training providers to be aware of the key challenges, policy choices, and practical interventions that are more likely to promote a more robust and effective delivery of technical and vocational skills in Africa. ■

CONDITIONS FOR LIFELONG TVSD FOR SUSTAINABLE SOCIOECONOMIC GROWTH IN AFRICA

Since the early 1990s, technical and vocational skills development in Africa has received considerable attention not only in the policy discourse of African countries but also in the growth strategies recommended by international development partners, bilateral and multilateral agencies and donors, NGOs and CSOs. In particular, the African Development Bank (AfDB) has recently renewed its call for a concerted effort to address the growing youth unemployment crisis in Africa (AfDB, 2011b). The Bank's action in favor of skills development has included investment in the upgrading and rehabilitation of existing training facilities in many African countries as well as encouraging the creation of partnerships with the private sector to support TVET for the acquisition of employable skills by the youth.

The conditions for lifelong learning and employability underscored by the G20 ministers responsible for TVSD have a universal appeal³. The statement on lifelong learning strategy urged countries to work towards ensuring:

- Access to quality education and vocational training for all;
- Alignment of education and training to the needs of the labor market with a systemic capacity to respond to change;
- Employability and flexibility during the individual's whole professional life; and
- Continuous improvement and system renewal.

Although this type of strategic reasoning is not unknown in Africa, many countries have been more concerned with making structural changes—such as establishment of policy and legal frameworks and TVET coordination bodies—than providing the necessary resources for systemic renewal and innovative delivery of TVET.

The recent social and political upheavals in North Africa,

the tragic involvement of thousands of impoverished, unemployed youth in armed conflicts and violence in parts of Sub-Saharan Africa, and the growing frustration and desperation of thousands of African youth in search of sustainable livelihoods, sometimes under precarious conditions abroad, have combined to create a deeper awareness and concern within the leadership and political class of many countries regarding the potentially destabilizing and politically disruptive capacity of unemployed young people, whether educated or unskilled.

The renewed commitment on the part of African governments to address the growing menace of despondency among the youth was re-affirmed by the African Union at its 17th Ordinary Session where leaders expressed concern about the rise in unemployment and underemployment, particularly among the youth, and the threat they pose to social cohesion, political stability and Africa's socioeconomic development prospects (AU, 2011). In this regard, the leaders pledged to accelerate efforts to reduce unemployment and underemployment; develop and harmonize labor market information systems in support of employment policy formulation, implementation and evaluation; and improve the responsiveness of the education and training systems of member countries to current and future labor market needs in order to address the pervasive and structural skills mismatch.

Although youth unemployment is predicated on a complex set of socioeconomic factors, the problem cannot be divorced from the availability of opportunities for skills training, the academic background and disposition of the learner, the skills in demand by the labor market, the trade and economic policies of the government, and the general climate for the creation and growth of businesses in the country. It is when the economy grows and businesses expand that the demand for new or more relevant skills grows and new skills training and job opportunities emerge. Dealing with the challenge of skills development for employment therefore requires the formulation and effective implementation of education and training policies

³ International Organization of Employers (IOE)/Business and Industry Advisory Committee (BIAC) to the OECD: Lifelong learning Strategy – G20 Meeting, March 2010.

that adequately take into account the key issues of access and participation, quality, relevance and employability, cost and efficiency of training, training partnerships and sustainable financing.

2.1. INTEGRATED AND COHERENT POLICY REFORMS

In many countries, instead of operating under a unified policy and legal framework, the TVSD system is governed by several legislative instruments. As a result, even the public provision of TVET takes place under different government ministries and departments and different management structures. The TVET landscape in many countries is therefore characterized by significant disparities in training standards and procedures for quality assurance, assessment, and certification. The absence of a single accreditation and quality assurance body for TVET has resulted in a proliferation of certificates that are not easily benchmarked or nationally and internationally recognized. Addressing these challenges has been at the center of the policy and governance reforms that countries have embarked upon to revitalize their TVSD systems.

Findings from the national case studies reviewed do indeed reveal that many countries have recently embarked on important legal and policy reforms geared towards a more holistic and flexible TVSD delivery system that is better coordinated and managed. Recent developments in this regard include the establishment of the Council for TVET (COTVET) in Ghana (Box 2), the Workforce Development Authority (WDA) in Rwanda, the National Consultative Commission on TVET (CNCFPT) in Senegal, the proposed establishment of a TVET authority in Kenya, and a new Business, Technical and Vocational Education and Training (BTVET) strategy in Uganda. The common objective underpinning these reform initiatives is to have a supreme body imbued with legislative functions and powers to:

- Regulate and coordinate training, and advise on all matters related to training;
- Promote access, equity and relevance in training;
- Establish a training system that meets the needs of both formal and informal sectors;
- License, register and accredit training institutions;
- License and register trainers;
- Assure quality and relevance in training;
- Accredit skills examination and curriculum development bodies;
- Conduct regular monitoring, evaluation and inspection of training institutions;
- Mobilize resources for development of training.

Box 2. Current TVET legal and policy framework in Ghana

Recognizing the need to reform TVET provision in Ghana, the Council for Technical and Vocational Education and Training (COTVET) was established by an Act of Parliament in 2006 to coordinate and oversee all aspects of TVET and formulate national policies for skills development across all levels (pre-tertiary and tertiary) and sectors (formal, informal and non-formal). The Council's coordination activities extend to all nine government ministries undertaking skills training of any kind and to private training providers. COTVET is governed by a 15-member board with an industrialist as its chairman and representation from the public and private sectors. In particular, the Council is empowered to:

- Rationalize the assessment and certification system in TVET;
- Take measures to ensure quality in delivery of and equity in access to TVET;
- Maintain a national database on TVET;
- Facilitate research and development in the TVET system;
- Source funding to support TVET activities;
- Facilitate collaboration between training providers and industry to promote demand driven curriculum development and placement, and national internship programs;
- Promote co-operation with international agencies and development partners;
- Advise Government on all matters related to the management and improvement of the TVET system.

Since it came into existence, COTVET has been credited with:

- Piloting competency based training in three different institutions at three different levels;
- Generation of occupational standards, unit specifications and learning materials for some trade areas in the formal and informal sectors;
- Establishment of a US\$70 million Skills Development Fund;
- Organization of an annual National TVET Week to enhance awareness on and perception of TVET;
- Implementation of a National Apprenticeship Programme for early school leavers from the educational system.

Source: Baffour-Awuah and Thompson (2011)

In Ethiopia, a National Adult Education Strategy (NAES) has been developed to address the challenges of poverty reduction, with particular emphasis on the youth (15 years and older) and women (GIZ/Quincke et al., 2011). Burundi recently concluded a consultative review of its TVSD system with a proposal to establish a multi-stakeholder governing body that would give more autonomy to the subsector and to training institutions. The policy emphasis is on better and more efficient management and financing of training delivery.

One of the essential conditions for achieving training effectiveness and relevance of training programs is the active participation of the private sector in the delivery of TVSD, at both institutional and national levels. However, in most countries, private sector and community involvement in training policy design and governance at the school or college level is limited to representation on the governing boards of the training institutions.

2.2 MULTI-STAKEHOLDER GOVERNANCE STRUCTURES AND PARTNERSHIPS

The primary objective of vocational education and training is the acquisition of job-relevant skills for gainful employment. Skills training for employment must therefore necessarily involve the concerted participation of several actors and players. Training needs are best articulated by employers and the labor market, while investment in instructor training, physical infrastructure, learning equipment and facilities can be provided through government budgetary allocations and donor support. The creation of partnerships is therefore at the core of strategies for developing effective TVSD delivery systems. Evidence from the national case studies reviewed for this synthesis paper shows that public-private multi-stakeholder partnerships involving key players such as government ministries responsible for education and training, enterprises, international donors and development partners, local communities, training providers, professional bodies, NGOs, and the media are capable of generating synergies for the development of employable skills.

2.1.1 Creation of multi-stakeholder partnerships

In Rwanda, a partnership agreement between the Ministry of Education and some development partners to support TVET delivery contributed to the formation of the Technical and Vocational Schools Association (TEVSA) embracing both public and private training providers in the country (Musobo and Gaga, 2011). TEVSA has been instrumental in forging collaboration among training

providers in the area of institutional benchmarking, resource-sharing, and the organization of common examinations and inter-schools skills competitions. TEVSA has also played a significant role in promoting an “employer forum” comprising the Ministry of Education, industry, the Private Sector Federation, and training providers to support learner internships, apprenticeship training, and advocacy. In West Africa, Togo’s charter for public-private partnership in TVSD is considered as a good example of government commitment to public-private collaboration in skills development.

2.2.2 Institution of training levies

The payment of training levies by firms and businesses is a fairly widespread example of employer participation in the financing of TVSD in many countries. South Africa and Mauritius, for example, have instituted a tax system under which employers are obliged by law to pay a levy equivalent to 1% of the firm’s payroll into a training fund for skills development. In South Africa, the fund is managed by the various occupation-based Sector Education and Training Authorities (SETAs). The SETAs have a mandate to carry out skills development and labor market research, pay grants to companies for undertaking skills development activities and for the training of their employees, and initiate action to address scarce and critical skills shortages in their relevant economic and industrial sectors. SETAs also support centers of excellence, where training excellence is determined by the level of internal and external efficiencies of the centers, particularly in terms of the percentage of graduate trainees who have found employment in the sector concerned and the level of employer satisfaction regarding the training delivered. The levy-grant system operated in Mauritius is a private sector initiative led by the Mauritius Employers’ Federation and managed by the Industrial and Vocational Training Board. Under the levy-grant system, employers who train their own employees have these training costs reimbursed by the training fund (Roland and Koontee, 2010).

2.2.3 Private sector involvement in TVSD design and management

Private sector involvement in the delivery of TVSD has been driven in part by the pervasive mismatch between the skills supplied by training institutions and the actual skills needs of employers. In a collaborative effort to achieve greater congruence in the supply of and demand for skills, the private sector in Nigeria partnered the National Board for Technical Education to establish Vocational Enterprise Institutions (VEIs) and Innovation Enterprise Institutions (IEIs) to deliver industry-specific training

at the post-basic and postsecondary levels, respectively (Muhammad, 2009). Funding for these institutions includes contributions from industry, the Nigeria Education Trust Fund, and the Petroleum Development Technology Fund.

One of the most innovative skills training partnerships in Africa in recent years is the strong participation of professional bodies and associations in the governance and management of public vocational training centers in Tunisia (Halleb, 2011). Under this partnership arrangement, the collaborating professional body determines the training package, which consists of the training needs, the type and level of training required, the annual cohort of trainees, and the investments necessary to deliver the prescribed training. The central government, through the Ministry of Vocational Training, retains ownership of the center as a public institution and validates the training package. The Ministry also undertakes capital investment projects and assures the coherence of the various training projects managed by different professional bodies and coordinates their activities where necessary. However, the professional bodies are fully in charge of the design, management and certification of the training programs, thus ensuring close pedagogical cooperation between the centers and enterprises, including better organized internships and apprenticeships.

One major benefit of this type of management partnership is the capacity of the training centers to quickly adapt to the changing needs of firms. The recruitment of center personnel is decentralized and linked to the training needs of the centers while budgeting and resource allocation is performance based and results oriented rather than activity based. Clearly, the success of this type of partnership is dependent on the willingness of the central government authorities to delegate enough financial and operational autonomy to the centers. The other success factor is the availability of well organized professional bodies with the requisite technical expertise and management capacity in the country's key economic sectors.

2.2.4 Strategic alliances between NGOs and development partners

With regard to NGOs, a review of the partnership environment in Africa shows that a number of them are developing strategic alliances with development partners and business firms to undertake vocational education and training in underserved sectors—such as farming and health delivery services—targeted at people living in hardship areas. The case studies from Kenya, South

Africa, Uganda presented by the German International Cooperation Agency (GIZ) are illustrative of this type of partnership (GIZ/Adam, 2011). Many Danish NGOs are involved in similar partnerships with mutual benefits to the corporate image of the firms, the outlook of the NGOs, and the livelihood and economic fortunes of the target groups (Box 3).

Box 3. Strategic alliance between the EU and the NGO Save the Children

The European Union has entered into a three-year contract of EUR 2.9 million with *Save the Children Denmark* to train and secure employment for young people in Somalia. Youth unemployment in Somalia is above 40% due to the protracted civil war and general insecurity in the country.

The program focuses on the skills needs of the poorest and most vulnerable groups: returnees, internally displaced people, ex-militia, and people with disabilities due, for example, to landmines; minorities, girls and women. The target age group is 16 to 25 years. Skills training areas are based on current market surveys carried out by local stakeholders, e.g., employers, local authorities and relevant ministries.

Trainees receive either seven and a half months of institution-based training plus a month of internship, or six months of enterprise-based skills training. All trainees graduate after having worked with a contractor for 10 days. The contractor checks the quality of the training and tests the trainee. During the training period, the trainees are paid US\$30 per month by *Save the Children Denmark*.

Save the Children Denmark cooperates with relevant ministries and supports stakeholder meetings for trainees, trainers and enterprises.

Tracer studies carried out in 2007 and 2008 with regard to an earlier successful project showed laudable results with a post-training employment rate of 70.1% based on a sample of 927 graduates.

Source: BU-Net (2011)

2.3 IMPROVING QUALITY AND QUALITY ASSURANCE MECHANISMS

Quality is often defined as “fit for purpose”. However in a market economy, the quality of goods, products, and services may be linked to their “marketability”. How can TVET students be prepared to meet the quality demands of the job market? What are the factors that contribute to raising the marketability or quality of graduates of the TVET system? In formal TVET institutions, training quality is more likely to be enhanced by the availability of well-trained and practically-oriented teachers and instructors with excellent pedagogical skills and experience from the world of work, appropriate learning and teaching materials, and adequate training equipment and facilities. In spite of the primordial role of the TVET teacher in the transmission of skills, in most countries there is no mandatory requirement that prospective teachers demonstrate a certain level of practical skills competence or experience in enterprises before they are hired.

2.3.1 Qualification of trainers

In a recent survey in Kenya, about two-thirds of TVET teachers confessed that they were more comfortable teaching theory than practice (Ferej et al, 2011). Many of the teachers lacked the practical skills required for quality job-market relevant training with more than one-third having little or no enterprise-based work experience. With regard to staying abreast of developments in new technologies, new production equipment and tools, and the rapidly changing dynamics of the workplace, more than 50% of the teachers mentioned the Internet as their principal source of information. In order to equip teachers to deliver quality skills training, it is important for the training institutions to support their teachers with opportunities and resources for continuous professional development and practical skills upgrading courses. Subject matter mastery, practical enterprise-based work experience, and pedagogical training are the attributes of an effective TVET teacher. In this regard, it may be more cost-effective for technical teacher education and training colleges to focus on offering mainly pedagogical training to students who already have the requisite level of subject mastery and some experience in enterprises.

2.3.2 Integration of ICT into TVSD delivery

The integration of ICT and technology-mediated teaching and learning into training provision can also contribute to quality delivery. Unlike the situation in schools, colleges and universities, the use of ICT in TVET delivery in Africa is still in its infancy. The Commonwealth of Learning (COL) has recently embarked on a Flexible

Skills Development (FSD) project involving 10 TVET institutions in six African countries to promote the use of educational media and technology in TVET teaching and learning (Richardson, 2011). Educational media includes the teacher, text, audio, video and e-learning materials while educational technology includes communications equipment that can be used to deliver media, such as radio, DVD players, mobile phones, and computer networks. The FSD concept pioneered by COL is characterized by a flexible, learner-centered approach to education and training provision with an increased focus on the process of learning rather than teaching, and the use and sharing of open education resources (OERs). FSD does not necessarily mean Internet based teaching; it means students can learn at their own pace using the appropriate technology, with or without the Internet.

Although increased ICT and vocational skills of learners enhances quality and employability, the availability and management of ICT infrastructure remains a challenge in many TVET institutions. The FSD study reveals that in general TVET providers in Africa lack the technical expertise for the development of their ICT infrastructure. Other challenges include the capacity of staff to utilize ICT in teaching and the comparatively high cost of Internet bandwidth in many African countries.

2.3.3 Adoption of competency based training methodology

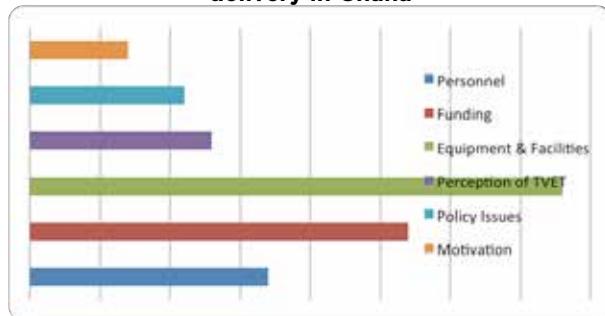
In recent years, the CBT approach has been acknowledged as a quality-improvement training methodology. Many countries have started piloting the CBT methodology in their training systems. Employer appreciation of CBT graduates in Ghana has been very high (Baffour-Awuah and Thompson, 2011). This is not surprising since industry has been actively involved in the delivery of CBT in the country. The involvement of industry has been facilitated through the participation of Industry Training Advisory Committees (ITACs) in the development of training and occupational standards and assessment of graduates. However, the effectiveness of CBT also requires teachers who are trained for CBT delivery and are regularly exposed to new technologies through periodic internships in industry.

2.3.4 Enabling TVSD environment

Training for high-quality skills is also closely linked to the availability of strong, professional management and leadership capacity at both the institutional and national levels as well as a suitable quality monitoring and evaluation mechanism to drive the entire system. A

recent survey conducted in Ghana shows that TVET practitioners rate the availability of appropriate training equipment and facilities, adequate funding, and the quality of staff as the most important critical factors for quality TVET delivery (Figure 1). This finding reinforces the need for public-private partnerships between the training market (institutions and centers) and the employment market (industry and businesses). In effect, the inability of governments to adequately respond to the equipment and funding requirements of their training institutions can be compensated for by an active involvement of industry in training provision. The benefits of such institution-industry collaboration will include access of learners to modern enterprise-based production equipment and machinery for practical training, the effective participation of industry experts in the training process, and reduced training costs to the institution.

Figure 1: Critical factors affecting TVET delivery in Ghana



Source: Baffour-Awuah and Thompson (2011)

2.3.4 Need for a sound basic education

The acquisition of effective work-related skills also depends on a sound basic education. Rigid tracking of students into vocational training, especially at an early stage, diminishes the prospect of developing flexible skills. Quality TVSD delivery, especially in the informal sector, is hampered by the poor academic preparation of learners. In effect by age 15, many young people in Sub-Saharan Africa drop out of school (UNESCO, 2010). These young people, who are often candidates for skills training in the informal sector, leave school with a weak foundation in basic learning skills that are vital for developing flexible, problem-solving capabilities necessary for acquiring more technical and specialized skills. Conversely, students with sufficient basic academic education are better able to acquire higher-level vocational skills. In South Korea, for example, academic and vocational students in secondary school share as much as 75% of a joint curriculum (Adams, 2007).

It must be noted, however, that quality in the informal sector is very often measured by the success of the goods and services produced for sale in the marketplace. The quality of a crafts person is seen in the quality of his or her products or services. Quality has a market value and is a critical success factor in the globalized market economy. This is the bottom line.

2.4 IMPROVING ACCESS, PARTICIPATION AND EQUITY

2.4.1 Need for greater participation in TVSD

Access to skills development opportunities is a prerequisite for entry into the employment market. Improving access to vocational skills acquisition for all age groups and categories of learners regardless of sex, physical disability, or geographical location should therefore be a major priority for all governments. The participation of the youth and other vulnerable groups in skills development programs that lead to gainful employment is critical for the promotion of social cohesion and solidarity, poverty reduction, good democratic governance, and responsible citizenship.

However, enrollments in TVET are generally low in African countries, although there are a few exceptions such as Algeria, Benin, Mali, Mauritius, and Rwanda. The African Economic Outlook (AEO, 2008) reports that between 2001 and 2005, enrollment in technical and vocational education programs at upper secondary and post-secondary non-tertiary level as a percentage of total secondary enrollment was only 5.2% in Sub-Saharan Africa, compared to 18.6% in OECD countries and 11.6% in Latin America. For individual countries, the figures are 1-4% for countries like Ghana, Kenya, Senegal, and Uganda and 5-9% for Botswana, Morocco, South Africa, and Tunisia (Table 1). The enrollment figures are much higher for South East and East Asian countries, for example South Korea (19%), China (18%), Indonesia (16%), Thailand (18%), and Singapore (13%).

These figures, while not giving the whole picture of the link between high-level vocational education and economic development, nonetheless provide strong evidence of the transformative role of TVET in supporting economic growth. It is therefore important for African countries to promote and encourage access to TVET, particularly at the secondary and postsecondary levels. Strategies to increase access include provision of relevant physical and academic infrastructure to raise the absorption capacity of TVET providers and the diversification of training programs to satisfy the diverse skills training needs of learners. Also,

partnerships with business enterprises and companies can generate or free additional resources that could be used by training providers to support greater enrollments.

Table 1: TVET participation rates in selected African countries

Enrollment >10%	Enrollment 5-9%	Enrollment <5%
Algeria	Botswana	Chad
Benin	Burkina Faso	Ethiopia
Cameroon	Burundi	Eritrea
Congo	Cape Verde	Gambia
DRC	Djibouti	Ghana
Egypt	Morocco	Guinea-Bissau
Libya	Mozambique	Kenya
Mali	South Africa	Lesotho
Mauritius	Togo	Mauritania
Rwanda	Tunisia	Niger
		Sao Tome & Principe
		Senegal
		Sudan
		Uganda
		Zambia

Source: Kingombe, 2008 cited in Maponga et al., 2011

The geographical distribution of training institutions is as much a factor of inequity and unequal access to TVSD as financial constraints. In many countries, the majority of good formal TVET institutions are located in urban centers, making it difficult for rural dwellers—especially poor learners—to get access to quality skills training. Access is also hampered by the poor public perception of vocational education and training. In many countries, technical and vocational education is viewed as a last resort or second choice to general education rather than as a viable avenue for acquiring employable skills for sustainable livelihoods. Unfortunately, there is evidence that general education generates far higher returns to the individual than technical and vocational education, especially in Africa (Oketch, 2008; Kahyarara and Teal, 2006). Such evidence adds to the lack of enthusiasm for vocational education and training. The poor public perception of TVET is a contributing factor to the lack of attractiveness of this field of human resource development.

Research-based empirical evidence may be necessary to understand the underlying causes of the poor status and attractiveness of TVET. According to the Educational Research Network for West and Central Africa (ERNWACA) there is urgent need for extensive research to identify the

conditions (social, political, economic) and resources (human, financial, material) that are indispensable to the development of a credible and attractive TVSD system in Africa (Azoh et al. 2011). Apart from South Africa, very little empirical information and data is available on the important issue of access and participation in technical and vocational skills development in Sub-Saharan Africa. In Burkina Faso, for example, the number of research studies dealing specifically with the question of access represents only 1% of the total number of studies commissioned or produced on all aspects of TVSD in the country over a period of 20 years from 1990 to 2010.

In almost all Sub-Saharan African countries, informal and private sector training providers account for the bulk of opportunities available to all categories of learners for the acquisition of employable skills. Traditional apprenticeships, NGOs and FBOs, and on-the-job training provide the most opportunities for skills development for the vast majority of African youth (ILO, 2007; Wachira et al. 2008; Walther, 2007). Informal sector employment and self employment dominate in both rural and urban areas in Africa. In Ethiopia, the informal sector accounts for 90% of all labor market activities and jobs⁴. In Morocco, a survey conducted in the informal sector revealed that about 80% of employers or employees acquired their skills on the job (Ait Soudane, 2005). As at 2010, two-thirds of all formal training institutions in Senegal were privately owned (Ngone, 2011). Private TVET providers also enroll more than half of all learners in the country (Box 4).

Box 4: TVSD provision in Senegal - private providers dominate

Of the 213 formal sector TVET providers in Senegal, 143 (representing 67%) are private, compared to 70 (33%) owned by the State. Total enrollments in both public and private institutions increased from 32,868 to 37,473 between 2007 and 2010, with an average annual enrollment growth rate of about 4.5%. Private providers consistently account for more than half of the total enrollments over the past four years (56% in 2007; 57% in 2008; 58.7% in 2009; and 56% in 2010). However, the majority of training institutions are located in urban centers, with only 16% in rural areas.

Source: Ngone, 2011

⁴ Central Statistical Authority, Ethiopia (2003). Report on urban informal sector, sample survey. January 2003.

2.4.2 Increasing access and participation in the informal sector

One of the reasons for the increasing importance of the informal sector in the provision of skills training is the inability of public providers to cater for the skills needs of the growing number of leavers of the basic education system. The rapid expansion of enrollment in primary and lower-secondary education in most countries, fuelled in part by the Education for All (EFA) process, without a corresponding expansion of opportunities for upper secondary school education has led to the presence of a large population of youth who do not have much chance to continue their education beyond primary or lower secondary school. Education and training systems are therefore confronted by a social demand for post-basic skills training opportunities as well as by economic concerns linked to youth employability and the dominance of the informal economy in most countries (World Bank, 2008). Private sector and informal sector providers appear to be better placed to respond to these social and economic pressures.

Another reason for the strength of traditional apprenticeships is the fact that they provide the youth who have low levels of education with practical employable skills (Monk et al., 2008). In Kenya, Senegal, Tanzania, Zambia, and Zimbabwe, half of all informal sector workers had only primary education or lower (Haan, 2001). However, the strength of traditional apprenticeships may also constitute a handicap, as poorly educated workers lack the theoretical basis for high-level skills training. Skills development in the informal apprenticeship sector therefore tends to be slow in adapting to technological advances, thus perpetuating the use of traditional (sometimes outmoded) learning methodologies and offering little theoretical knowledge. Nevertheless, this situation appears to be evolving with the proliferation of mobile phones and the Internet. It has been reported that some garage owners in Benin, for example, access the Internet to download diagnostic software for the repair and servicing of modern high-technology vehicles (Séverino and Ray, 2010). The traditional apprenticeship system is also undergoing reforms in some countries such as Burkina Faso, Ghana, and Senegal where a number of apprenticeship workshops have been identified for equipment upgrading and master crafts persons have been selected for pedagogical training to support a renovated traditional apprenticeship system in which trainees alternate between theoretical learning in a classroom setting and practice in modernized workshops. Savadogo (2011) has documented recent developments regarding renewal of traditional apprenticeship systems

in the UEMOA region. In Senegal, 334 traditional apprenticeship workshops have been selected to participate in this type of renovated system (Ngone, 2011).

Some NGOs have been active in promoting innovative partnerships and income generating activities in the delivery of both formal and informal TVSD. Danish NGO Humana People to People operates 11 vocational schools in six countries where theoretical and practical instruction is combined with internships in enterprises. Humana People to People has also been involved in improving professional skills for rural development and agriculture in Guinea Bissau, Malawi, Mozambique, and Zimbabwe. About 75,000 peasant farmers have been undergoing training in farm improvement techniques under this scheme since 2009 (BU-Net, 2011).

2.4.3 Increasing female participation in male-dominated occupations

Female participation in TVSD is generally low in the engineering and technology disciplines. In the West African sub-region, female participation in these traditionally male-dominated disciplines is less than 28%. However, this participation rate rises to more than 50% in the business and commercial disciplines. A notable exception is in Sierra Leone, a post-conflict country, where there are more females than males enrolled in TVSD⁵. Non-formal TVSD has the advantage of catering to the skills needs of different categories of learners and can be tailored to the learners' needs. Learners with a low educational background can be taught basic skills for economic survival while those with higher education backgrounds can be trained to transform their theoretical knowledge into productive occupational skills in a structured but non-formal approach.

Non-formal TVSD has proven to be very successful in empowering young women to enter the job market in Kenya under a scheme pioneered by the African Centre for Women, Information and Communications Technology (ACWICT). ACWICT is a non-profit organization promoting young women's access to and knowledge in ICT (Adam, 2011). One of its flagship programs, the Youth Empowerment Program (YEP), was launched in Kenya in 2007 in partnership with Microsoft Corporation and the International Youth Foundation. The objective of the training program was to improve the employability of women by equipping them with ICT skills, life skills, and entrepreneurship skills (Box 5). The program also

⁵ Report of the ECOWAS-UNESCO BREDA international workshop on revitalizing TVET in the ECOWAS region held in August 2009.

provides learners with enterprise development services as well as post-training job placement support services to facilitate their transition or insertion into the world of work. These services are offered by ACWICT through collaboration with a network of employers and include one-on-one career counseling of program participants; sharing of information about job opportunities and vacancies by email and SMS to graduates of the program; recommendations to employers on graduates; assistance with the preparation of business plans and submission of plans to micro-finance institutions for possible funding; and advisory on incubation of new businesses.

Box 5: The ACWICT Youth Empowerment Program in Kenya

The YEP program was designed to accommodate 1,200 women participants; however, only 1,105 completed the training. Regarding learner profiles, 75% had completed secondary school while 20% were graduates of higher education institutions. Only 5% had not completed primary school.

The training program consisted of 40 hours of life skills training (mainly creative thinking, decision-making, work ethics, problem-solving, and teamwork); 60 hours of ICT training (incorporating PC fundamentals, MS Word, spreadsheets, Internet); and 50 hours of entrepreneurship training (comprising communication skills, record keeping, and identification of business opportunities).

Participants were surveyed before starting the training, at the end of the program, and about six months after completion of the program. The evaluation of the program revealed that 52% of the 1,105 women trained had successfully been placed in a paid job or were in self employment, voluntary service, or internship. This was against the program objective of 70%.

The program was donor-funded with a grant of US\$74,080. The unit cost of training was therefore about US\$67. Participants paid a token commitment fee.

Source: GIZ/Adam, 2011

Despite the success of the YEP program, a major drawback of this type of donor-driven program is its lack of sustainability. When donor funds come to an end, the programs die out. Furthermore, some donor-funded projects are often limited in time and are not always aligned with the country's skills development priorities or

socioeconomic realities. Donor-funded programs that are built into a country's human resource development agenda are more likely to continue well beyond the program expiry date, which is not the case with many NGO-driven skills training initiatives.

2.4.4 Targeted interventions in post-conflict countries

Skills development in post-conflict countries or contexts is particularly challenging. The TVET environment in post-conflict zones is often characterized by damaged or destroyed academic infrastructure, poor learning facilities, low capacity and high demand for skills training, inadequate and poorly qualified teachers, and a dearth of data and statistics on the TVET sector. Women and girls are hardest hit by the breakdown of the social and economic order and the erosion of family values and solidarity in such situations. In war and conflict situations, women and girls often become victims of rape, sexual abuse and forced pregnancies or simply just drop out of school. A program to address the employment needs of child-mothers, victims of sexual abuse, and societal stigmatization was recently launched in Congo Brazzaville as a partnership between the NGO Fondation Congo Assistance (FCA) and the Ministry of Technical and Vocational Education (Dzondhault and Banoukouta, 2011).

The "house-school" (*Maison-Ecole*) program, initiated by FCA, is designed to assure the employability and economic livelihoods of out-of-school child-mothers by equipping them with vocational and family life skills. The "house-school" concept is based on a combination of theoretical and practical apprenticeship training in a family setting without uprooting the child-mother from her local environment. Young women and child-mothers between the ages of 15 and 20 years with at least a lower secondary school qualification are selected from among the most marginalized groups. The local community helps to identify potential beneficiaries of the training program. Under the training partnership agreement, FCA provides the academic infrastructure and training equipment while the Ministry offers its technical expertise in the selection and training of trainers, most of whom are master crafts persons. The major disciplines taught are tailoring and dressmaking, cosmetology, catering, and hotel management. The course structure consists of six months of theory interspersed with industrial visits to production workshops, followed by three months of internship in an enterprise, and 12 months of mentorship. Successful trainees are awarded a certificate of proficiency.

However, the overall outcome of the program does not appear to measure up to expectation. Of the 137 beneficiaries of the program over a two-year period, only 61, representing 44.5% of the participants, have successfully transited into employment of any kind. In addition, 10.2% of the participants dropped out and did not complete the program. The challenges faced by the program included inadequate funding and poor budgeting, pedagogically inexperienced instructors and master crafts persons, inadequate equipment and training facilities, and non fulfillment of a promised provision of tool kits to successful trainees. In a few cases, master crafts persons abandoned the program for non-payment of their allowances, resulting in the closure of the training centers. In some cases, interference by local politicians in the operations of the house-schools, including the forced admission of unqualified candidates, had a negative impact on their performance. These challenges notwithstanding, the lessons learnt are expected to help redesign the operational framework of the schools, address the implementation bottlenecks, and generally improve the system delivery and efficiency.

The approach adopted by pan-African NGO Forum for African Women Educationalists (FAWE) to address similar employability concerns of girls in post-conflict contexts is different from the “house-school” experience in Congo Brazzaville. The FAWE program of economic empowerment through TVET for girls in the post-conflict countries of Burundi, Liberia, and Sierra Leone was funded under a FAWE-DANIDA partnership (FAWE 2011). Unlike most skills training programs that target women and girls, the FAWE intervention was designed to facilitate the training of girls in traditionally male-dominated courses, such as auto mechanics, welding, masonry, plumbing, electricity and electronics, general building, and general agriculture. Incidentally, it is in such occupational areas that technical skills are most required for rebuilding and rehabilitating the economic and physical infrastructures of post-conflict countries. This program thus marks a clear change in approach from the majority of donor-funded skills acquisition schemes for females. The girls were enrolled in courses that are economically viable in post-conflict contexts but from which girls are traditionally excluded.

The program objectives required FAWE to work closely with the country focal point designated by the ministry of education and to partner with TVET institutions in each program country to deliver training, develop the capacity of staff in the TVET institutions, and train them

in gender-responsive pedagogy, as well as to link graduates to job opportunities. Although a full impact evaluation of the program is yet to be conducted, it is apparent that economic empowerment of girls through the acquisition of employable skills cannot stop with training alone. It is equally important to deliver job placement support services to facilitate the transition of learners from training to the world of work. Job placement is a key issue in TVET delivery, and in this particular program the beneficiaries have expressed the wish for FAWE to establish production and service workshops where the graduates may be temporarily engaged to work as part of a post-training support scheme.

Box 6: Pre-requisites for TVSD interventions in post-conflict countries

To maximize the impact of TVSD interventions in post-conflict situations, the Commonwealth Association of Polytechnics in Africa (CAPA) made the following recommendations at an international conference in Sierra Leone in May 2007:

- (i) TVET in post-conflict countries should be seen as giving hope, confidence and economic empowerment to the youth and vulnerable of society, in particular, females, ex-combatants and survivors of war and conflict.
- (ii) Scholarship schemes should be instituted for survivors of war and conflict to enable them to acquire knowledge and skills for sustainable livelihoods and further education.
- (iii) TVET providers should emphasize short duration, job-specific and ready-to-use skills training necessary for infrastructure and economic development.
- (iv) Training should be delivered close to the domicile of the learners at community skills-training centers or through the use of mobile training workshops or vans, where possible.
- (v) Training programs should include peace education, basic literacy and numeracy, and family life skills.
- (vi) Post-training support services, including micro-financing and mentoring, should be provided to successful trainees to facilitate their insertion into the world of work.

Source: FAWE, 2011

2.5 EFFECTIVE MECHANISMS TO ENSURE RELEVANCE OF TRAINING AND EMPLOYABILITY

An often-repeated criticism of formal TVET institutions in Sub-Saharan Africa is that they deliver skills of limited relevance to contemporary economic and social needs, and at high cost, often marginalizing the poor and the informal sector. There are no systematic evaluation, graduate tracer systems, and effective two-way linkages between industry and TVET. In many cases, there is a dearth of local textbooks and an over-reliance on imported foreign textbooks that are expensive and often not suitable for the curricula. Students therefore rely mostly on simple learning material handouts or lectures. Teachers, meanwhile, rely on inadequate or outdated resources. According to UNESCO, technical and vocational education in the formal sector is often driven by inappropriate curricula, which is detached from employers' real needs (UNESCO, 2010). Training relevance impacts directly on the employment prospects of TVET graduates. When graduates are not equipped with the skills in demand by the labor market, it takes them much longer to find a job. This may be one reason the average duration of unemployment for first-time job seekers in many African countries is measured in years rather than months. In Ethiopia, Malawi, Mozambique, and Zambia, young graduates face about five years of inactivity before finding work (Garcia and Fares, 2008). The widespread phenomenon of youth unemployment is often linked to the fact that many young people and school leavers simply do not have the relevant skills for productive employment.

2.5.1 Identification of labor market needs and skills gaps

The acquisition of technical and vocational skills must lead to gainful employment. For this to happen, it is important that training is geared towards the needs of the labor market. One way of doing this is to create a mechanism for identifying and predicting the skills gaps and shortages at the workplace by following the dynamics of the labor market. What are the human resource requirements for the different sectors of the economy? In order to engineer a TVET delivery system that is flexible and responsive to the skills needs of the employment sector, the establishment of a labor market observatory or labor market information system is considered a priority.

The function of a LMIS is to collect, process, and make projections from information available from employment ministries and agencies, population census and household

surveys, tracer studies that track the employment destinations of graduates, labor market related reports produced by economic think-tanks, and feedback from employers. Such evidence-based information can then be used by training institutions for the revision of their curricula or for the design of new training programs and courses that match the skills in demand by the economy and thus enhance the employability of their trainees. The employed and unemployed can also use LMIS information to determine the specific type of education and training program they wish to pursue or for upgrading their skills or re-skilling. An effective and efficient LMIS can also therefore promote lifelong learning.

In an era of globalization and internationalization of production systems where employment prospects and employee skills requirements are rapidly changing, a functional LMIS becomes an indispensable tool as regards skills development, productive employment, and sustainable livelihoods. Globalization, new technologies, and new production systems are creating demand for new skills and it is important for skills training providers to take cognizance of the risks associated with outdated curricula and training packages.

Although each country's labor and socioeconomic environment will determine the complexity of its LMIS, The Gambia's experience in establishing a national LMIS to help determine the skills needs in its economy is worth a careful study (Lisk, 2011). It has been recommended that the development of a national LMIS for The Gambia should involve a wide range of stakeholders, including producers and users of labor, national training authorities, higher education institutions and other training providers, NGOs, and job-seekers as well as regional and international labor-related organizations and agencies such as ILO and UNDP.

What are the practical and operational issues involved in collecting and analyzing labor market indicators which are the driving elements of a national LMIS? The Gambian case study provides useful policy guidelines and practical recommendations (Lisk, 2011). According to the ILO and the Economic and Statistical Observatory for Sub-Saharan Africa (AFRISTAT), the key indicators of the labor market in a country should include: labor force participation rate, employment to population ratio, employment by sector, unemployment rate, employment in the informal economy, educational attainment and literacy rate, manufacturing wage indices, occupational wage indices, and incidence of poverty. The African Union

Commission (AUC) is also in the process of developing a common minimum list of LMIS indicators for African countries (Lisk, 2011).

The Mali case study on the design of the Decennial Program for the Development of Vocational Training and Employment (PRODEFPE in French) is also based on the identification of sectors in the economy where human resources are needed (Box 7).

Box 7: Growth sectors identified in Mali

Contributions to the elaboration of PRODEFPE, with the support of professional bodies and public technical services, have resulted in the identification of training fields and high potential trades—47 occupational areas and 147 promising trades—for 14 economic development sectors and cross-sectoral fields and related occupations.

1. The transportation sector includes two training fields: transport and logistics; mechanics.
2. The public works sector includes two fields: roads maintenance and works management.
3. The building construction sector includes masonry, carpentry, tiling, painting, and electricity.
4. The water sector includes two fields: plumbing and water management and supply.
5. The environmental sector comprises two fields: sanitation and security.
6. The energy sector has one field: alternative and renewable energy.
7. The hospitality sector includes the following: accommodation, cooking, and catering.
8. The tourism sector consists of one field: tour operators.
9. The industrial sector consists of one field: industrial machines operators.
10. The mining sector includes two fields: quarrying and mineral extraction.
11. The craft sector consists of 15 training fields.
12. The agricultural sector includes two fields: cereals production and horticulture.
13. The animal husbandry sector includes: livestock and meat, poultry, animal feeding, leather and skins processing, dairy production, apiculture, fish farming, and aquaculture.
14. The water, forestry, fisheries sector is made of one training field linked to three “production” trades.

Source: Traore, 2011

PRODEFPE is not the result of a complex mechanism such as the LMIS. However, it has the merit of giving an indication of the skills gaps to be filled over a period of time. It was designed using a consultative process with public-private partners backed by studies on employment needs and skills development issues in the country. As noted, in terms of training needs, 14 trades and 147 occupations have been identified together with an estimated number of people to be trained (Box 7).

2.5.2 Formulation of a human resource development strategy

Mauritius has drawn up a comprehensive human resource development plan as a response strategy to the skills shortages and needs of the growth and emerging sectors in its economy (Sukon et al. 2011). The plan indicates areas where skills mismatch exists; areas of scarcity in various sectors of the economy; sectors likely to generate employment opportunities; promising occupational areas; and required educational skills categories. The plan also makes projections for labor supply and demand, that help, among other things, to:

- Plan educational programs and estimate what expansions in enrollment must be provided for in order to meet the future needs of all types of workers;
- Evaluate the feasibility of launching new skills training programs;
- Guide individuals in their career paths.

In essence, the Mauritian human resource development plan provides a basis for training and educational planning, guidance and counseling, as well as helping to alert government and other stakeholders to emerging skills and manpower challenges.

2.5.3 Community college concept and opportunities for lifelong learning

In order to enhance the relevance of their training programs and the employability of their graduates, African TVET institutions can learn from the community college concept of North America. In particular, the approach of community colleges in Canada to skills development which is based on the principle of “anybody can learn” is a model that is well adapted to not only providing entry-level job skills for new learners but also to up-skilling, re-skilling, and multi-skilling of workers in a lifelong learning context (Assignon and Roy, 2011). Furthermore, the articulation of community colleges with universities ensures that learners can develop their skills to the highest level possible.

At the Community College of New Brunswick (CCNB) in particular, the strong involvement of industry, employers, and the community in the design and delivery of the courses and programs of study; diversified course offerings of more than 90 courses annually; staff applied research activities and involvement in the development agenda of the community; and collaboration on international projects have contributed to enhancing the employability of graduates. In reality, 90% of CCNB graduates find employment within a period of six months after graduation (Assignon and Roy, 2011). Notably, 25% of the students who graduated from the college in 2006 created their own enterprises.

Assessment of learner achievement is carried out on a continuous basis, is outcome-based and involves teachers as well as personnel from industry (Assignon and Roy, 2011). Furthermore, the introduction of any new program at the college is always the result of a collective effort by relevant stakeholders, including experts in the proposed area of professional activity, teachers, curriculum developers, and the various academic boards. The demand to introduce a new program must generally come from the local community or industry or be based on a scan of the job market environment.

The case for the adaptation of the community college concept to the African context is strongly supported by the fact that this system of technical and vocational education has successfully taken root in similar developing economies such as Vietnam and the Philippines. Also, the historically rural contexts in which some of the community colleges developed in parts of North America are similar to the prevailing socioeconomic environment of many African countries today.

2.5.4 Improving TVSD in the agricultural sector

The issue of relevant skills development for youth employability can also be addressed by focusing on the job opportunities in agriculture. The agricultural sector provides employment for more than 65% of the population in many African countries, a figure that represents about 500 million people, mainly rural dwellers (Beaujeu et al. 2011). Yet the sector is underserved by the various education and training systems. It has remained under-developed and dominated by peasant farmers using outmoded or inefficient farming systems and practices.

However, the Songhai centers in Benin—and now also outside Benin—have succeeded in introducing innovative

technologies that blend traditional and modern practices in agricultural production and merchandizing that have won international acclaim and recognition. A Songhai establishment focuses on training, production, research, and development of sustainable agricultural practices. The main objective is to train young agricultural entrepreneurs. Since 1985, Songhai centers have been empowering young men and women with technical and entrepreneurial skills for gainful employment in the agricultural production and food processing sectors (Hountondji, 2011). The major fields of training include animal production, crop production, fish production, food processing, appropriate technology, renewable energy, and marketing services.

Learners in Songhai centers are aged 18-35 years. The curriculum is organized in two phases, a first phase of 6-18 months, depending on the area of specialization, followed by 12 months of practice and a mini project. Training does not stop with the acquisition of the requisite skills for agricultural production. The graduates are also supported through loans and credit offered by Songhai to set up their own farms. In addition, there is a network of Songhai farmers for information sharing and mutual support. However, the scaling up of the Songhai approach remains a challenge.

The case study on the Democratic Republic of Congo (Yamba Yamba, 2011) and the contributions from the International Network for Agricultural and Rural Training (FAR) (Besson et al., 2011) provide an insight into the new initiatives and challenges faced by this important sector. In Morocco, after the adoption of the *Plan Vert*, a new plan to renovate the sector, new training strategies have been formulated, involving the participation of agricultural professional bodies such as the national association of cattle breeders and the development of new training methodologies such as the use of ICT for distance learning. The Democratic Republic of Congo (Yamba Yamba, 2011) has introduced the competency-based training approach in the design and implementation of training programs in the agricultural sector. However, documentation related to the first batch of trainees reveals problems in the implementation of CBT. These include unavailability of land for practice in some cases because of the location of some of the training institutions, and the school calendar which is not aligned with the agricultural (rainy) season.

The need to include the agricultural sector in countries' TVSD reforms has already been stated. In this regard, in addition to tracing the historical development of training

in the agricultural sector, the FAR Network goes one step further by advocating on the need to cater for the specific characteristics of the target population—young people and adults and mainly rural dwellers—whose learning and training requirements are different from those in other sectors of the economy. Furthermore, the knowledge and skills required for the sector are complex and training methods must take this complexity into consideration. It is also important to set up different management structures for initial and continuing training with increased participation from professional bodies, as in the case in Tunisia (Halleb, 2011).

Finally, since employment opportunities in the formal economy have not kept pace with the growing labor force, it has been argued that entrepreneurship education, coupled with a favorable economic environment for enterprise creation, offers the best prospect for job creation and self-employment. There is also evidence that successful transition from training to work requires the development of broad skills, with an emphasis on problem-solving and “learning to learn”, alongside more specialized or technical skills (UNESCO, 2010)

2.5.5 Easing the transition into the world of work

To ease the transition into the world of work, some countries have instituted a range of measures targeting new graduates, job-seekers, and candidates willing to become self-employed. These measures range from providing access to information on job availability to business start-up credit facilities. Yao Gnabeli et al. (2011) in a transnational study conducted in West Africa have provided an inventory of these support mechanisms in Benin, Côte d'Ivoire, Mali, Mauritania, Niger, and Senegal. Their findings reveal that in most countries, job placement agencies tend to provide only one or two services in a “sectoral” or “piecemeal” approach. Côte d'Ivoire and Senegal, however, are experimenting with an “integrated” approach involving advice on jobs and training opportunities, procedures for starting or doing business, and micro-finance interventions. The concept, known as *La Plate-Forme de Services* in Côte d'Ivoire, can be compared to a one-stop facility providing several complementary services.

The main mandate of Côte d'Ivoire's *Plate-Forme de Services* is to facilitate the access of young people to gainful employment through a process that integrates training into the development and business environment of the local community (Yao Gnabeli et al. 2011). Recognizing that

the challenge of transiting from training to employment is multi-dimensional, the *Plate-Forme de Services* program is based on aligning training opportunities to community development plans and job openings within the socioeconomic fabric of the community. As reported by Yao Gnabeli et al. (2011), between 2005 and 2008, out of the 11,000 young people who registered for the program, 6,000 were supported and trained in different occupational and trade areas, with more than 2,000 trainees being successfully integrated into the economic development and business environment of their community.

The *Plate-Forme de Services* is not a government agency although it benefits from government support. It is essentially a private organization that operates within the local community on the basis of a strong financial and technical partnership with the community. In fact, the two main features of the initiative are multi-stakeholder partnerships and local specificities. Although implementation is still in its infancy, the facility holds a lot of promise as it involves strong coordination and collaboration among the different economic sector agencies and players.

2.6 INTEGRATED AND FLEXIBLE ASSESSMENT AND CERTIFICATION MECHANISMS

Holistic and inclusive TVSD requires an assessment and certification system that can validate and certify competencies and qualifications acquired from different learning environments, whether formal, non-formal or informal. National qualifications frameworks, or NQFs, have been shown to be an effective tool for harmonizing learning achievements, validating experiential learning, and generally promoting lifelong learning. Lifelong learning has a beneficial effect on skills development since the skills of the workforce can be continually upgraded through this approach. This also means that learners who have had limited access to training in the past can have a second chance to build on their skills and competencies. At the sub-regional level, a coherent system of mutual recognition of competencies can promote the portability of skills qualifications across national frontiers and contribute to regional integration in Africa.

It is therefore not surprising that the development of a qualifications framework is high on the education and training reform agenda of many African countries. While some countries are already at an advanced stage of implementation, others are just beginning the process (Keevy and Samuels, 2008). In this regard, Mauritius

and South Africa are the pacesetters while The Gambia, Ghana, Mozambique, Nigeria, Senegal, and Tanzania—to name a few—are at various stages of implementation. Globally, more than 130 countries are currently exploring or developing NQFs (ILO, 2011).

2.6.1 Development of national qualification frameworks

A qualifications framework, especially as it relates to TVSD, is regarded principally as a tool to improve the quality of training; enhance accessibility; promote the validation of skills acquired from diverse learning environments, as well as up-skilling, re-skilling, and multi-skilling of workers; facilitate the recognition and comparability of national and regional qualifications; and generally encourage lifelong learning and sustainable labor-market driven skills development. On the other hand, globalization and the internationalization of labor markets are not unrelated to the interest and attention that some international agencies such as the ILO, OECD, GIZ, and the World Bank are devoting to reaching a global understanding of the benefits and challenges of NQFs. The OECD provides a comprehensive definition of a qualifications framework that includes the size, shape and scope of NQFs:

A qualifications framework is an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves, or made explicit in the form of a set of level descriptors. The scope of frameworks may take in all learning achievement and pathways or may be confined to a particular sector, for example initial education, adult education and training or an occupational area. Some frameworks have a tighter structure than others; some may have a legal basis whereas others represent a consensus of social partners. All qualifications frameworks, however, establish a basis for improving the quality, accessibility, linkages and public or labor market recognition of qualifications within a country or internationally (OECD, 2009)

In Africa, the development of NQFs has been influenced by the colonial history of the different countries. According to Keevy et al. (2011), due to the differences in language, education, and training system traditions, the development

of NQFs in Africa has been influenced by and polarized between the Anglo-Saxon and French traditions. Keevy et al. (2011) advise against a wholesale adoption or development of NQFs based on colonial systems. Instead, they recommend a strategy based on *policy learning* rather than *policy borrowing* as a more sustainable option in the development of NQFs. Heitman/GIZ (2011) emphasizes that no two NQFs are equal and that each country faces its own particular challenges and operates from its own historic, socioeconomic, and political context. The policy learning approach to the development and implementation of NQFs has been explicated by Chakroun (2010). Chakroun emphasizes the role of three key contributors to NQF development: the involvement of a wide range of social partners and other stakeholders; learning from best practices from around the world without compromising the coherence and integrity of national systems and ownership of the process; and the leverage of technical assistance to support national expertise.

Practically, three approaches to the development of a qualifications framework have been identified from the literature. The first is to start with a sectoral framework such as a TVET qualification framework or a higher education qualification framework which then fits into a broader NQF. The second approach is to start with a broad-based NQF followed by sector-specific frameworks, while the third option is to develop a fully integrated NQF from scratch. Given the complexity of developing NQFs, many countries in Africa seem to prefer the sectoral approach, beginning with the development of a TVET sector framework. This is the case of countries such as The Gambia, Ghana, Nigeria, and Senegal. However the question remains as to whether sector-specific options will not further widen the divide between academic and vocational education.

On the other hand, some critics of earlier versions of a comprehensive NQF in South Africa have argued that “the fundamental epistemologies between education and training seem to be too great to be reconciled within a single nqf” (Heyns and Needham, 2002). In spite of the promise and opportunities that NQFs hold for lifelong skills development and harmonization of learning achievements from diverse training environments, it is worth remembering that the construction of a qualifications framework is a long and arduous process (Heitman/GIZ 2011). Studies are also ongoing to evaluate the real value and impact of NQFs in some countries (Allais, 2010).

Regarding the development of regional qualifications frameworks (RQFs) on the continent, the SADC RQF is at the most advanced stage of implementation, although not without its challenges. The key challenge is the diversity of the education and training systems of the SADC member countries and the varying levels of economic and industrial development (Keevy et al. 2011; Heitman/GIZ, 2011).

Amidst all the progress and challenges associated with the introduction of NQFs in Africa, one fundamental question remains: are NQFs capable of promoting and recognizing informal and non-formal skills inherent in and within the context of African traditional and indigenous learning and knowledge systems? This dilemma of the African situation is accentuated by the need for African NQF systems to be relevant to the African reality and at the same time compatible with those of the rest of the world if Africans must integrate and benefit from the global learning environment (Higgs and Keevy, 2009; Heitman, 2011).

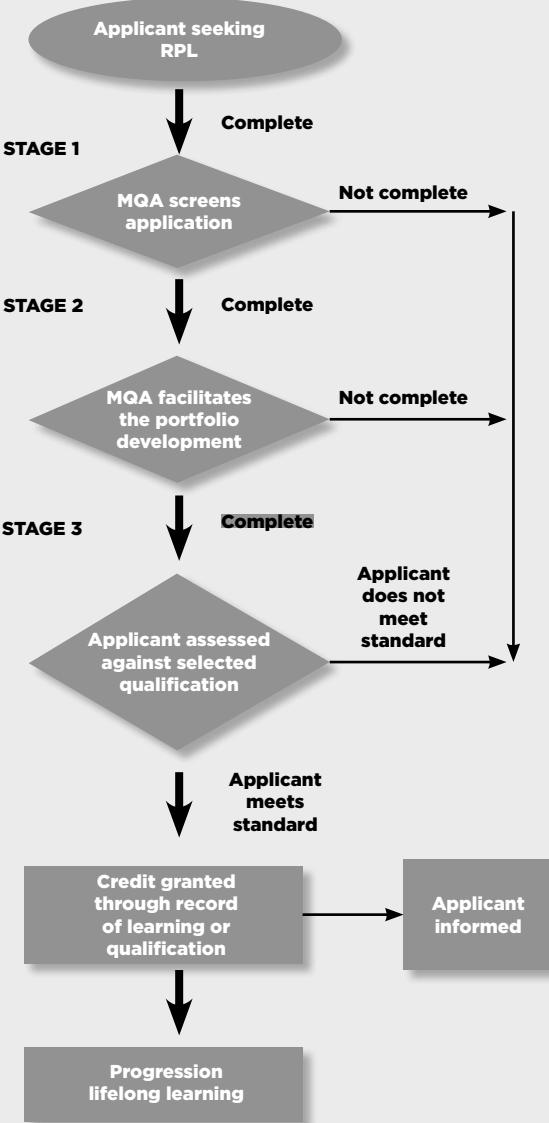
2.6.2 Recognition of prior learning (RPL)

Recognition of prior learning (RPL) is increasingly becoming a key component of the skills development policy discourse in many countries. RPL is seen as a tool for re-training and upgrading the skills of the workforce as well as for re-orienting workers back into the world of education and training in a sustainable and lifelong learning context. RPL seeks to recognize learning that is acquired outside mainstream education and training systems, either on the job or non-formally from other learning situations, in order to facilitate entry into or progression within national education and training systems and the labor market. Although RPL is variously referred to as accreditation of prior learning (APL) in the United States, as prior learning assessment (PLA) in Canada, and as accreditation of prior and experiential learning (APEL) in the United Kingdom, the common characteristics inherent in these terminologies is the recognition of previous experience, skills, and knowledge as well as informal and non-formal learning.

In this regard, the experience of Mauritius in developing and implementing an RPL system is worth sharing (Allgoo et al. 2011). The Mauritius Qualifications Authority (MQA), which is the agency responsible for qualifications in the TVET sector, has developed detailed guidelines and processes for implementing RPL. The Mauritius

RPL process is illustrated in Figure 2. In the Mauritian model, skills and experience acquired by the applicant in a non-formal context are matched against a set of learning outcomes or descriptors pertaining to a particular level in the qualification framework. RPL, being a form of assessment and validation of learning, can therefore be seen as an integral part of NQF implementation.

Figure 2: The Mauritian RPL Process



Source: Allgoo et al. (2011)

2.7 SUSTAINABLE AND INNOVATIVE FINANCING MECHANISMS

TVSD is costly. As has already been stated, budget allocations to skills training do not match political discourse on the importance of skills development in socioeconomic growth. In Sub-Saharan Africa, technical and vocational education is on average four times more expensive than general secondary education (Atchoarena and Delluc, 2001), and in some cases up to fourteen times more expensive (Johanson and Adams, 2004).

Obviously, state funding alone is inadequate. Furthermore, the issue of finding sustainable mechanisms for financing skills development in Africa has become even more acute as many countries have embarked on reforms targeting not only the formal system but also the informal and non-formal systems. It has been noted that the creation of national training funds in many countries, often based on payroll levies, has provided additional funds to the sector. However, the question remains as to the effectiveness of this practice and whether enough funds can be generated through payroll levies since many countries have a narrow tax base.

2.7.1 Innovative financing mechanisms

Regarding innovative financing mechanisms, a promising example is the case of Tunisia, which involves partnerships with professional bodies and the private sector in the management of training institutions (Halleb, 2011). In the Tunisian example, the training centre is responsible for generating additional funds through income generating activities such as providing services and selling its products to the local community. In this kind of joint management, even the salaries of the personnel are borne by the training center.

The GIZ transnational case study (GIZ/Adam, 2011) describes the situation of costs and financing in the informal sector and outlines some alternative sources to public and external donor funding. A number of measures have been introduced by training providers to cover some of the costs: low training (tuition) fees or annual subscriptions; advisory services to the community; and selling the products of the training center. Some NGOs have tried to reduce costs by hiring local facilitators who are often former participants of earlier programs instead of expatriate facilitators as well as using local materials as inputs for practical training. However, it has been observed that trainees may be willing to pay higher participation fees once it has been demonstrated that the training program can lead to greater employability and individual livelihoods.

2.7.2 Cost evaluation of training programs

In drawing the budget for a training program or evaluating the viability of new training initiatives, it is important to be able to estimate the costs involved (Walther and Filipiak 2007; UNESCO/BREDA/Pôle de Dakar, 2011). Such an exercise is not easy, either for policy-makers or training authorities. There are however some promising initiatives in this regard. In particular, UNESCO's Regional Bureau for Education in Africa (UNESCO BREDA) and Pôle de Dakar, in partnership with the Republic of Senegal, have developed a simulation model for costing technical and vocational skills development, and more precisely the costs associated with renovated apprenticeship programs. The new model consists of three parts: 1) an enrollments matrix, consisting of actual enrollment figures and estimates from potential pathways in the formal, non-formal and informal TVSD systems; 2) an estimation of unit costs; and 3) an estimate of the total cost of training. Using this model, it is possible to determine personnel salaries and estimate non-recurrent expenses.

The Senegal case study on cost simulation documents not only how costing can be done using a step-by-step approach but also the formulas to use. However, the process suffers from difficulties associated with accessing reliable data from training institutions, local authorities, and government agencies as there are many ministries and departments involved in training provision in the country.

2.8 DYNAMIC REGIONAL COOPERATION

Over the past five years or so, the revitalization of TVET within the context of regional cooperation and dynamics has engaged the attention of the AU, the regional economic communities (RECs), and several UN agencies including UNESCO and UNDP. These regional initiatives are driven by a common understanding and acknowledgement of technical and vocational skills acquisition as a key requirement for tackling the problem of youth unemployment on the continent. ECOWAS, UEMOA, the SADC, and ADEA have been particularly active in driving the TVSD agenda.

In August 2009, UNESCO BREDA in collaboration with ECOWAS organized a regional workshop on revitalizing TVET in ECOWAS member countries. The workshop, which was held in Abuja, Nigeria, brought together the major stakeholders in TVET from all fifteen ECOWAS member countries. These included TVET researchers, experts, policy planners and practitioners, education ministry officials, training providers, top-level government representatives, the private sector and civil society, and

representatives from a number of international agencies and technical and financial partners. Recognizing the need to move from problem identification and policy formulation to active implementation of best practices, the Abuja workshop recommended the creation of an inter agency task team (IATT) to coordinate the activities of the technical and financial partners that are involved in supporting national TVET policy development and the delivery of technical and vocational skills acquisition activities. The initial composition of the IATT included the AU, UNDP, UNESCO, ECOWAS, AfDB, ILO, and the UNESCO International Centre for Technical and Vocational Education and Training (UNEVOC).

One of the most significant developments in TVET delivery in West Africa in recent years is the partnership between UNESCO and Nigeria in the area of curriculum development under the UNESCO-Nigeria TVE (technical and vocational education) Project (Kazaure and Muhammad, 2011). The project involved the revision, updating and localization of more than 80 curricula; the development of learning, teaching, and training materials (LTTM); and teacher training and staff development. In this regard, the IATT, under the auspices of UNESCO BREDA, has been collaborating with the ECOWAS Secretariat to facilitate the sharing of the curricula and learning and teaching materials developed by Nigeria under the UNESCO-Nigeria TVE project with other ECOWAS member countries. The ECOWAS Commission has also devoted resources to TVET teacher training. In 2010, under the auspices of ECOWAS, 240 TVET personnel in seven ECOWAS countries were trained on the use of ICT to develop and revise curricula and learning materials.

Moreover, the largely Francophone UEMOA organization—that also includes the non-Francophone countries of Cape Verde and Guinea Bissau—has constituted a platform for knowledge and experience sharing particularly in the area of financing of TVSD activities, modernization of traditional apprenticeships, and effective strategies for the placement of graduates of the TVSD system in gainful employment. The experience of Côte d'Ivoire regarding the successful insertion of trainees into different occupational fields under its innovative *Plate-Forme de Services* program has been widely acknowledged in the UEMOA region.

Since 2008, SADC and UNESCO have been collaborating to leverage TVET in the SADC region, not only to support economic development and the reduction

of poverty but also as a vehicle for regional integration and the mobility of learners, trainers, and skilled workers across the SADC region (Maponga et al. 2011). The specific objectives of the SADC-UNESCO TVET program include the generation of baseline information of the status of TVET in all SADC member countries; the production of a cross-national analysis on the status of TVET; the construction of a monitoring tool for tracking and reporting on the progress of TVET over time; and the development of a regional strategy and action plan for revitalizing TVET in the 15 SADC member countries. This regional experience, though advanced in its ambitions, is yet to attain its principal goal of creating a harmonized TVET space in the SADC region.

One of the key factors hampering regional cooperation in TVET is the differences in language and education systems that are linked to the colonial histories of member countries of the regional economic communities. In the case of SADC, the diverse socioeconomic contexts and different national conceptualizations of TVET also influence the TVET architecture in the SADC member countries. For example, while Zambia uses the term technical, entrepreneurship and vocational education and training (TEVET), the terminology in use in Tanzania is vocational education and training (VET). This diversity in conceptualization has its strengths and weaknesses: the different experiences can enrich national TVET systems and at the same time hinder the rapid development of harmonized TVET systems within a single regional qualifications framework.

The idea of inter-country cooperation and collaboration through a dynamic knowledge and experience sharing platform is behind the creation of inter country quality nodes (ICQNs) that have been championed by ADEA since the 2008 Biennale on post-primary education and training in Africa. The concept of ICQNs is not limited to TVSD. In fact, ADEA has been promoting ICQNs that are relevant to the sustainable development of Africa in such areas as literacy and peace education. The purpose of the ICQN on technical and vocational skills development (ICQN-TVSD) is to promote a holistic vision of TVSD within a regional framework of cooperation and harmonization in policy formulation, training delivery, and policy learning with regard to systems and mechanisms for successfully linking TVSD to sustainable socioeconomic development.

The ICQN on TVSD, which draws on earlier synergies established within UEMOA and ECOWAS, brings

together more than 20 African countries. The two ICQN-TVSD conferences held in 2010 and 2011 in Abidjan, Côte d'Ivoire, have identified priorities and possible axes for inter country collaboration in the critical areas of TVSD system governance, effective training delivery, post-training job placement, innovative partnerships, and sustainable financing mechanisms. In most of the ICQN-TVSD countries, informal learning and traditional apprenticeships play a dominant role in skills training. With 80-90% of all employment in these countries in the informal economy, the re-structuring and modernization of traditional apprenticeship is considered a priority. Best practices being promoted include competency based training and a dual system of apprenticeship training where learners alternate between basic theory lessons in a classroom setting and intensive practice in production workshops under the mentorship of trained master crafts persons. The ICQN platform also recommends that special attention be paid to the skills needs of girls and women, persons with disabilities, rural dwellers, and agricultural and informal sector workers (Box 8). ■

**Box 8: Declaration of ministers responsible
for TVSD in ICQN-TVSD member countries**

At the end of the meeting held in Abidjan from 19-21 September 2011, the ministers responsible for TVSD in the ICQN-TVSD member countries, having taken note of the studies conducted by the technical experts of member states and the deliberations of the technical sessions, adopt for further consideration and implementation:

- The establishment of effective systems to facilitate the transition of the youth into the world of work;
- The establishment and development of pathways for dual systems of training and apprenticeship, both traditional and modern, to facilitate the acquisition of labor market relevant skills;
- The development of training and apprenticeship systems for the rural and agricultural sectors to upgrade the production skills of farmers and farm workers;
- The continuous training for all those involved in the provision of vocational training, including master crafts persons;
- The design and implementation of training schemes to respond to skills needs in new and emerging areas of economic activity;
- The provision of high-level skills training that responds to the needs of high value-addition production systems and economic competitiveness of enterprises, including small and medium enterprises;
- The greater involvement of stakeholders and other economic partners in the formulation, elaboration, implementation, management, and assessment of skills development courses and systems;
- The promotion of public-private partnership-based management structures of training centers, either delegated or joint;
- The establishment of flexible frameworks that allow for the recognition and certification of prior learning, whether originating in formal or informal settings;
- The provision of skills development pathways and systems that offer opportunities for lifelong learning and training for the whole population.

Source: Adapted from the report of the ADEA ICQN-TVSD conference held in Abidjan, 19-21 September 2011

KEY CHALLENGES, OUTSTANDING ISSUES AND POLICY CHOICES

3.1 PROMOTING EMPLOYABILITY, EMPLOYMENT AND ECONOMIC GROWTH

3.1.1 TVSD policy reforms must be rooted in national economic and human resource development strategies

Many TVSD national policies include elaborate descriptions of the policy intentions, goals, and outcomes. However, in many instances, these goals exist only on paper, without any realistic goal-setting and pragmatic action plans and achievable targets. Policy reforms must assign specific national development functions to TVSD. Is the policy focus on providing skills for supporting export-led growth or private sector growth? Or is it essentially targeting youth and women's economic empowerment for poverty reduction? Is the thrust of the policy perhaps on diversifying the national stock of skills and the development of high-level skills for participation in the global economy? Again, is the emphasis on skills to support rural development? Of course, a national TVSD policy can address all of these concerns and more. However, it is important to link TVSD policies to clear and realistic economic and national human resource development goals while implementation frameworks should include performance indicators and milestones, timeframes, cost estimates, and funding sources as well as mechanisms for coordination, monitoring, and evaluation.

National TVSD policies and strategies must be based not only on relevant international best practice but also firmly rooted in indigenous knowledge and learning systems that reflect local cultural practices and values, technological preferences, the challenges of globalization, and national development priorities.

3.1.2 The availability of skills is not a sufficient condition for economic growth

The primary objective of TVET is the acquisition of productive skills for employment. TVET prepares young people and adults for the world of work, raises employability, reduces unemployment and the incidence

of poverty, and supports economic growth. However, the relationship between skills and economic growth is not linear. It has been argued that there may be other factors that contribute to increased productivity and economic growth far more than investment in skills (Otero and McCoshan, 2005). The availability of skills, even of the highest quality, does not constitute a sufficient condition for increased productivity. New technologies and more efficient production systems and machinery, as well as the rule of law and good governance, are equally important and may indeed play a more dominant role in boosting productivity, enterprise development, and economic growth. However, the availability of a skilled and competent workforce is a necessary condition for driving the engine of growth for wealth creation. Investment in skills, as a strategy for stimulating economic growth, should therefore be accompanied by the modernization and improvement of production systems. Equally important is the continuous upgrading of employee skills.

3.1.3 The mere acquisition of skills by the youth does not lead to youth employment

Just as investment in skills may not be enough to increase productivity, the mere acquisition of skills does not automatically lead to employment. Often, national TVSD policies and strategies fail to recognize that skills acquisition in itself does not create jobs or guarantee employment unless the training is matched to demand that is driven by the employment market, the national economy, and community needs. Providing vocational training merely as a means of keeping unemployed youth off the streets without linking training to the growth-and employment-generating sectors of the economy is a poor workforce development strategy that increases the frustration of job seekers who may have skills that are not in demand. It also undermines the credibility of vocational skills acquisition as an effective response to youth unemployment and poverty reduction. National TVSD policies should therefore be based on a sound analysis of the employment market (the skilled labor employers

want) and the education and training market (the type of training being delivered) while paying attention to the phenomenon of occupational elasticity or the rapidly changing typology of occupations.

3.1.4 Economic, trade and industrialization policies impact on employment prospects

Government economic policies that support the manufacturing and productive sectors, including agriculture, or stimulate the creation and growth of enterprises can raise the demand for employable skills. As the productive sectors of the economy grow, new or additional job and skills training opportunities emerge and more people get employed. The market effects of globalization on the supply, demand, and prices of imported goods also impact on sustainable employment. In effect, the influx of cheaper imported products on the domestic market can impact negatively on the livelihoods and incomes of skilled workers engaged in the local production of similar goods which are priced out by the cheaper imports. On the other hand, weak economies can take advantage of globalization to support their skills development efforts by ensuring that the national workforce benefits from foreign investment activities in the local manufacturing and infrastructure development sectors through the process of technology transfer. In this regard, the network of Private Investors for Africa (PIA) and similar organizations can become strategic partners for employment creation on the continent.

Box 9: Conditions for the creation of a vibrant economic environment

For the private sector to play its full role as an engine of growth in Africa and poverty reduction, African countries will need to create an enabling environment for a vibrant private sector in which micro, small, and medium-sized enterprises (MSMEs) and labor-intensive activities thrive alongside large firms in both traditional and new areas. This will require improving the legal and regulatory environment for doing business, increasing access to finance, improving corporate governance, strengthening human capital and skills development, and fostering entrepreneurship. Further impetus to private sector-led growth could be expected from substantial improvements in both 'hard' and 'soft' infrastructure, and the expansion of markets through regional integration.

Source: AfDB, 2011a

3.1.5 Learning essential business skills awakens the entrepreneurial spirit in learners

Training relevance should not be seen only from the perspective of acquisition of technical skills. The modern workplace environment demands that workers also demonstrate "soft skills" such as communication and team skills, problem-solving and critical thinking skills, as well as business development and entrepreneurial skills. Such work-based skills can enhance the employment and business creation prospects of TVSD graduates in both the formal and informal sectors. However, in order to facilitate the creation of enterprises and businesses by young people, governments need to do a lot more with regard to easing administrative procedures for starting businesses, providing an enabling environment for SMEs to thrive, and encouraging micro-finance interventions.

3.2 MODERNIZING THE INFORMAL TVSD SECTOR

The case for modernizing and re-structuring the delivery of TVSD in the informal sector is justified by the dominant role that traditional apprenticeship and other forms of informal sector skills training plays in the provision of skills for the informal economy in most countries in Africa. The skills needs of out-of-school youth, early school leavers, and adults are best addressed by informal sector training providers. Formal sector training providers are often too rigid in their operations and training curricula, and are ill-equipped to respond to the particular training needs of these categories of learners in terms of flexibility in training delivery, teaching methodology, admission requirements, and language of instruction.

Revitalizing the informal sector provision of skills will involve concrete efforts at the national level to regularly update the skills of master crafts persons and improve upon their pedagogical skills; introduce reforms into master-trainee performance contracts and agreements; and facilitate the injection of new technologies into the traditional apprenticeship system.

The informal sector should be supported to complement the formal sector in producing a national workforce and TVSD delivery system that is not only responsive to the local employment market but also globally competitive. It is therefore important for TVET policy planners, curriculum developers, and training providers to have a good understanding of the changing demands of the labor market, the growth areas of the economy, the job skills that

are or will be in demand, and the profile of the national workforce. In addition, information on enrollments and trainee numbers, training levels and disciplines, teacher/instructor qualifications and deployment, teaching and learning facilities, training equipment, and training methodologies is necessary for effective policy engineering, planning, and implementation. However, if this type of information is available or relatively easy to generate for the formal TVET sector, more sophisticated data gathering techniques and technical expertise will be required for the informal sector. Research into the evolving nature and operations of the informal sector is necessary to support the revitalization of the sector.

3.3 STRENGTHENING THE PROVISION OF SKILLS FOR THE AGRICULTURAL SECTOR

According to the McKinsey Global Institute (2011), Africa could experience a “green revolution” with the introduction of new technologies and skills into the agricultural sector. With 60% of the world’s uncultivated arable land in Africa, agricultural development has great potential for growth on the continent. TVSD policies and strategies should therefore include a strong component on the provision of skills required for areas such as irrigation, farm mechanization, land preparation, food processing, livestock production, marketing, and bio-fuels. In this regard, there is need for review of rigid land tenure systems that hamper easy access to land.

3.4 MATCHING LIFELONG LEARNING WITH SUSTAINABLE DEVELOPMENT PRACTICES

Lifelong learning in the context of sustainable development can be seen from the perspective of up-skilling, re-skilling, and multi-skilling of workers. In this regard, the development of flexible learning pathways and national qualifications frameworks is a priority. Lifelong learning can impact positively on sustainable development practices as the population becomes more knowledgeable and is more abreast of less harmful production systems and practices.

3.5 HIGH-LEVEL TVSD

Many NGO-funded training programs target skills development for the informal sector as a poverty reduction strategy in occupational areas such as dressmaking, hairdressing, masonry, carpentry, and automobile repair. While such interventions do contribute to the acquisition of employable skills by out-of-school youth and the less

educated population, the type and level of skills taught are not capable of producing a globally competitive workforce imbued with the higher level skills necessary for technology adaptation and innovation, transformation of national production systems, and industrialization of the economy. TVSD policies and strategies should therefore address the development of both basic and higher level skills.

3.6 TVSD RESEARCH

There is a paucity of academic research into TVET in Africa. Most of the information available on TVET is related to formal TVET. Although several commissioned reports exist on some aspects of informal TVET, there is need for research on the impact of TVSD on livelihoods, labor productivity, competitiveness, and economic growth to guide policy formulation and implementation. Issues such as raising the attractiveness of TVET and a better understanding of the TVET space are worthy of academic research. In effect, the TVET space in the national education and training system of most countries stretches across all levels of the education system (basic, secondary, and postsecondary) and out into the occupational training sector. Aligning TVET with the wider education sector will therefore require in-depth research and analysis of the factors involved in building a competent national human resource base.

3.7 FINANCING OF TVSD

Most African countries allocate more resources to their primary education and higher education sectors than technical and vocational education and training. Allocating more resources to primary education is justified by the fact that quality basic education is critical to the acquisition of skills at the higher levels. However, this means reduced funding for the TVET sector. In the absence of increased funding, training institutions will have to adopt better financial management practices that are based on partnerships with the private sector, households, and the community as well as greater cost-effectiveness and higher internal and external operational efficiencies. ■

CONCLUSION: OUTCOMES OF THE TRIENNALE FOR TVSD

As noted, Africa faces a huge deficit of socioeconomic infrastructure in terms of adequate roads, housing, power supply, water and sanitation systems, telecommunications, and transportation, among others. A skilled workforce is required to build and maintain this type of infrastructure as well as operate, service, and repair national production and manufacturing systems. The people exist but the skills are lacking. According to the McKinsey Global Institute (MGI, 2011), Africa's working age population (15-64 years), that currently stands at about 500 million people, is projected to exceed 1.1 billion by 2040. The challenge is how to provide this large potential workforce with the education and skills necessary for sustainable socioeconomic growth. Meeting this challenge will require the effective implementation of national policies and strategies that emphasize the development of lifelong technical and vocational skills which are firmly rooted in national knowledge and value systems. Equally important are public-private partnerships involving the participation of industry, enterprises, NGOs, CSOs, households, and the community.

The case studies and other contributions on which this paper is based confirm that:

- There is need to revitalize the informal TVSD sector in Africa.
- Policy reforms must be rooted in national economic and human resource development strategies and should also target the development of higher level skills.
- The provision of skills for the agricultural sector should be strengthened.
- The mere acquisition of skills by the youth does not lead to youth employment, neither is the availability of skills a sufficient condition for economic growth.
- Economic, trade, and industrialization policies have an impact on employment prospects.

In line with this, several key messages were formulated at the 2012 ADEA Triennale in Ouagadougou to guide follow-up activities on TVSD at the country level and within the ADEA network. It was recognized that TVSD is a key response to the problem of youth and adult unemployment. However, to be effective, skills training should be accompanied by post-

training technical and financial support measures that facilitate integration into the world of work. Moreover, national qualification frameworks and recognition of prior learning can help to bridge the divide between formal and non-formal/informal TVSD by providing mechanisms and opportunities for the recognition and validation of experiential learning as well as rewarding and motivating all workers in the context of lifelong learning.

Investment in TVSD yields high economic returns in terms of a better qualified and entrepreneurial workforce that is capable of making a greater contribution to labor productivity and economic growth. A skilled TVSD graduate has a higher chance of finding employment than an unskilled individual. In this sense, TVSD is not as expensive—in relative terms—as is often claimed. Furthermore, higher level TVSD is necessary for the development of skills required for operating modern production systems, technological innovation, value addition to primary commodities, and transformation of national economies. Countries should therefore promote the development of both basic and higher level skills.

TVSD must also target the provision of skills and the application of low-cost technology in the agricultural and rural development sectors. Local languages and media should be used to disseminate information and knowledge to farmers to help in combating the effects of climate variability, deforestation, soil degradation, water scarcity, etc.

Multi-stakeholder partnerships are necessary for a cost-effective and job market relevant design and delivery of TVSD. There is therefore need for government-private sector-training provider partnership agreements and protocols.

Finally, systematic TVSD research is necessary to underpin country-level TVSD policies, programs, and action plans. In particular, evidence-based research findings on the real impact of TVSD on economic growth, employability and individual incomes can help eliminate the stigma associated with TVSD and raise its attractiveness and prestige. ■

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