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**DEPARTMENT OF HUMAN RESOURCE SCIENCE AND
TECHNOLOGY**

DIVISION OF HUMAN RESOURCE AND YOUTH

**Strategy to Revitalize
Technical and Vocational Education and
Training (TVET) in Africa**

Final Draft

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List of Abbreviations

AU	African Union
BAA	Bureau d'Appui aux Artisans
BOTA	Botswana Training Authority
CBOs	Church Based Organisations
CBT	Competency Based Training
COTVET	Council for Technical and Vocational Education and Training
DRC	Democratic Republic of Congo
ICT	Information and Communication Technologies
IIEP	International Institute for Educational Planning
ILO	International Labour Organisation
MDGs	Millennium Development Goals
NGO	Non Governmental Organisation
NQF	National Qualifications Framework
NVQF	National Vocational Qualifications Framework
NVTB	National Vocational Training Board
NVTI	National Vocational Training Institute
OIC	Opportunities Industrialisation Centre
SAQA	South African Qualifications Authority
SETAs	Sector Education and Training Authorities
SITE	Strengthening Informal Training and Enterprise
TEVETA	Technical Education, Vocational and Entrepreneurship Training
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VETA	Vocational Education and Training Authority

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Executive Summary

1. Background and Introduction

There is a fresh awareness among policy makers in many African countries and the international donor community of the critical role that TVET can play in national development. The increasing importance that African governments now attach to TVET is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank. One of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVET delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty. Another important characteristic of TVET is that it can be delivered at different levels of sophistication. This means that TVET institutions can respond to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. The youth, the poor and the vulnerable of society can therefore benefit from TVET.

The African Union (AU) has a vision of “an integrated, peaceful, prosperous Africa, driven by its own people to take its rightful place in the global community and the knowledge economy.” This vision is predicated on the development of the continent’s human resources. In its Plan of Action for the Second Decade of Education (2006 – 2015), the AU recognises the importance of TVET as a means of empowering individuals to take control of their lives and recommends therefore the integration of vocational training into the general education system. The AU also recognises the fact that vast numbers of young people are outside the formal school system, and consequently recommends the integration of non-formal learning methodologies and literacy programmes into national TVET programmes.

It is within this framework that the African Union Commission is spearheading the development of a new strategy to revitalize TVET in Africa. The objectives of the strategy are:

- To revitalize, modernize and harmonize TVET in Africa in order to transform it into a mainstream activity for African youth development, youth employment and human capacity building in Africa;
- To position TVET programmes and TVET institutions in Africa as vehicles for regional cooperation and integration as well as socio-economic development as it relates to improvements in infrastructure, technological progress, energy, trade, tourism, agriculture and good governance;

- To mobilize all stakeholders in a concerted effort to create synergies and share responsibilities for the renewal and harmonization of TVET policies, programmes and strategies in Africa.

This document is not prescriptive. A credible TVET strategy must necessarily fit into an individual country's socio-economic context. The intention here, therefore, is to present a strategic policy framework and a set of practical recommendations to inform national policies and action plans aimed at promoting quality and relevant technical and vocational education and training.

2. Current Status of TVET in Africa

TVET systems in Africa differ from country to country and are delivered at different levels in different types of institutions, including technical and vocational schools (both public and private), polytechnics, enterprises, and apprenticeship training centres. In West Africa in particular, traditional apprenticeship offers the largest opportunity for the acquisition of employable skills in the informal sector. In Ghana, the informal sector accounts for more than 90 percent of all skills training in the country.

In all of Sub-Saharan Africa, formal TVET programmes are school-based. In some countries, training models follow those of the colonial power. In general however, students enter the vocational education track at the end of primary school, corresponding to 6 – 8 years of education as in countries like Burkina Faso and Kenya, or at the end of lower or junior secondary school, which corresponds to 9 – 12 years of what is called basic education in countries like Ghana, Nigeria, Mali and Swaziland. The duration of school-based technical and vocational education is between three and six years, depending on the country and the model. Some countries like Ghana, Senegal, and Swaziland in an attempt to expose young people to pre-employment skills have incorporated basic vocational skills into the lower or junior secondary school curriculum. Oversight responsibility for TVET is shared in general between the ministries responsible for education or technical education and labour or employment, although some specialised vocational training programmes (in agriculture, health, transport, etc.) fall under the supervision of the sector ministries.

With a few exceptions, the socio-economic environment and the contextual framework in which TVET delivery systems currently operate on the continent is characterised, in general, by:

- Weak national economies, high population growth, and a growing labour force;
- Shrinking or stagnant wage employment opportunities especially in the industrial sector;
- Huge numbers of poorly educated, unskilled and unemployed youth;
- Uncoordinated, unregulated and fragmented delivery systems;

- Low quality;
- Geographical, gender and economic inequities;
- Poor public perception;
- Weak monitoring and evaluation mechanisms, and
- Inadequate financing, poor management and ill-adapted organisational structures.

TVET in Africa is delivered by both government and private providers, which include for-profit institutions and non-profit, NGO and Church-based institutions. In almost all countries, non-government provision of TVET is on the increase both in terms of number of institutions and student numbers. This trend is linked to the fact that private providers train for the informal sector (which is an expanding job market all over Africa) while public institutions train mostly for the more or less stagnant industrial sector. Private providers also target “soft” business and service sector skills like secretarial practice, cookery, and dressmaking that do not require huge capital outlays to deliver. A limited amount of in-company or enterprise-based training also takes place in some countries; however, this type of training is often dedicated to the sharpening of specific skills of company employees.

3. International and African best practices and strategies

The current status of TVET in Africa is not all about weaknesses. TVET systems in a growing number of countries are undergoing or have undergone promising reforms that are designed to build on the inherent strengths of the system. The major reforms concern the setting up of national training bodies, and the enactment of laws to strengthen national vocational training programmes. The need to link training to employment (either self or paid employment) is at the root of all the best practices and strategies observed world-wide.

National Training Authorities have been set up in many countries, including South Africa, Botswana, Namibia, Zambia, and Tanzania. Ghana has also recently passed an Act of Parliament that establishes a Council for Technical and Vocational Education and Training (COTVET) which will have overall responsibility for skills development in the country. In order to achieve greater coherence within the diverse TVET system, some countries have established National Qualifications Frameworks. The South African National Qualifications Framework provides a mechanism for awarding qualifications based on the achievement of specified learning outcomes prescribed by industry. The framework allows for accumulation of credits and recognition of prior learning, which promotes the culture of life-long learning. Employers also support vocational and technical training financially by paying a levy of 1% on enterprise payrolls. In Benin, a Bureau d'Appui aux Artisans (BAA) has instituted an innovative system of complementing the skills of traditional apprentices and

master craftsmen. A similar support system for the Jua Kali informal sector in Kenya was rated highly successful.

From outside Africa, two training models stand out for mention: the centralised Singaporean model and the dual system practiced in Germany. In Singapore, a National Manpower Council ensures that training is relevant to the needs of the labour market. Training also includes the inculcation of shared cultural values and attitude development. The dual system of vocational training in Germany allows for learning to take place in a vocational school and in an enterprise concurrently. Approximately, 70% of all school leavers, aged between 15 and 19 years undergo training under the dual system. The dual system promotes the linkage of vocational training to the world of work.

4. Priority TVET areas

A recent survey conducted by the AU on the state of TVET in 18 African countries points to a number of priority areas for vocational training in Africa. The agricultural sector receives the highest priority, followed by public health and water resources, energy and environmental management, information and communication technologies, construction and maintenance, and good governance. The general recommendations from the member states include the development of appropriate competency-based curriculum in these areas and compulsory implementation of TVET programmes for students in strategic fields such as entrepreneurship, computer literacy, agriculture, and building construction. The promotion of handicrafts and other indigenous technologies was also rated as important for Africa's development.

5. Strategic Policy Framework

5.1 Key strategic issues

The key issues that the proposed TVET strategy seeks to address are the following:

- *Poor perception of TVET*

The public and even parents consider the vocational education track as fit for only the academically less endowed. In many countries, students entering the vocational education stream find it difficult, if not impossible, to proceed to higher education. There is the need to make TVET less dead-end.

- *Gender stereotyping*

Some vocational training programmes like dressmaking, hairdressing, and cookery are associated with girls - very often girls who are less gifted academically. In Benin, for example, such girls are derogatorily referred to as following the "c" option of the secondary school curriculum: *la serie "c" – couture, coiffure, cuisine!*

- *Instructor training*

The delivery of quality TVET is dependent on the competence of the teacher; competence measured in terms of theoretical knowledge, technical and pedagogical skills as well as being abreast with new technologies in the workplace.

- *Linkage between vocational and general education*

In general, vocational education and training forms a separate parallel system within the education system with its own institutions, programmes, and teachers. This situation tends to reinforce the perception of inferiority of the vocational track. It is therefore important to create articulation pathways between vocational education and general education.

- *Linkage between formal and non-formal TVET*

It should be possible for students who drop out of the school system to learn a trade to re-enter the formal vocational school system to upgrade their skills, either on part-time or full-time basis. Similarly, regular vocational school students should be able to acquire relevant practical skills in the non-formal sector.

- *Linkage of TVET to the labour market*

The ultimate aim of vocational training is employment. TVET programmes therefore have to be linked to the job market. In this way, the socio-economic relevance of TVET can be enhanced.

- *Traditional skills, business management and entrepreneurial training*

TVET programmes in Africa should help develop indigenous skills associated with the manufacture of traditional artefacts and crafts. As employment opportunities in the formal sector shrink, the acquisition of business management and entrepreneurial skills for self-employment becomes a major imperative in the design of vocational training programmes.

- *Harmonisation of TVET programmes and qualifications*

Education and training can contribute to uniting the peoples of Africa. This is possible if individual country training programmes and qualifications can be harmonised into a coherent system of mutual recognition of competencies. Portability of TVET qualifications across national frontiers can become a factor of integration in Africa.

5.2 Guiding principles

The guiding principles that are considered the major drivers of a TVET strategy for Africa are: access and equity, quality, proficiency, and relevance. The others are employability, entrepreneurship, efficiency, and sustainability. The strategy should also promote linkages and partnerships, responsible citizenship,

conservation of resources and respect for the environment, and articulation pathways throughout the system.

5.3 Main goal and vision of strategy

Taking into account the key strategic issues and guiding principles, the main goal of the strategy may be stated as follows:

Promote skills acquisition through competency-based training with proficiency testing for employment, sustainable livelihoods and responsible citizenship

The vision of the strategy is to position TVET as a tool for empowering the peoples of Africa, especially the youth, for sustainable livelihoods and the socio-economic development of the continent.

5.4 Strategic objectives

The broad objectives of the strategy are i) to deliver quality TVET, ii) assure employability of trainees, iii) improve coherence and management of training provision, iv) promote life-long learning, and v) enhance status and attractiveness of TVET.

i) Deliver quality TVET

Training for high-quality skills requires appropriate training equipment and tools, adequate supply of training materials, and practice. Other requirements include relevant textbooks and training manuals and qualified instructors with experience in enterprises. Competency Based Training (CBT) can also enhance quality. Traditional apprenticeship, particularly as practiced in West Africa, is competency based. CBT is actually learning by doing and by coaching. It is necessary to incorporate the principles and methodology of CBT into the formal technical and vocational education system. The delivery of quality TVET is also closely linked to the building of strong, professional management and leadership capacity as well as a suitable qualifications framework and monitoring mechanism to drive the entire system.

ii) Assure employability of trainees

Assuring the employability of trainees begins with effective guidance and counselling of potential trainees in the choice of training programmes in relation to their aptitude and academic background. Employability presupposes the acquisition of employable skills that are related to the demands of the labour market. Tracer studies which track the destination of graduates in the job market can provide useful feedback for the revision of training programmes so as to enhance the employability of trainees.

iii) Improve coherence and management of training provision

In order to ensure coherence and management of training provision, it will be necessary to establish a national agency or body to coordinate and drive the entire TVET system. Depending on the country, this agency could be under the umbrella of the ministry of education and vocational training or a separate and autonomous body. In either case, the coordinating agency should include representation from all relevant stakeholders, including government policy makers, employers, public and private training providers, civil society, alumni associations, and development partners.

iv) Life-long learning

Life long learning has a beneficial effect on the development of a high quality TVET system. This is because 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.

v) Enhance status and attractiveness of TVET

TVET should be promoted as a tool for economic empowerment in Africa. For this, the use of role models in TVET and the involvement of successful entrepreneurs in motivation campaigns will be necessary.

6. Strategy Implementation

The diverse nature of TVET with its longitudinal and transversal dimensions suggests that the implementation of any strategy to revitalize the sector is more likely to be successful within a national policy framework with clear implementation guidelines and policy roles for the various actors as well as action plans for resource mobilisation and allocation. Above all, political commitment to the revitalization effort can make the difference between success and failure.

6.1 Implementation structures

The first requirement for implementation of the proposed strategy is the development of a national TVET policy that sets out the government's vision for skills development. The national policy should make provision for the establishment of an apex body to oversee the implementation of the policy.

6.2 National Vocational Qualifications Framework

Another important step in the TVET policy implementation process is the development of a National Vocational Qualifications Framework (NVQF). An NVQF is indispensable for bringing coherence into the TVET system. An NVQF will prescribe proficiency requirements, qualification levels, and certification standards and increase the portability of TVET qualifications across national frontiers, when linked to other national qualification frameworks. TVET then becomes a factor of regional integration.

7. Strategy for non-formal TVET and pilot projects in post-conflict areas

7.1 Non-formal TVET

Non-formal TVET has the advantage of shorter duration, is occupation-specific and may or may not follow the standard curriculum prescribed by national educational authorities. The emphasis is on acquisition of practical skills for direct employment. For this reason, skilled craftsmen with some pedagogical training may be engaged as instructors. However, the strategies and structures for formal and non-formal TVET delivery are similar in many respects. In particular, it is important that the two TVET systems are piloted by a single national coordinating body in order to facilitate articulation between the two systems and enhance coherence and better management of the entire TVET system.

7.2 Pilot projects in post-conflict areas

The difficult conditions in war-torn and post-conflict areas, which include damaged or destroyed educational infrastructure at all levels and the shortage of teachers and skilled instructors, demand a training approach that takes into account these special circumstances. Since a good basic education enhances effective vocational training, combining literacy programmes with livelihood skills training presents the best approach to skills development in post-conflict areas. Vocational training in these areas should therefore be delivered concurrently with the teaching of basic skills such as:

- Functional literacy and numeracy;
- Family life skills (parental care and domestic skills);
- Human relations and inter-personal skills (interaction with others from different ethnic backgrounds);
- Communication and language skills (learning of a second language in multi-lingual societies);
- Human rights and good governance practices;
- Politics, culture, and history;

Emphasis should be on TVET programmes such as:

- Building and construction (including bricklaying and concreting);
- Carpentry and joinery;
- Welding and fabrication (including manufacturing of simple agricultural implements and tools);
- Agriculture (crop production and animal husbandry);
- Electrical installation and electronic equipment repair;
- Car repair and maintenance;
- Water supply and sanitation systems maintenance, including domestic plumbing works;

- Handicrafts and traditional skills;
- Basic ICT skills (word processing, data management, internet, etc.)
- Tourism-related skills (hotel management, tour guides, cooks, waiters);
- Business entrepreneurial skills and attitudes (including time management, marketing, basic accounting, micro-business management; joint ventures);

Given the scale of human resource development needs in countries emerging out of war, it will be necessary for governments to foster collaboration and partnerships with private sector training providers, including NGOs and CBOs. It is also important to put in place post-training support services for graduates and provide for the psychological support of trainees who, in many cases, are victims of abuse and the trauma and violence of war.

8. Key policy issues

A number of policy issues are critical to the successful implementation of the proposed strategy. These include: i) the need for each country to conduct an initial assessment of its national TVET system capacity; ii) linkage of the TVET strategy with other national policies and strategies; iii) linkage with relevant regional and international policies; iv) linkage with the world of work; v) instructor training and professionalisation of TVET staff; vi) funding and equipping of TVET institutions; and vii) female participation in TVET.

9. Policy roles and recommendations

Briefly, the strategy implementation roles of the various stakeholders may be summarised as follows:

9.1 African Union – Human Resources, Science and Technology Department

- Disseminate TVET strategy document widely among AU member states;
- Encourage intra-African cooperation in the field of education and training;
- Reach out to the African Diaspora to support TVET in Africa;
- Identify, document and disseminate best practices to member countries;
- Sensitize governments on the role of TVET for socio-economic development as well as the need to increase funding for TVET;
- Actively play TVET advocacy role within the international donor community;
- Offer technical assistance to member states in need of such assistance;
- Project TVET as a vehicle for regional integration;
- Monitor implementation of strategy at the continental level.

9.2 Governments

- Give legislative backing to national TVET policies;
- Improve coherence of governance and management of TVET;

- Introduce policies and incentives that will support increased private sector participation in TVET delivery;
- Partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes;
- Invest in training materials and equipment;
- Invest in TVET instructor training and enhance status of instructors;
- Institute measures to reduce gender, economic, and geographical inequities in TVET provision;
- Introduce sustainable financing schemes for TVET;
- Increase funding support to the sector;
- Set up venture capital to support TVET graduates;
- Build leadership and management capacity to drive TVET system;
- Mainstream vocational education into the general education system, so that the vocational track is less dead-end;
- Introduce ICT into TVET
- Constantly monitor and periodically evaluate the performance of the system and apply corrective measures accordingly.

9.3 Training providers

- Provide training within national policy framework;
- Develop business plans to support training activities;
- Establish strong linkages and collaboration with employers and industry;
- Mainstream gender into training activities and programmes;
- Institute bursary schemes for poor trainees;
- Strengthen guidance and counselling services to trainees;
- Network and bench-mark with other providers.

9.4 Parents and Guardians

- Support children and wards to choose the vocational education stream;
- Reject perception that TVET is for the less academically endowed.
- Lobby politicians in favour of TVET
- Support activities of training providers.

9.5 Donors and Development Partners

- Support development of national TVET policies and strategies;
- Fund TVET research and advocacy;
- Support capacity building in TVET sector
- Help in identifying and disseminating best practices in TVET
- Support TVET advocacy initiatives

9.6 Employers

Employers should:

- Deliver workplace training to employees
- Contribute financially to national training fund

- Provide opportunities for TVET teachers to regularly update their workplace experience;
- Provide opportunities for industrial attachment for trainees
- Contribute to the development of national skills standards

10. Strategy evaluation

The following criteria may be used to evaluate national TVET strategies over a period of 3 – 5 years, depending on the situation in individual countries. The criteria may be classified under i) training outcomes, ii) employment, and iii) citizenship development. The training-related criteria may include, access and equity, efficiency, trainee satisfaction, industry participation in the development of training packages, and the availability of articulation pathways within the system. The employment-related criteria may include the percentage of trainees in gainful employment after training, and how long after training it takes to be employed, wage and salary levels, employers' satisfaction with the performance of graduates, and the relevance of training to actual employment. The citizenship-related criteria would measure indicators such as public perception of TVET, level of awareness of political tolerance, ethnic diversity, national unity, human rights and respect for the rule of law, and the level of participation of trainees in the democratic process.

11. The challenge of globalisation

In Africa, globalisation has created a tension between developing skills for poverty eradication and skills for global economic competitiveness. Although the primary objective of technical and vocational training in Africa is to help alleviate poverty through the acquisition of employable skills, a strategic approach to skills development on the continent cannot ignore the effects of globalisation. In a globalising world economy, the acquisition of “industrial” skills is also important. However, the sheer lack of skills of all sorts in Africa and the demands of poverty alleviation mean that African countries must pursue the development of skills at all levels of the spectrum (basic, secondary, tertiary levels), with each country emphasizing the skill levels that correspond best to their stage of economic development and the needs of the local labour market. ICT education at all levels is also important for survival in a globalising labour market.

Another dimension of the implications of globalisation for vocational training in Africa is the flooding of markets in Africa with all manner of cheap goods and technology products from foreign countries. The question arises as to how competitive locally produced goods will be against the cheaper imported versions? National policies should therefore take into account these and other globalisation-induced factors in designing TVET programmes and courses.

12. Conclusion

This TVET strategy document provides a strategic framework for the development of national policies to address the challenges of technical and vocational training to support economic development and the creation of national wealth and contribute to poverty eradication. The document acknowledges that vocational education and training alone does not provide jobs or eradicate poverty. Good government policies do both. The strategy therefore urges governments to create an economic environment that promotes the growth of enterprises and generally stimulates the economy. When businesses develop and expand, additional labour-market demands for technical and vocational training emerge, new job opportunities are created, more people get employed, and the incidence of poverty reduces. For this to happen on a sustainable basis, however, the TVET system must be labour-market relevant, equitable, efficient, and of high quality. This strategy document provides the framework for the design and implementation of such national TVET systems.

1. Background and Introduction

*“Since education is considered the **key** to effective development strategies, technical and vocational education and training (TVET) must be the **master key** that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development”¹*

After years of benign neglect, due to a complex set of reasons that included budgetary constraints and criticisms of the World Bank in the early 90’s on its direction and focus², technical and vocational education and training (TVET) is back on the human resource development agenda of many African governments. The World Bank had cited at that time, high training costs, poor quality of training, the mismatch between training and labour market needs and the high rate of unemployment among TVET graduates as justification to recommend a policy shift away from school-based technical and vocational education and training. However, there is now a fresh awareness among policy makers in many African countries and the donor community of the critical role that TVET can play in national development. The increasing importance that African governments now attach to TVET is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank.³ In its poverty reduction strategy document, Cameroon intends to develop vocational and professional training to facilitate integration into the labour market; Cote d’Ivoire talks about strengthening vocational training; Ghana links vocational education and training with education of the youth and the development of technical and entrepreneurial skills; Lesotho and Rwanda focus on linking TVET to businesses while Malawi emphasises the need to promote self-employment through skills development. Other countries that have prioritised TVET initiatives in their national development policy documents include Chad, Ethiopia, Guinea, Senegal, Sierra Leone, Uganda and Zambia.

One of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVET delivery systems are therefore well placed to train

¹ Extract from the declaration of the participants in the UNESCO meeting of TVET experts on Learning for Work, Citizenship and Sustainability, Bonn, 2004.

² World Bank (1991): “Vocational and technical education and training” A World Bank policy paper. Washington, DC.

³ D. Bloom, D. Canning and K. Chan (2006): “Higher Education and Economic Development in Africa”, The World Bank, Africa Region Human Development, Working Paper Series – No. 102.

the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty. Another important characteristic of TVET is that it can be delivered at different levels of sophistication. This means that TVET institutions can respond to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. The youth, the poor and the vulnerable of society can therefore benefit from TVET.

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. Young unemployed people without any productive usage of their time are easily entrained into crime and violence. The risk is greatest with unemployed youth in conflict or post-conflict areas. Poverty is therefore a threat to national stability and good governance. All over the world, governments have embraced the United Nations Millennium Development Goals (MDGs) that aim to significantly reduce the number 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 partnership between developed and developing countries. The first goal of the MDGs is the eradication of extreme poverty and hunger. The key to poverty alleviation is economic growth and the creation of employment for all. However, poor people without employable skills cannot benefit from the growth process. The challenge then is to raise the productive capacity of the poor, the youth and the vulnerable of society through the acquisition of job-specific competencies.

Vision of the African Union towards TVET

The African Union (AU) has a vision of “an integrated, peaceful, prosperous Africa, driven by its own people to take its rightful place in the global community and the knowledge economy.” This vision is predicated on the development of the continent’s human resources. In its Plan of Action for the Second Decade of Education (2006 – 2015), the AU recognises the importance of TVET as a means of empowering individuals to take control of their lives and recommends therefore the integration of vocational training into the general education system. It is significant that TVET is one of the seven areas of focus adopted by the Conference of Ministers of Education of the African Union for special attention in the Plan of Action. Specifically, the AU recommends a TVET system that is based on a solid foundation of a sound general education with possibility for specialised technical training and credit transfer to further education and

training. The AU affirms the importance of quality TVET that is relevant to the needs of the labour market and is delivered in collaboration with industry and prospective employers. TVET is also acknowledged as an avenue for preserving and promoting indigenous knowledge and skills, particularly in relation to traditional arts and crafts. The AU also recognises the fact that vast numbers of young people are outside the formal school system, and consequently recommends the integration of non-formal learning methodologies and literacy programmes into national TVET programmes.

It is within this framework that the Department of Human Resource, Science and Technology of the African Union Commission is spearheading the development of a new strategy to revitalize TVET in Africa.

The objectives of the strategy are the following:

- Revitalize, modernize and harmonize TVET in Africa in order to transform it into a mainstream activity for African youth development, youth employment and human capacity building in Africa;
- Position TVET programmes and TVET institutions in Africa as vehicles for regional cooperation and integration as well as socio-economic development as it relates to improvements in infrastructure, technological progress, energy, trade, tourism, agriculture and good governance;
- Mobilize all stakeholders in a concerted effort to create synergies and share responsibilities for the renewal and harmonization of TVET policies, programmes and strategies in Africa.

The term “TVET” as used in this document follows the 1997 UNESCO International Standard Classification of Education definition, which is education and training to “acquire the practical skills, know-how and understanding necessary for employment in a particular occupation, trade or group of occupations or trades.” The conceptual definition of TVET cuts across educational levels (post-primary, secondary, and even tertiary) and sectors (formal or school-based, non-formal or enterprise-based, and informal or traditional apprenticeship). It is therefore important to take into account the transversal and longitudinal nature of TVET in any strategic policy framework.

This document is not prescriptive. A credible TVET strategy must necessarily fit into an individual country’s socio-economic context. The intention here, therefore, is to present a set of practical recommendations and implementable ideas to inform national policies and action plans

aimed at promoting quality and relevant technical and vocational education and training within a flexible delivery system. The document is also not an analytical study. However, in order to place the proposed strategy guidelines in their proper context, it is necessary to understand the current environment in which the various TVET systems operate in Africa.

2. Current Status of TVET in Africa

“Every person shall have the opportunity to have his or her experiences and skills gained through work, through society or through formal and non-formal training assessed, recognised and certified. Programmes to compensate for skill deficits by individuals through increased access to education and training should be made available as part of the recognition of prior learning programmes. Assessment should identify skill gaps, be transparent, and provide a guide to the learner and training provider. The framework should also include a credible system of certification of skills that are portable and recognised across enterprises, sectors, industries and educational institutions, whether public or private”

- Extract from the 2000 ILO International Labour Conference on Human Resources Development and Training.

TVET systems in Africa differ from country to country and are delivered at different levels in different types of institutions, including technical and vocational schools (both public and private), polytechnics, enterprises, and apprenticeship training centres. In West Africa in particular, traditional apprenticeship offers the largest opportunity for the acquisition of employable skills in the informal sector. In Ghana, the informal sector accounts for more than 90 percent of all skills training in the country.

In all of Sub-Saharan Africa, formal TVET programmes are school-based. In some countries, training models follow those of the colonial power. In general however, students enter the vocational education track at the end of primary school, corresponding to 6 – 8 years of education as in countries like Burkina Faso and Kenya, or at the end of lower or junior secondary school, which corresponds to 9 – 12 years of what is called basic education in countries like Ghana, Nigeria, Mali and Swaziland. The vocational education track has the unenviable reputation of being a dead end so far as academic progression is concerned and fit for those pupils who are unable to continue to higher education.

The duration of school-based technical and vocational education is between three and six years, depending on the country and the model. Some countries like Ghana, Senegal, and Swaziland in an attempt to expose young people to

pre-employment skills have incorporated basic vocational skills into the lower or junior secondary school curriculum. However, technical and vocational education for employment is unlikely to be effective when delivered concurrently with general education in junior secondary schools. This is because employment-oriented training requires inputs in human (qualified instructors) and material resources that are not available or too expensive to provide in all junior secondary schools or even in a cluster of secondary schools. Vocationalisation of the junior secondary school curriculum should therefore be viewed with caution. A good basic education provides a solid foundation for a good technical and vocational education. The only cases in which vocationalisation may be helpful is probably in the use of computers, general agriculture or farming and entrepreneurship. Computer literacy is relevant to all occupations while the teaching of basic agriculture and entrepreneurship are not capital-intensive or too costly.

Regarding the governance of TVET, oversight responsibility is shared in general between the ministries responsible for education or technical education and labour or employment, although some specialised vocational training programmes (in agriculture, health, transport, etc.) fall under the supervision of the sector ministries. In spite of the multiplicity of training programmes, the place of TVET in the school system in many countries is marginal both in terms of enrolments and number of institutions.⁴

The socio-economic environment and the contextual framework in which TVET delivery systems currently operate on the continent may be summarized as follows:

- **Weak national economies characterised by low job growth, high population growth, and a growing labour force:**

The per capita income of most Sub-Saharan African countries (outside South Africa) is less than US\$400. Although the economy in a few countries, including Botswana and Ghana, is growing at a respectable rate of about 5%, the annual real growth rate in many countries is less than 2%, limiting the prospects for employment creation. On the other hand, it is estimated that about 500,000 young people add to the labour force each year in Kenya, as many as 700,000 in Tanzania and 250,000 in Zimbabwe.⁵ Globally, African economies face the daunting task of finding productive employment for 7 to 10 million annual new entrants into the labour market over the next few years. This huge deficit in the employment statistics is not unrelated to the high population growth rate of African countries and the increasing number of

⁴ Atchoarena, D and Andre Delluc (2002): "Revisiting technical and vocational education in Sub-Saharan Africa". IIEP-UNESCO, Paris.

⁵ Johanson, R.K and A.V. Adams (2004): "Skills Development in Sub-Saharan Africa". The World Bank. Washington DC.

school leavers arising out of national initiatives of the past decade or two to achieve universal primary education.

- **Shrinking or stagnant wage employment opportunities especially in the industrial sector:**

Apart from Botswana, Ivory Coast, Ghana and South Africa, the industrial labour force is less than 10% in most African countries⁶. The vast majority of the workforce is in the services and agricultural sectors. In many African countries, with the notable exception of South Africa and Mauritius, about 85% of the workforce is in the informal, non-wage employment sector. This labour force distribution pattern needs to be kept in mind when developing national TVET policies and strategies.

- **Huge numbers of poorly educated, unskilled and unemployed youth:**

Although some progress has been made, the illiteracy rate in many countries is still high at over 50%. Of significance to TVET is the fact that enrolments at the secondary school level, where TVET is normally provided, is also low with only a few countries having a gross enrolment rate of over 50%. The average school completion rates in Africa are such that many young people drop out of the school system before they have acquired any practical skills and competencies for the world of work. Average completion rates are 80 – 90% for primary school; 30 – 40% for lower or junior secondary school; and about 20% for senior secondary school. And only 1 – 2% of the college age group actually enter the universities and other tertiary institutions. In Ghana, for example, 49.1% of the total workforce is illiterate and only 3.9% have had any vocational or technical training⁷. In Tanzania, less than five percent of the labour force is educated above primary school level.

- **Educated but unemployed college and university graduates:**

In almost all countries in Africa, large numbers of graduates coming out of the formal school system are unemployed, although opportunities for skilled workers do exist in the economy. This situation has brought into sharp focus the mismatch between training and labour market skill demands. Critics argue that the lack of inputs from prospective employers into curriculum design and training delivery are partly responsible for the mismatch. Another reason that is often cited for the incidence of high unemployment among graduates is the absence of entrepreneurial training in the school curriculum.

⁶ World Bank (2000): “African Development Indicators 2000”. The World Bank. Washington DC.

⁷ Ghana Statistical Service (2000): “2000 Population and Housing Census”. Accra, Ghana.

- **Uncoordinated, unregulated and fragmented delivery systems:**

Except for a few countries (notably, South Africa, Botswana, Mauritius, Tanzania, Malawi, and Namibia), TVET provision in Africa is spread over different ministries and organisations, including NGOs and church-based organisations, with a multiplicity of testing and certification standards. This situation has implications for standardization of training, cost-effectiveness, quality assurance, recognition of prior learning, and the further education of TVET graduates. In the informal sector, **traditional apprenticeship**, which is often the only means for the rural poor and the economically disadvantaged to learn a trade is marginalised, unregulated, and lacks government support and intervention. The current governance structure in many countries does not promote effective coordination, sharing of resources, and articulation within the system.

- **Low quality:**

In general, the quality of training is low, with undue emphasis on theory and certification rather than on skills acquisition and proficiency testing. Inadequate instructor training, obsolete training equipment, and lack of instructional materials are some of the factors that combine to reduce the effectiveness of training in meeting the required knowledge and skills objectives. High quality skills training requires appropriate workshop equipment, adequate supply of training materials, and practice by learners.

- **Geographical, gender and economic inequities:**

Although access and participation in TVET in Africa reflects the gender-biased division of labour (justifying therefore the current efforts of gender mainstreaming in vocational education and training), we should not lose sight of economic and geographical inequities in designing TVET strategies for poverty eradication. Economic inequity is a greater barrier to participation in technical and vocational education than gender. In many African countries, children of poor parents are unable to afford the fees charged by training institutions. Invariably, the good technical and vocational schools are located in the big towns and cities, thereby limiting access to rural folks. We see therefore a paradox of potentially crowding out of technical and vocational training those who need it most – the rural and economically disadvantaged population.

- **Poor public perception:**

For many years, technical and vocational education in Africa has been considered as a career path for the less academically endowed. This perception has been fuelled by the low academic requirements for admission into TVET programmes and the limited prospects for further education and

professional development. Worse, the impression is sometimes created by governments that the primary objective of the vocational education track is to keep dropouts or “lockouts” (i.e. students who are unable to move up the educational ladder, not because of poor grades but because of lack of places at the higher level) from the basic and secondary school system off the streets, rather than project this type of training as an effective strategy to train skilled workers for the employment market and for sustainable livelihoods.

- **Weak monitoring and evaluation:**

Current training programmes in many countries are supply-driven. TVET programmes are very often not designed to meet observed or projected labour market demands. The emphasis appears to be on helping the unemployed to find jobs, without any critical attempt to match training to available jobs. This situation has resulted in many vocational school graduates not finding jobs or finding themselves in jobs for which they have had no previous training. Non-targeted skills development is one of the major weaknesses of the TVET system in many African countries. Training institutions also do not track the employment destination of their graduates. Consequently, valuable feedback from past trainees on the quality of the training they have received and the opportunity for their experience-based inputs to be factored into the review of curricula and training packages are lost. In other words, the implementation of tracer studies that can improve the market responsiveness of training programmes is currently absent in many countries.

- **Inadequate financing, poor management and ill-adapted organisational structures:**

Only a few governments in Africa are able to finance TVET at a level that can support quality training. Ethiopia spends only about 0.5 percent of its education and training budget on TVET while Ghana spends only about 1 percent. The figure is 10 percent for Mali and 12.7 percent for Gabon. It must be recognised that TVET is expensive on a per student basis. In 1992, Gabon spent as much as US\$1,820 per TVET student.⁸ Unit costs are necessarily expected to be higher in TVET institutions than in primary and secondary schools because of smaller student-to-teacher ratios, expensive training equipment, and costly training materials that are “wasted” during practical lessons.

The diverse TVET management structures and the sharing of supervisory responsibilities by various government bodies and ministries account for some of the inefficiencies in the system like duplication and segmentation of

⁸ Johanson and Adams (2004): Ibid

training, and the absence of a common platform for developing coherent policies and joint initiatives.

- **Public versus private provision of TVET:**

TVET in Africa is delivered by both government and private providers, which include for-profit institutions and non-profit, NGO and Church-based institutions. School-based government training institutions are generally fewer in number than those in the private sector. In Ghana, government TVET institutions include 23 technical institutes under the Ministry of Education with a total enrolment of about 19,000 students and 38 National Vocational Training Institutes run by the Ministry of Manpower Development and Employment. There are an estimated 500 private establishments of diverse quality that enrol over 100,000 students. The Catholic Church is the single largest private provider of TVET in Ghana. Recently in 2006, the Church launched a comprehensive policy for technical and vocational training in its 58 institutions that currently enrol about 10,000 students.

In almost all countries, non-government provision of TVET is on the increase both in terms of number of institutions and student numbers. This trend is linked to the fact that private providers train for the informal sector (which is an expanding job market all over Africa) while public institutions train mostly for the more or less stagnant industrial sector. Private providers also target “soft” business and service sector skills like secretarial practice, cookery, and dressmaking that do not require huge capital outlays to deliver. On the other hand, the first choice of students is the public schools because of the lower fees charged and the perception of better quality. Women constitute the majority of students in private institutions (76 percent in Ghana; 60 percent in Tanzania and Zimbabwe; 55 percent in Senegal).⁹ For obvious reasons, for-profit private providers are often concentrated in the urban centres, while Church-based institutions tend to be based in rural and economically disadvantaged locations.

The distribution of TVET providers in Africa is skewed in general in favour of private providers. In Tanzania, public institutions account for only 8 percent of the total number of institutions, while enterprise-based training (at 22 percent), for-profit institutions (at 35 percent), and Church/NGO providers (at 31 percent) make up the bulk of the private sector institutions. In Zambia, public TVET provision is at 18 percent, while Church/NGO and for-profit providers take up 18 percent and 36 percent, respectively.¹⁰ It is important to distinguish within the private providers, in-company or enterprise-based training that is often dedicated to the sharpening of specific skills of company employees or is designed to train potential employees to perform professional tasks related to the company’s activities.

⁹ Johanson , R.K and A.V. Adams (2004): Ibid

¹⁰ Kitaev et al. (2002) cited in Johnson and Adams (2004).

State support for non-government providers vary from country to country. In Ghana, government support is currently limited to the payment of salaries of selected key management and teaching staff and small grants for administrative purposes. In some francophone countries (Cote d'Ivoire and Mali), non-government providers receive much more substantial support.¹¹

- **Situation in conflict and post-conflict societies:**

War and conflict situations have destroyed the TVET delivery system in countries like Liberia, Sierra Leone and the Democratic Republic of Congo (DRC). According to the African Union, approximately 300,000 Liberians are internally displaced, and about 320,000 are refugees in neighbouring countries. There are approximately 300,000 child soldiers under 18 years in the world, half of whom are in Africa.¹² In war-affected zones, capacity for skills development is limited and the school system suffers from low enrolment and completion rates. The TVET system in these countries is characterised by damaged infrastructure and inadequate human resources due to the death or displacement of instructors and other workers. Also, many households are headed by women. Vocational training can therefore help reintegrate the victims of war and violence into mainstream society.

- **Threat of HIV/AIDS:**

The impact of HIV/AIDS on the labour force in Africa (and hence its potential effect on vocational and technical training and skills development strategies) is considered alarming in a number of countries. According to the United Nations AIDS Prevention Agency (UNAIDS), an estimated 3.8 million adults and children in Sub-Saharan Africa became infected with HIV during 2000, bringing the total living with HIV/AIDS to 25.3 million.¹³ However, information is scarce on how African governments have factored the threat of HIV/AIDS into their TVET programmes. Yet the technical and vocational training environment, because of the inevitable use of cutting tools and machines for training, presents a constant danger for the spread of the disease and puts the trainees at risk.

The current status of TVET in Africa is not all about weaknesses. TVET systems in a growing number of countries are undergoing or have undergone promising reforms that are designed to build on the inherent strengths of the system and respond to the challenges of the 21st century. This is evidenced by the active participation of the private sector in the TVET system, the large number of master craftsmen and women, the resilience of the traditional apprenticeship

¹¹ Johanson and Adams (2004): Ibid

¹² African Union (2006): "The Status of Youth in Africa". AU, Addis Ababa.

¹³ Johanson and Adams (2004): Ibid

system, the setting up of national training bodies, and the enactment of laws to strengthen national vocational training programmes and policies.

Some African and international best practices in TVET delivery are summarised and discussed in the next chapter.

3. International and African best practices and strategies

“Far from disappearing from the African educational scene, as some observers were predicting, technical and vocational education is undergoing change and modernization in an effort to better meet the needs of the labour market without sacrificing its social function”

- Gudmund Hernes (former Director, IIEP-UNESCO)

The primary objective of all technical and vocational education and training programmes is the acquisition of relevant knowledge, practical skills and attitudes for gainful employment in a particular trade or occupational area. The need to link training to employment (either self or paid employment) is at the base of all the best practices and strategies observed world-wide. In recent years, in view of the rapid technological advances taking place in the labour market, flexibility, adaptability, and life-long learning have become the second major objective. The third objective, which is particularly important for Africa, is to use TVET as a vehicle for economic empowerment and social mobility and for the promotion of good governance and regional integration.

Table 1 below summarizes the innovations/best practices in TVET strategy on the African continent and elsewhere and the lessons learned. The information in the following pages is based largely on the book by Johanson and Adams (*Skills development in Africa*) and complemented by the author’s own analyses.

Table 1: Innovations and best practices from African and international experiences.

Country	Innovation	Impact	Lessons
South Africa	National Qualifications Framework (NQF) established to provide mechanism for awarding qualifications based on achievement of specified learning outcomes. Implementation of the NQF,	Effective co-ordination of the TVET system, better coherence of the qualification structure, including	The introduction of the NQF has been slow due to bureaucratic bottlenecks. Sustainability of the training levy depends on the

	<p>which includes recognition of prior learning, lies with the South African Qualifications Authority (SAQA). Learning outcomes are specified by employer-dominated Sector Education and Training Authorities (SETAs). A skills development fund, alimented by a 1% levy on enterprise payrolls, has been instituted. Eighty percent of the levy goes to the SETAs for sector-specific training programmes while 20% is used to finance other skills development initiatives outside the enterprises being levied – principle of “cross-subsidization”.</p>	<p>accumulation of credits and recognition of prior learning. Greater market relevance of training programmes and financial involvement of industry in the development of skills.</p>	<p>continued cooperation of the enterprises being taxed.</p>
<p>Ghana</p>	<p>An apex body known as the Council for technical and vocational education and training (COTVET) has been established by an Act of Parliament under the Ministry of Education to oversee all TVET activities. A National Apprenticeship Training Board is to be established under COTVET to handle issues concerning registration, training content, duration and certification under the auspices of the Ghana National Training Authority. The National Vocational Training Institute (NVTI) currently allows for the proficiency testing of illiterate trainees, including traditional apprentices, who submit their skills to practical, non-written evaluation. The Opportunities</p>	<p>COTVET is expected to address the issue of multiplicity of oversight responsibility and testing standards within the TVET system. Government has pledged to assume full responsibility for the first year of apprenticeship training. The NVTI initiative has allowed for illiterate trainees to enter the formal job market on the basis of their skills</p>	<p>It is early days yet to assess the effectiveness of COTVET. However, policy measures are needed to ensure that the proposed registration and regulation of private training providers does not result in the creation of a parallel formal system and a loss of diversity in training provision.</p>

	Industrialisation Centres (OICs) provide post-training support and follow-up services to their trainees.	proficiency certificates. The transition from school to the world of work is eased by the OIC post-training support system.	
Tanzania	The Vocational Education and Training Authority (VETA) that has overall responsibility for coordinating vocational education and training has developed and tested new training approaches for the informal sector. The concept involved designing an integrated training programme (technical and managerial skills, and literacy if necessary) and finding local training providers for implementation. Attempts were made to link up trainees with credit and business development providers.	The quality of goods and services produced by the informal sector trainees involved in the programme improved, and sales and profits increased.	For the informal sector, a mix of technical and business skills (record-keeping, pricing, marketing, and customer relations) and literacy (if necessary) should be provided.
Kenya	The Kenyan NGO SITE (Strengthening Informal Training and Enterprise) ran a project to improve traditional apprenticeship training using master craftsmen recruited through Jua Kali associations as host trainers. The basic skills (technical skills, business skills, and teaching methods) of the host trainers were first upgraded. The objective was to strengthen the capacity of master craftsmen to provide	Host trainers improved their training of apprentices by improving content and quality and concentrating training on productive activities. The number of their apprentices increased by between 15 percent and 20 percent.	Master craftsmen are not enthusiastic if training is only about technical skills. Also, collaboration with informal sector trade associations in the design and implementation of training programmes is of prime importance.

	quality training to their apprentices. In all, 420 master craftspersons were trained and 1400 apprentices received improved training from the trained host trainers.		
Benin	<p>The Bureau d'Appui aux Artisans (BAA) seeks to complete the training of traditional apprentices. The BAA works through the various trade associations. The BAA links the master craftspersons and apprentices who are members of the trade associations to reputable public or private sector training providers for complementary training. The BAA's role is limited to that of financier and technical adviser while the trade associations implement and supervise the training through activities such as collaborating in the development of new training modules, participating in the selection of trainees, negotiating the fee for the instructors, monitoring the attendance of the apprentices, co-organising the trade test at the end of the training, and participating in the evaluation of the training. Master craftspersons also benefited from the training, especially skills upgrading, but such training took place in the workshop of one of the participating master craftspersons.</p>	<p>The training changed the approach and improved the methods of training of the master craftspersons. The apprentices who have received complementary training became more precise, responsible and confident.</p>	<p>The notion of complementary training of their apprentices is new to master craftspersons, so they need to be "hooked" to the idea. Public and private sector providers of complementary training need to be well endowed with excellent training equipment and instructors with enhanced technical skills and well adapted teaching methodologies.</p>
Singapore	A National Manpower	Training is	Social capital or

	<p>Council brings together the Ministries of Manpower, Education, and Trade and Industry to determine manpower targets from the Institutes for Technical Education, the Universities and Polytechnics. The Ministry of Education has the primary responsibility for ensuring longer term supply of skills in relation to national development targets. Training also involves the inculcation of shared cultural values and attitude development.</p>	<p>relevant to labour market needs. Attention to attitude development leads to a hardworking and disciplined workforce.</p>	<p>the development of shared national values is as important as human capital or technical skills formation.</p>
<p>Germany</p>	<p>The dual system of vocational training in Germany allows for learning to take place in a vocational school and in production facilities or in the service industry concurrently. Trainees receive training in a company three or four days per week and at a part-time vocational school one or two days per week. Training in the dual system is open to all young people. Job centres help in arranging placements for training and companies themselves also offer trainee positions. Training agreements must be signed between the company and the trainee. The purpose of the tuition received at the vocational school is to supplement the training received by students in companies at a theoretical level and to fill gaps in general education. The dual system is governed by legislation under the</p>	<p>Approximately 70% of all school leavers, aged 15 – 19 years undergo training under the dual system. Vocational training is linked closely to the world of work.</p>	<p>Dual training requires an industrial fabric that does not exist in many African countries. In-company training can be expensive and companies must be willing to offer training.</p>

4. Priority TVET areas

A recent survey conducted by the AU on the state of TVET in 18 African countries ¹⁴ has revealed the priority areas for vocational training in Africa. The agricultural sector receives the highest priority, followed by public health and water resources, energy and environmental management, information and communication technologies, construction and maintenance, and good governance. The general recommendations from the member states include the development of appropriate competency-based curriculum in these areas and compulsory implementation of TVET programmes for students in strategic fields such as entrepreneurship, computer literacy, agriculture, and building construction. The promotion of handicrafts and other indigenous technologies was also rated as important for Africa's development.

The priority areas for which key skills and competencies are needed for socio-economic development in Africa may be summarised as follows. The overall objective of promoting these vocational training courses is to alleviate poverty and meet the Millennium Development Goals (MDGs):

- **Agriculture and rural development**

Skills are required for the application of improved agricultural techniques and technologies to traditional farming, improving soil fertility, and agro-processing, food preservation and storage. Other areas include diversification of crops as well as urban farming and gardening. In promoting agriculture and rural development through the infusion of scientific knowledge and technical skills, socially and culturally embedded practices should not be ignored.

- **Public health and water resources**

Africa needs human resources to help improve public access to healthcare, good drinking water, disease prevention, sanitation, and nutrition. In this regard, TVET programmes in basic healthcare, traditional medicine, drugstore management, and public hygiene will be necessary.

- **Energy and environmental management**

¹⁴ HRST Department (June 2006): "Recommendations from member states on how to revitalize VTE in Africa".

The availability of adequate energy to drive Africa's development remains one of the biggest challenges of the continent. Training is required in the development and use of alternative energies (in particular, solar energy), natural resources management, environmental management, and land development and administration.

- **Information and communication technologies (ICT)**

The emphasis should be on the acquisition of basic computer literacy skills, basic programming, and network and data management, as well as computer hardware maintenance. The teaching of ICT skills for secretarial work is also important.

- **Construction and maintenance**

Vocational skills are needed in areas such as building and construction, electrical installation and maintenance, electronic equipment repair, car maintenance, welding and fabrication, road construction, agricultural infrastructure (irrigation, construction of small dams, post-harvest systems, and agricultural mechanisation). Maintenance courses should cover not only plant and equipment maintenance, but also building maintenance.

- **Indigenous and cottage industries**

Informal systems of passing knowledge and skills from one generation to another always have been part of Africa's history. The formal education system has largely ignored the teaching of traditional skills. A diverse TVET system should be able to accommodate structured vocational training programmes in areas such as handicrafts and pottery, baking, painting, carpentry, tailoring, basketry, and leatherwork. To be effective, such training aimed at developing rural industries should incorporate the acquisition of basic business management skills.

- **Good governance**

The history of conflicts in Africa points to a gaping lack of appreciation of basic democratic principles of political tolerance and respect for human rights. The strengthening of technical human resource alone cannot guarantee Africa's development in a climate of strife, violence and conflict. It is therefore important that all vocational training programmes incorporate the teaching of political and citizenship skills such as participatory democracy, political awareness, attitudes to authority, the rule of law, respect for human rights, social cohesion and national reconciliation (in particular, for post-conflict areas).

5. Strategic Policy Framework

*“What I hear, I forget;
What I see, I remember;
What I do, I understand”*

- Chinese proverb

The main purpose of this document is to define strategies and policies to revitalize formal and non-formal TVET in Africa in light of the socio-economic needs of the continent to address youth unemployment, build human capacity and contribute to poverty eradication. The strategic policy goal is to position TVET as a vehicle for stimulating economic growth, reducing poverty, and promoting responsible citizenship and good governance. How can this be achieved? We will first discuss the key issues that the strategy must address.

5.1 Key strategic issues

- **Poor perception of TVET**

The public and even parents consider the vocational education track as fit for only the academically less endowed. In many countries, students entering the vocational education stream find it difficult, if not impossible, to proceed to higher education. There is the need to make TVET less dead-end.

- **Gender stereotyping**

Some vocational training programmes like dressmaking, hairdressing, and cookery are associated with girls - very often girls who are less gifted academically. In Benin, for example, such girls are derogatorily referred to as following the “c” option of the secondary school curriculum: *la serie “c” – couture, coiffure, cuisine!*

- **Instructor training**

The delivery of quality TVET is dependent on the competence of the teacher; competence measured in terms of theoretical knowledge, technical and pedagogical skills as well as being abreast with new technologies in the workplace.

- **Linkage between vocational and general education**

In general, vocational education and training forms a separate parallel system within the education system with its own institutions, programmes, and teachers. This situation tends to reinforce the perception of inferiority of the vocational track. It is therefore important to create articulation pathways between vocational education and general education.

- **Linkage between formal and non-formal TVET**

It should be possible for students who drop out of the school system to learn a trade to re-enter the formal vocational school system to upgrade their skills, either on part-time or full-time basis. Similarly, regular vocational school students should be able to acquire relevant practical skills in the non-formal sector.

- **Linkage of TVET to the labour market**

The ultimate aim of vocational training is employment. TVET programmes therefore have to be linked to the job market. In this way, the socio-economic relevance of TVET can be enhanced.

- **Traditional skills, business management and entrepreneurial training**

TVET programmes in Africa should help develop indigenous skills associated with the manufacture of traditional artefacts and crafts. As employment opportunities in the formal sector shrink, the acquisition of business management and entrepreneurial skills for self-employment becomes a major imperative in the design of vocational training programmes.

- **Special case of post-conflict zones**

The difficult political and socio-economic conditions in countries affected by war and conflict, which include dilapidated educational infrastructure and shortage of teachers, calls for the design of special TVET programmes for such countries.

- **Harmonisation of TVET programmes and qualifications**

Education and training can contribute to uniting the peoples of Africa. This is possible if individual country training programmes and qualifications can be harmonised into a coherent system of mutual recognition of competencies. Harmonisation in this context does not mean the uniformisation of courses and programmes. It means the readability and permeability of training qualifications across national boundaries. Portability of TVET qualifications across national frontiers can become a factor of integration in Africa.

- **Inadequate technical expertise to drive TVET system**

There is a general lack of professional TVET managers and policy makers with adequate expertise and insight in the formulation and implementation of vocational education and training programmes. The TVET staff in many countries lack the technical capacity to develop national qualifications,

courses, competency-based curricula and training packages as well as quality assurance and accreditation standards in TVET.

- **Inefficient operational and funding mechanisms**

In many countries, the parent ministry centrally controls the public TVET institutions, leaving little room for innovation on the part of the institutions. There is need to increase the operational autonomy of public training providers through decentralization and devolution of management powers to the institutions. Operational autonomy can be balanced by output-based funding mechanisms that link government funding to institutional performance in the area of success rates, innovation, employability of trainees, etc.

5.2 Guiding principles

What are the guiding principles that should inform and underpin the TVET strategy for Africa? We consider the following principles the major drivers:

- **Access and equity**

The strategy should not discriminate on the basis of social status, ethnic or religious affiliation, age, or academic background. Efforts should be made to eliminate or reduce gender, economic and geographical inequities that limit access.

- **Quality**

Quality, defined as a measure of the training received in meeting the knowledge and skills objectives, is at the heart of effective vocational training.

- **Proficiency**

The training must measure proficiency, rather than theoretical knowledge. Training must emphasize proficiency-testing where trainees demonstrate their practical competences rather than follow the strictly examination and certification approach.

- **Relevance**

The training system must be flexible, demand-driven and respond to the needs of the trainee, the community and the local industry.

- **Employability and entrepreneurship**

The acquisition of employable and entrepreneurial skills is one of the major objectives of a credible vocational training system

- **Efficiency**

Training should give value for money. What is the expenditure per student per year, and what is the failure or dropout rate? Can the same type of training be

delivered at cheaper cost? The concern is about the internal efficiency of the training process with regard to the relationship between inputs (mainly time and money) and graduate output.

- **Sustainability**

The strategy must incorporate measures that ensure that the training institutions and training providers will continue operating and delivering their programmes in a cost-effective manner.

- **Linkages and partnerships**

Strategy must promote strong linkages and partnerships with the world of work and other stakeholders in the TVET system.

- **Subsidiarity**

Subsidiarity is the concept of encouraging training institutions and training providers to concentrate on the type of training they can best deliver and supporting them to reach their highest potential rather than making them dependent on government or donor support.

- **Moral and ethical values**

Effective vocational training must not only teach technical and business skills but also moral and ethical values like honesty, respect for others, and not defining others as the opposite of oneself.

- **Responsible citizenship**

Training must include elements of good governance and responsible citizenship such as democracy and basic human rights.

- **Conservation**

It is important to include the teaching of subjects that promote the conservation of resources and respect for the environment in the various vocational training programmes.

- **Articulation**

An effective TVET strategy should provide for both vertical and horizontal linkages within the system, such that trainees can enter and leave the training system at a given level and re-enter at another without difficulty.

5.3 Main goal and vision of strategy

Taking into account the key strategic issues and guiding principles discussed above, the main goal of the strategy may be stated as follows:

Promote skills acquisition through competency-based training with proficiency testing for employment, sustainable livelihoods and responsible citizenship.

The vision of the strategy is to position TVET as a tool for empowering the peoples of Africa, especially the youth, for sustainable livelihoods and the socio-economic development of the continent.

5.4 Strategic objectives

The broad objectives of the strategy are i) to deliver quality TVET, ii) assure employability of trainees, iii) improve coherence and management of training provision, iv) promote life-long learning, and v) enhance status and attractiveness of TVET.

i) Deliver quality TVET

Training for high-quality skills requires appropriate training equipment and tools, adequate supply of training materials, and practice by the learners. Other requirements include relevant textbooks and training manuals and qualified instructors with experience in enterprises. Well-qualified instructors with industry-based experience are hard to come by, since such categories of workers are also in high demand in the labour market. But they could be suitably motivated to offer part-time instruction in technical and vocational schools.

Technical education is expensive and quality comes at a price. There is no substitute for adequate funding when it comes to delivering quality vocational education and training. In this regard, a training fund can be established to support TVET from payroll levies on employers. Training levies are in effect taxes imposed on enterprises to support skills development. Although the tax level is generally less than 2 percent of the enterprise payroll, the cooperation of employers is necessary for the successful implementation of such a scheme. Training levies are in operation in several African countries, including Cote d'Ivoire, Mauritius, Mali, South Africa, and Tanzania.

Competency Based Training (CBT) can also enhance quality. The concept of competency-based training is not new to Africa. Traditional apprenticeship, particularly as practiced in West Africa, is competency based. A competency is the aggregate of knowledge, skills and attitudes; it is the ability to perform a prescribed professional task. CBT is actually learning by doing and by coaching. It is necessary to incorporate the principles and methodology of CBT into the formal technical and vocational education system. However, since the development and implementation of competency-based qualifications (involving standards, levels, skills recognition and institutional arrangements) are very costly in terms of training infrastructure and staff capacity, piloting of the CBT approach in a few economic and employment growth areas is recommended, rather than a wholesale reform strategy. Students should be encouraged to build a portfolio of projects undertaken or

items produced as evidence of proficiency and proof of ability to perform prescribed professional tasks.

The delivery of quality TVET is also closely linked to the building of strong, professional management and leadership capacity to drive the entire system. Quality in this document should be defined as “fit for purpose”, rather than as measuring up to an ill-defined standard. A decentralised and diverse system as recommended in the strategic policy framework (school-based training, enterprise-based training, and apprenticeship training (non-formal and informal) requires a strong regulatory framework for training curricula, standards, qualifications and funding. A suitable qualifications framework and inspection system will provide the necessary quality assurance and control mechanism within a diverse system.

ii) Assure employability of trainees

Assuring the employability of trainees begins with effective guidance and counselling of potential trainees in the choice of training programmes in relation to their aptitude and academic background. Employability presupposes the acquisition of employable skills that are related to the demands of the labour market. Affordability of training is also another factor. Who pays for the training of the poor? Poverty is not capital. Therefore, if TVET must help reduce poverty, then a system of support for the poor must be put in place. Such a support system may include the award of bursaries and the offering of services (like cleaning and farming) by poor trainees to the training provider to offset training fees. Tracer studies which track the destination of graduates in the job market can provide useful feedback for the revision of training programmes so as to enhance the employability of trainees.

iii) Improve coherence and management of training provision

In order to ensure coherence and management of training provision, it will be necessary to establish a national agency or body to coordinate and drive the entire TVET system. Depending on the country, this agency could be under the umbrella of the ministry of education and vocational training or a separate and autonomous body. In either case, the coordinating agency should include representation from all relevant stakeholders, including government policy makers, employers, public and private training providers, civil society, alumni associations, and development partners.

Some countries in Africa have already established National Training Authorities to coordinate and oversee the work of training providers in the formal, non-formal and informal sectors. Training Authorities, through their various specialised organs and occupational advisory committees, have the responsibility to develop national vocational qualification frameworks and

proficiency levels as well as standards for validation of training, certification and accreditation of training institutions. National Training Authorities have been formed in countries like:

- Botswana: The Botswana Training Authority (BOTA) monitors and regulates vocational education and training in the country;
- Mauritius: The Industrial and Vocational Training Board (IVTB), among other things, monitors the needs for training in consultation with relevant authorities, designs and develops training curricula, and provides for, promote, and assist in the training or apprenticeship of persons who are or will be employed in commercial, technical and vocational fields;
- Namibia: The National Vocational Training Board (NVTB) is entrusted with the responsibility of establishing minimum standards of vocational training with a view to regulating and promoting the efficiency of such training, including the development of vocational standards, trade testing procedures and certification arrangements, among others;
- Tanzania: The Vocational Education Training Authority (VETA) supervises the development of all aspects of vocational training in the country;
- Zambia: The Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) not only coordinates training demands but also provides technical assistance to both public and private training providers.

Ghana has recently established by an Act of Parliament a Council for Technical and Vocational Education and Training (COTVET) within the country's TVET Policy Framework. The Council is expected to establish an Apprenticeship Training Board to link non-formal and informal vocational training to the formal TVET sector. Private training providers, including NGOs and Church Based Organisations (CBOs) are represented on COTVET.

Strengthening the management and coherence of training provision cannot be complete without a National Vocational Qualifications Framework (NVQF) that ensures the transfer of learning credits and mutual recognition of qualifications within the entire system. The development of a qualifications framework is not an easy task. It involves the active involvement of industry practitioners, teachers, and policy makers. However, NVQFs are critical to the success of articulation mechanisms within the TVET system. In some countries, the appointment of TVET Coordinators at the district and regional levels may strengthen overall coordination at the national level.

It is necessary to make a distinction between a national vocational qualifications framework and a national qualifications framework that extends beyond vocational qualifications. As an example, Tanzania is developing a 10-level national qualifications framework (NQF), ranging from craftsman qualifications (level 1 – 3) through technician, diploma, and bachelors degree qualifications to masters degree (level 9) and doctorate degree award at level

10. It is, however, too early to evaluate the Tanzanian experience or recommend it to other countries.

iv) Promote life-long learning

Life long learning has a beneficial effect on the development of a high quality TVET system. This is because 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. Life-long learning also involves the recognition of prior learning, whether in the formal or non-formal system. A National Qualifications Framework can provide the needed coherence of the TVET system through the creation of equivalent qualifications across all the sub-sectors: formal, non-formal and informal.

v) Enhance status and attractiveness of TVET

The last but not least strategic objective is to promote TVET as a tool for economic empowerment in Africa. This will also involve changing perceptions and attitudes of the public about technical and vocational education. For this, the use of role models in TVET and the involvement of successful entrepreneurs in motivation campaigns will be necessary. An embarrassing shortage of role models is one of the banes of TVET. The use of the electronic media to promote TVET may be particularly effective, as has been shown in Uganda through the TV soap opera “Hand in Hand” and the film “The Other Choice” in Ghana. Finally, networking among TVET experts can translate into increased visibility and funding for the sector.

6. Strategy Implementation

“In Africa, we are very good at drawing up strategies and plans but when it comes to implementation, there is always a difficulty”

- A common African saying

The diverse nature of TVET with its longitudinal and transversal dimensions suggests that the implementation of any strategy to revitalize the sector is more likely to be successful within a national policy framework with clear implementation guidelines and policy roles for the various actors as well as action plans for resource mobilisation and allocation. The national policy framework should address issues such as:

- a) How to improve the operational flexibility and responsiveness of the entire TVET system as well as the efficiency of capacity utilisation of individual TVET institutions in terms of their available human, physical, and financial resources through performance reviews and audits;

- b) How to strengthen the linkages between TVET and employment promotion;
- c) Upgrading the knowledge and skills of TVET managers and professional staff to meet the requirements of managing the new strategy;
- d) Re-orientation of funding mechanisms towards output-based funding, i.e. linking funding to performance; and
- e) Skills training in the non-formal and informal sectors of the economy.

Above all, political commitment to the revitalization effort can make the difference between success and failure.

6.1 Implementation structures

The first requirement for the implementation of the proposed strategy is the development of a national TVET policy that sets out the government's vision for skills development. The formulation of such a policy could be assigned to a task force with cross-sectoral representation of all major stakeholders, including representatives of public and private training providers, employers, government ministries responsible for human resource development, development partners, civil society, and experts. The report of the task force will then form the basis for the national TVET policy.

Invariably, the national policy will make provision for the establishment of an apex body or agency to oversee the implementation of the policy, which is the next step in the implementation process. This apex body, the composition of which will include all relevant stakeholders from both public and private sectors, may be known as a Council (as in Ghana) a Board (as in Mauritius) or an Authority (as in Malawi, Zambia, and Namibia), but its functions will include the establishment of various implementation organs under it. These organs will have responsibility for curriculum development and resource mobilisation, regulation and accreditation of training providers, quality assurance, and monitoring and evaluation, among others. Depending on the prevailing conditions in a particular country, an Apprenticeship Training Board may be established with special responsibility for the informal training sector and traditional apprenticeship. In many parts of West Africa, and to a lesser extent in Kenya (the Jua Kali sector), traditional apprenticeship is the only avenue for many disadvantaged youth to acquire employable skills. And it works, in spite of the fact that the sector rarely benefits from any form of government support. According to a report of the International Labour Organisation (ILO), "it is quite remarkable that traditional apprenticeship has been sustained with little government cost and intervention."¹⁵ It is this resilience and culture-friendly nature of traditional apprenticeship that some governments want to tap into by bringing it into the national framework for vocational education and training.

¹⁵ Fluitman, F. (1992): "Traditional Apprenticeship in West Africa: Recent Evidence and Priority Options". Discussion Paper No. 34, ILO, Geneva.

6.2 National Vocational Qualifications Framework

Another important step in the TVET policy implementation process is the development of a National Vocational Qualifications Framework (NVQF). An NVQF is indispensable for bringing coherence into the TVET system. The development of a qualifications framework is a tedious and laborious exercise that requires the participation of employers, industry experts, and technical teachers. An NVQF will prescribe proficiency requirements, qualification levels, as well as validation and certification standards. Although an NVQF is normally tailored to a country's technological profile, it is necessary to keep in mind the need to link up national qualifications frameworks with regional frameworks. The objective here is to increase the portability of TVET qualifications across national frontiers, such that TVET becomes a factor of regional integration.

7. Strategy for non-formal TVET and pilot projects in post-conflict areas

7.1 Non-formal TVET

Non-formal TVET, defined as the opposite of formal TVET that is school-based with a rigid curriculum, has the advantage of shorter duration, is occupation-specific and may or may not follow the standard curriculum prescribed by national educational authorities. In addition, the entry qualifications of trainees can be extremely variable. However, the strategies and structures for formal and non-formal TVET delivery are similar in many respects. In particular, it is important that the two TVET systems are piloted by a single national coordinating body in order to facilitate articulation between the two systems and enhance coherence and better management of the entire TVET system.

Another characteristic of non-formal TVET delivery is the emphasis on the acquisition of practical skills for direct employment. For this reason, skilled craftsmen with some pedagogical training may be engaged as instructors. On the contrary, teachers in the formal TVET delivery system are required to be certified graduates of technical teachers colleges with relevant vocational teachers' qualifications.

The implementation of pilot projects in post-conflict areas is in many respects similar to the delivery of non-formal TVET.

7.2 Pilot projects in post-conflict areas

Africa has been a theatre of war and conflict over the past two decades. Apart from the large number of deaths and injuries, millions of people have been displaced from their homes. Displaced people, especially women and girls, have been targets for exploitation, rape and abuse. Young people and even children have been drawn into combat as child soldiers. In post-conflict zones, former child soldiers and other young people who have experienced war and violence can be helped to re-integrate society. Vocational education and training is one of the most effective ways of imparting employable skills to such vulnerable members of society. However, there are challenges that must be addressed.

The difficult conditions in war-torn and post-conflict areas, which include damaged or destroyed educational infrastructure at all levels and the shortage of teachers and skilled instructors, demand a training approach that takes into account these special circumstances. Since a good basic education enhances effective vocational training, combining literacy programmes with livelihood skills training presents the best approach to skills development in post-conflict areas. Vocational training in these areas should therefore be delivered concurrently with the teaching of basic skills such as:

- Functional literacy and numeracy;
- Hygiene, nutrition, sanitation, and disease prevention (including HIV/AIDS prevention);
- Family life skills (parental care and domestic skills);
- Creative thinking and analysis of information;
- Human relations and inter-personal skills (interaction with others from different ethnic backgrounds);
- Communication and language skills (learning of a second language in multi-lingual societies);
- Human rights and good governance practices;
- Politics, culture, and history;
- National unity and reconciliation.

Emphasis should be on short-duration, occupation-specific TVET programmes. In particular, pilot projects for post-conflict areas should target skills acquisition related to infrastructure development, basic socio-economic activities, and local community needs. Training should be geared to programmes that require low capital investments in terms of equipment and tools for training and for business start-ups. The implementation and coordination structures described in the preceding chapter may be complemented by the following operational strategies:

- Training should be assigned to accredited training providers, public or private;
- Training packages should be employment-led and demand-driven;

- The curriculum should be a combination of core compulsory life skills courses and elective vocational skills courses of short duration (6 – 18 months), modular in conception, business and entrepreneurship oriented, and small class sizes (maximum of 30 trainees per class);
- The training providers should be responsible for initial selection of trainees as well as guidance and counselling;
- The funding mechanism should be output-based, in accordance with agreed performance indicators that may include numbers trained (completion rates), course type and level, percentage of graduates in gainful employment six months after training, etc.
- Training methodology may include one day per week attachment or internship with local businesses, building contractors, entrepreneurs, master craftsmen, etc. for practical training.

In post-conflict areas in particular, the availability of post-training support services is of utmost importance to prevent unemployed trainees from sliding back into crime and violence. Post-training support includes follow-up and mentoring of graduates, access to micro financing, etc. In this regard, Senegal offers a good example of financing mechanisms to support the self-employment of trained youth. In terms of coordination, the two-tier system of national and regional offices as in Rwanda is worthy of consideration. Although non-formal vocational training in post-conflict countries must necessarily take into account the overall national reconstruction plan, the following pilot programme areas are recommended:

- Agriculture (crop and animal production, agro-food processing, irrigation, etc.);
- Building and construction services (masonry, carpentry, painting and decorating, interior design, electrical installation, plumbing, etc.);
- Water and sanitation systems maintenance;
- Welding and fabrication (including the manufacture of simple agricultural implements and tools);
- Electrical and electronic equipment repair;
- Vehicle repair and maintenance;
- Handicrafts and traditional crafts (carvings, weavings, basketry, leatherwork, etc.);
- Basic ICT skills (word processing, data management, internet, etc.)
- Tourism-related skills (hotel management, tour guides, cooks, waiters); and
- Business entrepreneurial skills and attitudes (including time management, marketing, basic accounting, micro-business management; joint ventures);

Given the scale of human resource development needs in countries emerging out of war, it will be necessary for governments to foster collaboration and partnerships with private sector training providers, including NGOs and CBOs, in order to increase and extend the opportunities for training to as many people as

people. It may also be necessary to organise a forum for countries emerging out of conflict (from Africa and elsewhere) to share experiences and best practices. In the same regard, neighbouring countries with a conflict past may come together to establish Regional Technical Teacher Training Centres to promote the cost-effective sharing of resources, reconciliation, and portability of teacher qualifications. Teachers may also be recruited from the world of work and given pedagogical training at these Centres, especially where there are acute shortages of certified vocational teachers.

Rwanda is a good example of a post-conflict country with an aggressive human resource development agenda. Although TVET provision is split between several ministries (as in many other countries), the country has established a Human Resource Development Agency that has overall responsibility for skills development. There are more than 70 technical and vocational schools under the Ministry of Education and many more Youth Training Centres, which operate under the Ministry of Youth, Sports, Culture and Vocational Training. Training at these centres is linked directly to the world of work and includes courses that are related to infrastructure development, such as construction, welding, electrical installation and plumbing.

Finally, vocational training in post-conflict areas must be preceded by a conscious effort on the part of the authorities to address the psychological trauma, pain and emotional disorders suffered by survivors. Given the particularly difficult learning and socio-economic environment prevailing in post-conflict communities, the successful implementation of vocational training programmes requires that certain conditions are met. These conditions may be considered as the ingredients for success of TVET programmes in post-conflict countries:

- Total support of national governments and development partners
- Competent coordinating bodies at the national and district levels
- Competent training providers
- Accountability and transparency
- Out-put based funding mechanism
- Adequate training resources
- Access to markets of products and services
- High quality of training
- Careful initial selection, and continuous guidance and counselling of trainees;
- Availability of effective post-training support services for graduates.

In summary, the broad strategy for non-formal TVET and implementation of pilot projects in post-conflict areas may be outlined as follows:

- a) Establish and empower national body or agency to oversee training;
- b) Marshall training resources – human, physical, financial;
- c) Emphasize basic education skills;
- d) Incorporate family life skills into training;
- e) Include politics, culture, and history lessons;

- f) Encourage private training providers to play lead role in training;
- g) Concentrate on short modular training packages;
- h) Offer market-relevant courses;
- i) Link graduates to sources of micro-financing and other post-training support services;
- j) Provide psychological support to trainees, survivors of abuse and violence of war.

8. Key policy issues

The successful implementation of the proposed strategy will require that thorough consideration be given to the following critical policy issues:

8.1 Initial assessment of existing TVET system

It will be necessary for each country to first assess the existing national TVET system capacity, including funding levels and budget utilization, strengths, weaknesses and deficiencies before embarking on a large-scale system reform or expansion strategy. There is therefore the need to conduct country-specific baseline studies that also explore the existing links with the other levels of education and national labour policies.

8.2 Linkage with other national policies and strategies

Each country will have to define and specify clear articulation lines between TVET and other sectors of the national economy in order to effectively link the TVET strategy to other national strategies and policies in the area of education and training, employment, and socio-economic development.

8.3 Linkage with regional and international policies

How does the national TVET strategy dovetail into existing regional and international education and training policy frameworks and protocols? National TVET strategies should take into account the education and training protocols of regional groupings like ECOWAS, SADC, and COMESA (where they exist), and those of acknowledged international agencies involved in education and skills training, such as UNESCO, ADEA, and ILO.

8.4 Linkage with the world of work

Since the ultimate objective of TVET is employability and employment promotion, it is necessary to link training to the needs of the labour market. TVET must be relevant and demand-driven, rather than supply-driven and a stand-alone activity. In order to do this, data is required on the actual employability of TVET graduates, available job opportunities, and the evolving skills demands on the

labour front. Determining the demand for skills is best achieved through country-specific Labour Market Information Systems (LMIS) and other survey instruments. The function of a labour market information system or labour market “observatory” is to collect, process and make employment projections from information provided by employment ministries and agencies, demographic surveys, tracer studies that track the employment destination of TVET graduates, labour market related reports produced by economic think-tanks, and feedback from employers. An effective LMIS will be difficult to establish and operate now in many African countries for the simple reason that there is a dearth of data and information from which labour market trends can be captured, as well as lack of trained research staff with adequate technical expertise to run the system. In the short term, however, indicative labour market information can be gathered from trade and employer associations, NGOs, employment agencies, as well as large public and private sector employers. Training institutions can also conduct local labour market surveys in and around their localities. Information so gathered and analysed would then serve as inputs for the development of new or revised courses and programmes, equipment and learning materials selection, instructor formation, and guidance and counselling of trainees.

8.5 Instructor training and professionalisation of national TVET staff

The professional and pedagogical competence of the technical teacher is crucial to the successful implementation of any TVET strategy. Governments should therefore make conscious efforts, not only to train but also to retain technical teachers in the system. Technical teachers may be suitably motivated through equitable remuneration packages and incentive schemes that may include government subventions and loans to teacher associations and special credit facilities for teachers to acquire cars, houses, etc.

TVET system managers, professionals and policy deciders will also have to be trained and their skills upgraded to enable them confidently drive the new strategy with its various implementation structures, e.g. qualifications framework, accreditation standards, assessment guidelines, quality assurance and accountability frameworks. The International Labour Office (ILO) has considerable experience and expertise in the design and implementation of such large-scale training programme reforms in TVET and may be approached for technical assistance in this regard.

8.6 Funding and equipping TVET institutions

On a per student basis and compared with other levels of education, in particular primary and secondary education, TVET is much more expensive to deliver. There is the need therefore to spread the funding net as wide as possible to include:

- **National Governments:** Governments should allocate a respectable percentage of their national budgets to the TVET sector

- **Employers:** Employers, both public and private, should contribute to a training levy based on a percentage of their enterprise payrolls.
- **Development Partners:** The African Development Bank, for example, supports country-specific projects, multinational projects, and micro-financing schemes.
- **Trainees:** Fees paid by trainees should cover their training costs
- **Training Providers:** Training providers can raise funds internally through the operations of their production units
- **Community:** Local communities can make cash and non-cash contributions in the form of land and through community fundraising activities.
- **Donors:** Individuals or groups (e.g. wealthy individuals, churches or faith-based organisations, NGOs) can support TVET through donations.
- **Venture capital fund:** Young entrepreneurs can benefit from such a fund to start their own businesses.

A key policy issue in this strategy is the need to empower TVET institutions to manufacture their own small training tools and equipment. This is possible and should be encouraged.

8.7 Female participation in TVET

Serious inequities exist with regard to the participation of women in TVET. Women are underrepresented in many areas of skills development. Conscious efforts should be made to encourage equitable access to TVET by young women, not only in relation to jobs identified with women (e.g. sewing, hairdressing, cookery, etc.) but also in the male-dominated engineering or industrial sectors.

9. Policy roles and recommendations

We now highlight briefly the policy and strategy implementation roles of the various stakeholders as recommendations for action:

9.1 African Union – Human Resources, Science and Technology Department

- Disseminate TVET strategy document widely among AU member states;
- Encourage intra-African cooperation in the field of education and training;
- Reach out to the African Diaspora to support TVET in Africa;
- Identify, document and disseminate best practices to member countries;
- Sensitize governments on the role of TVET for socio economic development as well as the need to increase funding for TVET;
- Actively play TVET advocacy role within the international donor community;

- Offer technical assistance to member states in need of such assistance;
- Promote TVET as a vehicle for regional integration;
- Monitor implementation of strategy at the continental level.

9.2 Governments

- Give legislative backing to national TVET policies;
- Improve coherence of governance and management of TVET;
- Introduce policies and incentives that will support increased private sector participation in TVET delivery;
- Improve capital investment in TVET;
- Establish TVET management information systems for education and training, including labour market information;
- Institute measures to reduce gender, economic, and geographical inequities in TVET provision;
- Introduce sustainable financing schemes for TVET;
- Increase funding support to the sector;
- Set up venture capital to support TVET graduates;
- Build leadership and management capacity to drive TVET system;
- Mainstream vocational education into the general education system, so that the vocational track is less dead-end;
- Introduce ICT into TVET
- Constantly monitor and periodically evaluate the performance of the system and apply corrective measures accordingly.

9.3 Training providers

- Provide training within national policy framework;
- Deliver a flexible and demand-driven training;
- Develop business plans to support training activities;
- Establish strong linkages and collaboration with employers and industry;
- Mainstream gender into training activities and programmes;
- Introduce ICT into training
- Institute bursary schemes for poor trainees;
- Training institutions should be encouraged to be profit-oriented and to become active operators in the training market;
- Strengthen guidance and counselling services to trainees;
- Network and bench-mark with other providers;
- Involve community, parents and guardians in training activities.

9.4 Parents and Guardians

- Support children and wards to choose the vocational education track;
- Reject perception that TVET is for the less academically endowed;
- Lobby politicians in favour of TVET;
- Support activities of training providers.

9.5 Donors and Development Partners

- Support development and implementation of national TVET policies and strategies;
- Fund small business development research;
- Fund acquisition of training equipment;
- Support post-training support services;
- Support capacity building in TVET sector – instructor training, management training, technical assistance, etc.
- Help in identifying and disseminating best practices in TVET;
- Support TVET advocacy initiatives, motivation campaigns and programmes.

9.6 Employers

- Deliver workplace training to employees
- Contribute financially to national training fund
- Provide opportunities for TVET teachers to regularly update their workplace experience;
- Provide opportunities for industrial attachment for trainees
- Contribute to the development of national skills standards.

10. Strategy evaluation

The following criteria may be used to evaluate national TVET strategies over a period of 3 – 5 years, depending on the situation in individual countries. The criteria may be classified under i) training outcomes, ii) employment, and iii) citizenship development

i) Training-related criteria

- *Access and equity*: How has the strategy improved accessibility to vocational training and reduced economic, gender, and geographical inequities? How many child-soldiers, for example, have been trained?
- *Efficiency*: How efficient is the TVET system in relation to trainee input – output ratios? What are the dropout rates?
- *Proficiency*: Have the trainees attained the specified proficiency standards?
- *Trainee satisfaction*: Are the trainees satisfied with the training they have received?
- *Industry participation*: How effectively have employers and industry participated in the training programmes?
- *Articulation*: Is there improvement in the linkages and articulation pathways within the TVET system?

ii) Employment-related criteria

- *Employment after training*: What is the percentage of trainees in gainful employment after training, and how long after training does it take to be employed?
- *Wage/Salary levels*: Are earnings of trainees comparable to those of holders of similar or equivalent qualifications?
- *Employers' satisfaction*: Are employers satisfied with the performance of graduates?
- *Relevance of training to actual employment*: Are trainees employed in the skills area they have been trained?

iii) Citizenship-related criteria

- *Public perception of TVET*: Has the poor public perception of TVET changed for the better?
- *Social cohesion*: Has the level of awareness of political tolerance, ethnic diversity, and national unity increased?
- *Good governance*: Has the level of understanding of human rights and respect for the rule of law increased? What is the level of participation of trainees in the democratic process?

11. The challenge of globalisation

“You have no choice, this is inevitable. These forces of change driving the future don’t stop at national boundaries, don’t respect tradition. They wait for no one and no nation. They are universal.”

- Tony Blair, British Prime Minister.

The challenge of globalisation for TVET in Africa is the tension it has created between developing skills for poverty eradication and skills for global economic competitiveness. Although the primary objective of technical and vocational training in Africa is to help alleviate poverty through the acquisition of employable skills, a strategic approach to skills development on the continent cannot ignore the effects of globalisation. In a globalising world economy, driven by the ease of information exchange, financial flows, and the movement of people, labour, goods and services across national boundaries, each country will have to adopt skills development policies and strategies that give them a competitive edge.

For this reason, the acquisition of “industrial” skills is as important to Africa as the basic vocational and technical skills. In the advanced developing countries like Singapore and Malaysia, the rise to economic prominence was supported by the development of high level technical skills. However, the experience of these countries shows that their industrial lift-off was preceded by high stocks of literacy and basic skills. The sheer lack of skills of all sorts in Africa and the demands of poverty alleviation mean that African countries must pursue the

development of skills at all levels of the spectrum (basic, secondary, tertiary levels), with each country emphasizing the skill levels that correspond best to their stage of economic development and the needs of the local labour market.

Modern society is characterised by the increasing application of information and communication technologies. ICT education therefore must form a strong component of all levels of skills training. In the globalising labour market, employees are regularly required to update and upgrade their knowledge and skills in order to remain abreast with the rapid technological changes in the workplace. Quality, relevance, flexibility, technology-mediated learning, and life-long learning constitute the education and training bench-mark for skilled human resource development in the knowledge-driven economies of today.

Interestingly, globalisation can offer Africa opportunities for high-level technical skills training through the process of technology transfer. In effect, technology-rich multinational and trans-national corporations, if suitably motivated, can become important private sector training providers of high-level industrial skills within the TVET system of their host countries.

However, the downside of globalisation for vocational training in Africa is the flooding of markets in Africa with all manner of cheap goods and technology products from foreign countries. What is the market for a locally produced wooden chair when the imported plastic version is cheaper? Again, how competitive is the cost of a locally sewn dress against cheaper imported second-hand clothes? National policies should therefore take into account these and other globalisation-induced factors in designing TVET programmes and courses.

12. Conclusion

This TVET strategy document provides a strategic framework for the development of national policies to address the challenges of technical and vocational training to support economic development and the creation of national wealth and contribute to poverty eradication. The strategy addresses the cross-cutting issues of employability, relevance, collaboration between training institutions and employers, accreditation of training providers (in the formal, non-formal and informal sectors), assessment, certification and quality assurance of training programmes, and portability of vocational qualifications across national boundaries. In this regard, it is necessary for each country to formulate a national TVET policy and establish a national training coordination agency and its implementation organs to drive the policy.

The strategy presents TVET as a valid passport to a well-paid job or self-employment or higher education and not as an alternative educational opportunity fit only for early school leavers, the less academically endowed or the

poor. The strategy recommends a TVET system that is competency-based and employment led, with proficiency testing as proof of competence.

It is strongly recommended that vocational training be integrated into general education so that it becomes less dead-end. In addition to the acquisition of vocational, agricultural, technical, and business skills, it is necessary to incorporate political and citizenship skills into the curriculum.

The strategy document acknowledges that vocational education and training alone does not provide jobs or eradicate poverty. Good government policies do both. The strategy therefore urges governments to create an economic environment that promotes the growth of enterprises and generally stimulates the economy. When businesses develop and expand, additional labour-market demands for technical and vocational training emerge, new job opportunities are created, more people get employed, and the incidence of poverty reduces. For this to happen on a sustainable basis, however, the TVET system must be labour-market relevant, equitable, efficient, and of high quality. This strategy document provides the framework for the design and implementation of such national TVET systems.