

Concept Note on the Sub-Theme 2

Lifelong Technical and Vocational Skills Development for Sustainable Socio-economic Growth in Africa

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1. Introduction

At the last ADEA Biennale held in 2008 in Maputo on Post-Primary Education in Africa, technical and vocational education and training (TVET) was identified as an important vehicle for the acquisition of employable skills and the development of a competent and globally competitive workforce for economic growth and sustainable livelihoods in Africa. In many African countries, the issue of skills development features prominently in the education and training policy dialogue. However, skills shortages and gaps are evident in many areas of economic activity on the continent, raising the important question of how to bridge the gap between policy formulation and effective implementation of skills development strategies and action plans.

The challenge of developing a skilled human resource for Africa's development is one of the underlying reasons for placing the upcoming ADEA Triennale to be held in Ouagadougou, Burkina Faso in February 2012, under the overall theme of "**Promoting critical knowledge, skills and qualifications for sustainable development in Africa: how to design and implement an effective response by education and training systems?**" Based on this general theme, three sub-themes have been identified for in-depth study and critical analysis with a view to identifying concrete case studies, workable strategies, and successful innovations and best practices that can be replicated or adapted for implementation in similar situations. These sub-themes which are linked within the general framework of skills development and lifelong learning are:

- Sub-theme 1: Common core skills for lifelong learning and sustainable development in Africa
- Sub-theme 2: Lifelong technical and vocational skills development for sustainable socio-economic growth in Africa
- Sub-theme 3: Lifelong Acquisition of Scientific and Technological Knowledge and Skills for Africa's Sustainable Development in a globalized world

The objective of this concept paper is to bring clarity and substance to sub-theme 2 and to provide guidance and direction to contributors of papers and case studies on the sub-theme. It is hoped, in this way, that the outcomes of the 2012 Triennale can go beyond the repeated formulation of ideas and the rhetoric that has been heard over the years to providing countries with pragmatic strategies and guidelines for policy implementation, even at the policy dialogue level. The challenge now is no longer what to do but *how* to do what needs to be done.

2. Background and Context

TVET in Africa is delivered at different levels in different types of learning environments, including technical and vocational schools, polytechnics, enterprises, and apprenticeship training centres. With a few exceptions, the socio-economic environment in which TVET systems currently operate is generally characterized by:

- Weak national economies, high population growth, and a growing (mostly unskilled) labour force;
- Shrinking or stagnant wage employment opportunities especially in the formal industrial sector against 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 labour market needs;
- Unequal training opportunities fostered by inequities based on regional or geographical location, gender and socio-economic 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.

It is the current poor state of TVET in Africa which inspired one of the key messages that have emerged from the ADEA 2008 Biennale on the crucial role that TVET can play in the acquisition of employable skills by the youth and in the sustainable economic development of the continent (ADEA, 2008). In effect, a skilled workforce is an important driver of economic growth, wealth creation and poverty eradication. TVET offers opportunities for the acquisition of employable and entrepreneurial skills that facilitate insertion into the world of work, leading to gainful employment, sustainable livelihoods, and meaningful participation in the political and democratic space of nations.

A country's most important resource is not its raw materials or natural resources but the skills of its people. 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). Rich and poor countries alike increasingly recognize that they will pay a high price if they fail to strengthen their national stock of skills (DfID, 2007, 2008).

The 2008 African Economic Outlook (AEO) published by the African Development Bank (AfDB) and the OECD identifies TVET as a key response to the challenge of training a skilled and globally competitive workforce. In its Plan of Action for the Second Decade of Education (2006 – 2015), the African Union (AU) admits that TVET has been under-served in the past and has therefore rated it as one of the seven priority areas for investment on the continent. Subsequently, the AU adopted a policy framework for promoting TVET in Africa (AU, 2007). The World Bank has also argued for increased investment in skills development in Africa (World Bank, 2008).

Although the important role of TVET in socio-economic development is now universally acknowledged, there appears to be some inertia in moving from policy formulation to policy implementation in several African countries. How can the gap between needs identification and strategy implementation be bridged? What are the pre-conditions that will drive a positive change in the current situation of TVET in Africa? What are the necessary and sufficient conditions that will enable TVET to become a strong driver for developing the capital (human, social values, infrastructures) needed for sustainable economic growth in Africa?

3. Clarification of Key Concepts

3.1 Need for paradigm shift in TVET delivery

The 2008 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 (TVSD) that is more flexible and responsive to labour market demands than the traditional supply-driven system. The term *skills development* refers to: “The acquisition of practical competencies, know-how and attitudes necessary to perform a trade or occupation in the labour market. Skills can be acquired either through formal public or private schools, institutions or centres, informal traditional apprenticeships, or non-formal semi-structured training¹. The terminology includes all forms of training and is not bound to just formal training in a formal classroom setting. Advocates for an all encompassing view to training are urging for a change to a wider use of the terminology *skills development* in policy documents to cater for the need for a holistic and inclusive approach, including a stronger focus on issues related to both transition from school to work and human resource development in a life-long learning context. TVSD is therefore non-discriminatory with regard to age, status or stage in life, type of learning or training environment, or level of training. TVSD acknowledges the diversity of provision and pathways and implies the recognition, validation and certification of skills acquired from different learning environments, including apprenticeships. It is these considerations that have influenced the formulation of the sub-theme as “*Lifelong technical and vocational skills development for sustainable socio-economic growth in Africa*”.

The notion of skills is complex and its definition has to be approached from different contexts and perspectives. The different dimensions of the concept of skills are many, e.g. general, critical, core, key, soft skills, etc. A practical approach to understanding the relationship between the different dimensions and connotations of “*skills*” would therefore be to develop a parametric definition that takes into account the dimension of *time* (short-term, medium-term, or long-term skills), the dimension of *content* (basic, general, specific, or critical skills) and the dimension of *context* (skills that are sector-specific and linked to particular social, industrial or economic activity or environment). However, for the purpose of explaining the sub-theme, the concept of skills is defined to encompass general, fundamental or basic skills and competencies such as literacy and numeracy, reading, writing and understanding as well as critical skills such as critical thinking, problem-solving, entrepreneurial and analytical skills that are necessary for functioning effectively in the world of work and can be built upon for promoting innovation or

¹ A definition attributed to DFID by Palmer, R in: **What room for skills development in post-primary education? A look at selected countries.** A background paper produced for the Paris meeting of the Working Group for International Cooperation in Skills Development, 13-15 November 2007.

adapted to new learning environments or different sectors of economic activity. The notion of skills may also be understood and classified in terms of core competencies (including knowledge) that are necessary for immediate employability, potential or future adaptability, and for lifelong learning.

In the context of the sub-theme, the term *socio-economic growth* is understood to include the sustainability dimension of economic development with emphasis on appreciation of social and cultural values, indigenous knowledge systems, and respect for the natural environment. The concept of sustainable development is intrinsically linked to the total development of the individual.

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. 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.

As is well known, formal school-based technical and vocational education and training focuses more on getting a qualification for employment in the formal sector rather than on acquiring competencies for successfully integrating the world of work. In many countries, job creation in the formal sector has stagnated while informal sector employment has grown in importance, typically accounting for over 80% of total employment in many African countries. However, the non formal and informal skills training sectors are only marginally linked to the formal sector. Only a few countries, including Benin, Togo and Mali have initiated policies linking the traditional apprenticeship sector to the formal TVET system.

All together, the foregoing arguments underpin the use of the term technical and vocational skills development (TVSD) rather than TVET in the formulation of the sub-theme. The choice of terminology is also to reinforce the synergy running through the three sub-themes. In effect, the first sub-theme is about the acquisition of common core skills; the second is about technical and vocational skills; while the third deals with scientific and technological skills.

4. Main challenges and issues

The key issues that the sub-theme seeks to address may be grouped under six headings, namely: governance (including management, partnerships and financing); quality and quality assurance; relevance and employability (including entrepreneurship and the transition from training into the world of work); assessment and certification (including qualification frameworks and lifelong learning); skills development in the non formal and informal sectors; and access and attractiveness of technical and vocational education and training.

4.1 Governance

Governance is at the heart of successful skills development strategies. In order to ensure effective management and coherence of training provision, it is often necessary to establish a national coordinating agency to drive the entire skills development sector within a well-defined policy and regulatory framework. Partnerships involving civil society actors and NGOs, business enterprises and professional associations, international development partners and religious

bodies, public and private sector organizations and training providers, do contribute to innovative management and financing strategies.

There is ample evidence that strengthening governance can yield positive results. According to the AfDB/OECD, the revision of curricula in Morocco with emphasis on the acquisition of a combination of specific skills and broader capabilities have achieved good results with more than half of graduates finding a job within nine months of graduation (AfDB/OECD, 2008). Also, the proportion of female trainees has gone up to 44% in 2006, while the TVSD system is expanding with the introduction of training programmes that target the skills needed by new economic sectors such as vehicle manufacture, aeronautics and agro-industry.

TVSD is costly. In sub-Saharan Africa, technical and vocational education is on the average four times more expensive than general secondary education (Atchoarena and Delluc, 2001), and in some cases up to fourteen times (Johanson and Adams, 2004). Obviously, state funding alone is inadequate. Training levies based on payroll taxes have been instituted in many countries. However, the question remains as to their effectiveness and whether enough funds can be generated through payroll levies, since many countries have a narrow tax base.

4.2 Quality and quality assurance

Training quality is 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. The integration of ICT and technology-mediated teaching and learning into training provision can contribute to quality delivery. In recent years, the competency based training approach has been acknowledged as a quality-improvement methodology. Training for high-quality skills is also closely linked to the availability of strong, professional management and leadership capacity as well as a suitable quality monitoring and evaluation mechanism to drive the entire system.

The acquisition of effective 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. Students with sufficient academic education are better able to acquire higher-level vocational skills. In South Korea, academic and vocational students in secondary school share as much as 75% of a joint curriculum (Adams 2007). In the emerging knowledge-based economy of the 21st century, *what you know* is less important than *what you are able to learn*.

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.

4.3 Relevance and employability

Too much of formal vocational education delivers skills of limited relevance to economic and social needs, and at high cost, often marginalizing the poor and the informal sector. It is often driven by inappropriate curricula, which is detached from employers' real needs (UNESCO, 2010). It is not surprising therefore that the average duration of unemployment for first-time job seekers is measured in years rather than months. In Ethiopia, Malawi, Mozambique and Zambia, young people face about five years of inactivity before finding work (Garcia and Fares, 2008).

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 labour markets characterized by high unemployment, low productivity and poverty-level incomes (Garcia and Fares, 2008).

The acquisition of technical and vocational skills must lead to gainful wage or non-wage employment. For this to happen, it is important that training is geared towards the needs of the labour market. One way of doing this is to create a mechanism for predicting or following the dynamics of the labour market. Tracer studies which track the destination of graduates in the job market can also provide useful feedback for the revision of training curriculum so as to enhance the employability of trainees. Furthermore, since employment opportunities in the formal economy in most countries have not kept pace with the growing labour force, entrepreneurship education offers the best prospect for job creation and self-employment. Finally, 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)

4.4 Assessment and certification

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 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 a life-long learning 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.

In spite of the promise and opportunities that NQFs hold for life long skills development and harmonization of learning achievements from diverse environments, it is worth remembering that the construction of NQFs is a long and arduous process. 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). Studies are also on-going to evaluate the real value and impact of NQFs in some countries (Allais, 2010)

4.5 Skills development in the non formal and informal sectors

Informal sector employment and self employment dominate in both rural and urban areas in Africa. Traditional apprenticeships 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). In Ethiopia, the informal sector accounts for 90% of all labour market activities and jobs.²² 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).

The strength of traditional apprenticeships lies in 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, this strength 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, perpetuating the use of traditional (sometimes outmoded) learning methodologies and offering little theoretical knowledge. However, the situation appears to be evolving with the proliferation of the mobile phone and the internet. It has been reported that some garage owners in Benin do access the internet to download diagnostic software for the repair and servicing of modern high-technology automobile cars (Séverino and Ray, 2010). The challenge is how skills development in the informal sector, including the rural and agricultural sectors, can be modernized and strengthened.

4.6 Access and attractiveness of TVSD/TVET

Access to skills development opportunities should be available to all age groups and categories of learners regardless of sex, physical disability or geographical location. The participation of the youth and other vulnerable groups in skills development programs that lead to gainful employment can promote social cohesion and stability, particularly in post-conflict and fragile societies. In many countries, technical and vocational education is viewed as a last resort or second choice to general education rather than as a stepping stone to employment. The poor public perception of technical and vocational education is a contributory factor to the lack of attractiveness for 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. However, there is evidence that general education generates far higher returns than do technical and vocational education (Kahyarara and Teal, 2006). Raising the quality and improving relevance (and hence enhancing employability) may be the antidote to the perception of TVET as a safety net for the academically less-endowed or those from poor family or socio-economic backgrounds.

5. Key focus areas for the Triennale preparatory process

The broad aim of TVSD is to equip young people and adults with the skills and knowledge they need to enter the world of work. Unemployed young people run a higher risk of being drawn into illicit activities (Adam, 2008; Brewer, 2004). Skills development therefore influences positively

²² Central Statistical Authority, Ethiopia (2003). Report on urban informal sector, sample survey. January 2003

not only job security and wages for the individual, but also national economic productivity, prosperity and social cohesion through the raising of the overall level of skills available to industry. Economic growth, wealth creation and poverty reduction are critical to social cohesion.

The core issues that this sub-theme seeks to address relate to the achievement of a better understanding of how to link the acquisition of knowledge and skills to gainful employment, socio-economic growth and to the promotion of a holistic and integrated knowledge and skills training system that recognizes the diversity of learning pathways. In this regard, contributions that address the following issues deserve special consideration within the Triennale preparatory process. In particular, successful case studies relating to these issues will help nourish the experience-sharing debate and the cross-fertilization of ideas at the Triennale.

Policy and Governance

- Enabling policy framework and environment, and better coordination of the TVSD delivery system
- Innovative partnerships between training providers, the employment sector and civil society
- Good TVSD system management practices, including the participation of the private sector
- Innovative TVSD financing mechanisms, including investment in initial and continuing technical teacher education and professional development
- TVSD research, data collection, analysis and interpretation for management decision-making
- Engagement of the formal TVET sector with micro- and small enterprises and the informal sector

Quality and Quality assurance

- Innovative approaches to the upgrading of the professional and pedagogical skills of TVET/TVSD instructors and system managers
- Skills development strategies that incorporate the concept of environmental sustainability
- Integration of ICT and e-learning into the delivery of TVET/TVSD
- Application of technology and modern farm practices in the agricultural sector
- Re-structuring of the traditional apprenticeship system in order to make the system more efficient and promote the upward mobility and professional development of the apprentices
- Quality monitoring and training evaluation mechanisms, including completion and transition rates into gainful employment and higher education

Relevance and employability

- National skills inventory and labor market information systems that track the growth sectors of the economy, and other mechanisms for identifying training needs
- Contextual analysis of the different models of TVSD provision and how they enhance relevance and employability: dual systems that combine school-based and work-based training, integrating apprenticeships into the formal education system; school-based or formal TVET systems; mixed or hybrid systems that provide vocational streams within the school system.

- Government economic policies that stimulate the creation and growth of enterprises and hence the demand for employable skills
- Skills development strategies that take into account the process of globalization and the ever changing skills needs and dynamics of the real world of work

Assessment and certification

- Skills validation and certification frameworks that integrate the formal, non formal and informal sectors
- National and Regional Qualification Frameworks and their role in promoting employability and lifelong learning
- A critical analysis of the real value and impact of national qualifications frameworks, where they exist.

Access and attractiveness

- Skills development strategies that incorporate the concept of lifelong learning
- Good practices that incorporate gender, equity and access dimensions into skills development
- Pragmatic policies and practices that address the skills development needs of persons with disabilities and other vulnerable groups and the youth in fragile states or post-conflict situations
- Educational policies and interventions that enhance the attractiveness of TVSD.

Finally, in order to promote synergy between the sub-theme 2 and the overall theme of the Triennale, the following cross-cutting issues will be considered in developing the various lines of analysis: curricular approach, capacity building of teachers and trainers (particularly through the use of ICT), academic and vocational counseling aimed at fostering acquisition of critical skills, evaluation of the quality and relevance of learning, skills validation and certification, partnership-based governance and management, gender and equity, political will and commitment, accountability and transparency, and institutional framework for action.

6. Conclusion

TVSD policies have to be tailored to a country's ability to manage them and the realities of its labour market and education and training system. South Korea and Singapore both aligned technical and vocational education with the needs of high growth sectors (Law, 2008; Lee, 2008). Vietnam has invested heavily in skills development for the light manufacturing sector. Rapid economic growth creates the demand for skilled labour and resources for training. TVSD has to be integrated into a broad-based national strategy for economic growth, employment creation and poverty reduction. However, evidence from around the world, especially East Asia, suggest that there are conditions for success (Fredriksen and Tan, 2008). These include:

- The integration of TVSD into an active policy for socio-economic development
- Rapid economic growth
- Strong state capacity for coordinating the entire system, and
- Expansion of good-quality primary and secondary education that offers a sound foundation for effective skills development.

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